

LEVERAGING ON UNIVERSITY'S ELECTRONIC MAILING SYSTEM FOR EFFECTIVE PROVISION OF SELECTIVE DISSEMINATION OF INFORMATION IN IBRAHIM BADAMASI BABANGIDA LIBRARYFUT, MINNA, NIGER STATE.

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Abstract

This research is on the use of university's emailing system in the provision of effective selective dissemination of information in Ibrahim Badamasi Babangida library, Federal University of Technology, Minna. Emailing system is a technology that can be deployed on any mobile technologies especially mobile smart phones, tablets, and other handheld devices. Preliminary investigations revealed uncertainty on the rate of use of mobile technology in providing SDI in the university's library neither is there a comprehensive database captured for such purpose. As a result, this research is aimed at studying the level of awareness the provision of SDI has attained in the university, the presence of mobile technology infrastructure put in place, hindrances to provision of this service via mobile technology and necessary steps to curb the stated hindrances and challenges. A survey research design was adopted for the study and the target population were the academic researchers and librarians whom were administered questionnaires and interviewed respectively. A total of 755 copies of questionnaires was administered; 389 copies were returned and found usable. The collected data was analyzed and presented using simple percentages and frequency counts. Majority of the respondents were male across different ranks in the academic cadre and two librarians were interviewed. Findings revealed that lack of constant internet data bundle and mobile access to emails hinders effective access to SDI on the part of researchers; while lack of standard policy for SDI provision, bureaucratic processes for considering submitted reports as well as funding of internal projects and network downtime are challenges on the part of librarians. The study recommended that there should be improved SDI awareness among researchers through HOD's and Deans of Schools especially during board meetings, and adopting an automated SDI system supported with a clear-cut policy for SDI provision in the university.

Keywords: Selective Dissemination of Information, Libraries and ICT, Mobile Technology, E-mailing systems, Librarians, FUT Minna.

Introduction

The world has indeed become a global village, due to the unimaginable speed in the Information and Communication Technology industry, therefore bringing about an awakening in the part of information managers, disseminators, in fact information professionals in general, whom are the custodians of the library and its resources.

Kamau (2010) perceived the library, to be an organization that acquires, organizes, stores, retrieves, and disseminates all forms of information, stating the primary and universally accepted functions of any library. The library is a collection of resources in a variety of formats that is duly organized by information professionals or other experts who provide convenient physical, digital, bibliographic, information or intellectual access and offer targeted services and programs with the mission of educating, informing, or entertaining a variety of audiences with the goal of

stimulating individuals' learning and advancing society as a whole (Eberhart, 2010). The library in an academic environment is imperative, as faculty members alone cannot provide all necessary and needed information resources to enrich students. So too, faculty members rely on their researches in line with the professional aid of librarians, in providing the intellectual information resources needed.

One of the most notable information service, and an avenue for meeting researchers information needs is SDI which entails the creating of a database, using profiles of researchers in the created database to extract information such as, field of study, teaching and research interests and subsequently making available to them very relevant information resources as regards their profile toward ensuring they reach their intended research goals in due time. This can only be achieved where librarians engage frequently in relevant scholarly surveys in areas of perceived needs and arising problems for optimal solution discovery which sounds juicy for researchers appeal. Hence, librarians become highly equipped based on need for assessment to meet the targeted present peculiarities, and in other words making librarians important agents of development in the society (Nkiko and Iroaganachi, 2015).

Selective Dissemination of Information service is a basic necessity in information delivery in academic libraries, as many researchers would love to be kept abreast with information regards their area of study, but then librarianship must blend in with the trends in mobile technologies and applications to avail itself in not just an informative and tasking manner but also interesting way to avoid boring its users, but rather keeping them enthusiastic and more interested in what the librarian and the library entirely has to offer constantly. This can therefore be checkmated by the librarian with the help and permission of the library by constantly updating of his/her technical knowhow on best ways to deliver better form of service to users, which also implies following up the latest and trending information and communication technology knowledge, gadgets, tools, applications, programs etc.

Karak (2016) noted that the proper and professional use of various mobile technological devices and mediums such as; personal digital assistants (PDAs), smart phones, social media, really simple syndication (RSS), book marking, podcasts, instant messaging, social online public access catalogue (SOPAC) and e-mailing systems among other numerous library friendly mobile technologies by librarians, in the provision of SDI will do great to the researchers productivity. Without arguments, the idea of librarians acquainting themselves with mobile technologies and adequately using them for providing SDI services will skyrocket their service delivery and relevance to the researchers they serve in an academic setting such as Federal University of Technology, Minna.

The university's emailing system is deployed on the Google mail platform and as such, staff and students of the university have access to personalized email addresses as requested. Example of a staff's university email address is abc@futminna.edu.ng while students uses xyz@st.futminna.edu.ng respectively.

The purpose of this study is to evaluate the use of mobile technology through leveraging on university's emailing systems in the provision of SDI in Ibrahim Badamasi Babangida library of Federal University of Technology, Minna Niger state of Nigeria.

Statement of the Problem

In line with the 21st century developments, use and application of Information and Communication Technology (ICT) in activities and services of the library is the order of the day. The academic library which upholds tasking responsibilities of making available research resources in diverse formats to faculty members is expected to be more technically inclined in the

use of up to date technology such as mobile technology in the provision of selective dissemination of information service to clients so as to keep them abreast by providing new information resources on their subject area of interest or research topics in a bid to effectively achieve set goals of the institution.

However, preliminary investigations revealed that the rate in use of mobile technology especially use of university's emailing system in providing Selective Dissemination of Information (SDI) in Ibrahim Badamasi Babangida Library FUT Minna is not clear, neither is there a comprehensive database or profile of patrons for such purpose. To this effect, there is a need for conducting an evaluative study on the use of mobile technology for effective SDI in IBB library FUT Minna for enhanced service delivery.

The study was guided by the following objectives which were set to determine:

1. Extent of awareness, on the use of mobile technology in the provision of selective dissemination of information;
2. User's level of satisfaction with Selective Dissemination of Information using mobile technology;
3. Availability and adequacy of mobile technology infrastructure put in place for Selective Dissemination of Information service in the library;
4. Factors militating against the use of mobile technology and its application in selective dissemination of information;

Use of Mobile Technology for SDI

Iwuoha, Chinaka and Okafor (2012) affirmed the fact that a librarian, as the right information personnel, provides selective dissemination of information (SDI) for library users in all possible forms be it digital, electronic or with the use of mobile technology. Suthar (2013) asserts that SDI is a form of library service in which information can be passed across to users in respect to their research interests. It can be from different new and latest e-journals, articles or even related magazines. It can be made available to the intended user through wide range of mobile devices and networks, remotely. They can access and search the same over their mobile networks and the service can also be received through their university's email address.

Selective Dissemination of Information is an advanced means of information provision that requires an effective selection and sifting of information resources on research areas of users made available in their registered profile in the library. In essence, the librarian embarks on a literature wide range search and collates relevant materials that can earnestly satisfy the research activities of the user involved and making it available via mobile technology (Ahmed, 2012).

Challenges in the Use of Mobile Technology for SDI

A major challenge in using mobile technologies in libraries is the defiant attitude of some library users in Nigeria in adopting the use of ICT entirely. Challenges as to the use of mobile technology are inevitable that despite the many benefits derived from mobile technologies in Nigeria, there are several other factors militating against their usage. Chad and Miller (2005) asserts that qualified librarians with requisite technical knowhow, skills and experience specifically in the areas of innovations such as mobile technology, and deployment of ICTs in library services and operations are lacking. However, librarians are at a stage where self-development and improvement is inevitable for sustenance of relevance in the field.

Several studies highlighted that the major challenge facing digital revolution in African's higher education is inadequate knowledge, skills and competencies on the part of human resources (Kandiri, 2012).

Research Methodology

A survey research design was adopted for the study. The population of study comprises of researchers from the nine (9) Schools and forty (40) Departments in Federal University of Technology, Minna; and librarians in the Systems Unit that are in charge of SDI in the Ibrahim Badamasi Babangida library of Federal University of Technology, Minna.

The nine schools are: School of Agriculture and Agricultural Technology (SAAT), School of Engineering and Engineering Technology (SEET), School of Entrepreneurship and Management Technology (SEMT), School of Environmental Technology (SET), School of Information Communication Technology (SICT), School of Physical Sciences (SPS), School of Life Sciences (SLS), and School of Technology Education (STE).

The population figures presented in the table below were gotten from the Office of the Registrar, of Federal university of technology, Minna. Also, the population of Professional Librarians in charge of SDI were gotten from the Head of Systems Unit of the Ibrahim Badamasi Babangida library of Federal University of Technology, Minna.

Furthermore, Krejcie and Morgan (1970) Table was used for determining the sample size from the given population of study.

Table 1: Study Population and Sample Size

S/N	SCHOOL	POPULATION	SAMPLE
1.	School of Engineering and Engineering Technology	200	132
2.	School of Information and Communication Technology	66	59
3.	School of Entrepreneurship and Management Technology	45	40
4.	School of Environmental Technology	138	103
5.	School of Agriculture and Agricultural Technology	108	86
6.	School of Physical Sciences	124	95
7.	School of Life Sciences	60	52
8.	School of Technology Education	60	52
	Total	801	619
	Professional Librarians	4	2

Data was collected using copies of questionnaire for researchers, and an interview schedule was designed for librarians in charge of SDI in FUT Minna library. The questionnaire instruments were deployed by the researchers and respondents were expected to complete and return them on the spot. In events whereby respondents are not able to comply on the spot, the researcher revisited another day for retrieval of the answered questionnaire from the respondents. The interview sessions with the librarians were recorded with their permission using a phone recorder.

Method of Data Analyses

Data gathered from questionnaires were analyzed with the use of simple descriptive method which involves the use of percentages, frequency counts using tables and figures in presenting various relevant data in the research work, while data gotten from oral interviews were transcribed and further analyzed to extract major points relevant to the study.

Data Presentation and Analyses**Questionnaire Response Rate****Table 2: Response Rate**

S/N	SCHOOL	Distributed	Returned
1.	School of Engineering and Engineering Technology	132	74 (56%)
2.	School of Information and Communication Technology	59	29 (49%)
3.	School of Entrepreneurship and Management Technology	40	19 (46%)
4.	School of Environmental Technology	103	49 (46%)
5.	School of Agriculture and Agricultural Technology	86	54 (63%)
6.	School of Physical Sciences	95	83 (87%)
7.	School of Life Sciences	52	37 (71%)
8.	School of Technology Education	52	44 (85%)
	Total	619	389 (63%)

Out of the total 619 copies of questionnaire distributed, only 389 was retrieved across all departments in the various schools in FUT Minna giving a total percentage of 63% response rate. Further analyses will therefore be based on the returned rate of 389.

Demographic Information of Respondents**Table 3: Gender Distribution**

Gender	Response	Percentage (%)
Male	198	51
Female	191	49
Total	389	100

Table 3 describes the gender distribution of the total respondents. The result shows that 198 (51%) of the total respondents were male while 191(49%) of the total respondents are female.

Table 4: Rank of Respondents

Rank	Response	Percent (%)
Asst. lecturer	133	34
Lecturer I-II	111	29
Senior lecturer - Associate	79	20.3
Professor		
Professor	63	16
None	3	0.7
Total	389	100

Table 4 describes the rank of the total respondents. The result shows that 133 (34%) of the total respondents are assistant lecturers, 111(29%) of the total respondents are lecturer I-II, 79(20.3%) of the total respondents are senior lecturer and Associate professor, 63(16%) of the total respondents are professor and 3(0.7%) of the total respondents opted for none of the options.

4.2: Analyses of Research Questions

Research Question 1: What is the extent of awareness in the use of mobile technology for selective dissemination of information?

Table 5: Has the library helped in your work pursuit or research?

Statement	Yes	Percent	No	Percent
Has the library helped in your work pursuit or research?	353	90.7	36	9.3

Table 5 shows the result of library impact on respondent's research outputs or work pursuit. The result shows that 353 (90.7%) of the total respondents indicated that the library has helped them in their work pursuit and research while 36(9.3%) of the total respondents indicated that the library has not helped their work pursuit or research.

Table 6: Rating of the standard of services offered by the library

Statement	VeryHigh (%)	High (%)	Medium (%)	Low (%)	VeryLow (%)
How would you rate the standard of services offered?	72(18.5)	143(36.7)	97(24.9)	77(19.7)	0(0)

Table 6 describes the rate of the standard of services offered by the library to respondents. The result shows that 72(18.5%) and 143(36.7%) of the respondents opted that the standard of the services offered by the library to them is very high and high respectively, while 97(24.9%) and 77(19.7%) of the respondents opted that the standard of the services offered to them by the library is medium and low respectively.

Table 7: Relationship between respondents and library staff

Statement	VeryHigh (%)	High (%)	Medium (%)	Low (%)	VeryLow (%)
How would you rate your relationship with the library staff?	112 (28.8)	113 (29)	75 (19.3)	33 (8.5)	56 (14.4)

Table 7 describes the relationship between respondents and library staff. The result shows that 112(28.8%) and 113(29%) of the total respondents opted that the relationship between them and the library staff is very high and high respectively, while 75(19.3%) and 33(8.5%) of the total respondents opted that the relationship between them and the library staff is medium and low. In the same vein 56(14.4%) of the total respondents opted that the relationship between them and the library staff is very low.

Table 8: Awareness of Selective Dissemination of Information (SDI) before now

Statement	Yes	Percent (%)	No	Percent (%)	Not sure	Percent (%)
Have you heard of Selective Dissemination of Information (SDI) before now?	119	30.6	211	54.2	59	17.7

Table 8 describes the awareness of respondents to Selective Dissemination of Information before now. The result shows that majority of the total respondents 211(54.2%) are not aware of Selective Dissemination of Information while 119(30.6%) of the total respondents have heard about Selective Dissemination of Information before now.

Research Question 2: Are users satisfied with the Selective Dissemination of Information services rendered through the use of mobile technology?

Table 9: Have you ever benefitted from Library's SDI service?

Statement	Yes	Percent (%)	No	Percent (%)	Not sure	Percent (%)
Have you ever benefitted from the Library's SDI service?	115	29.6	217	55.8	57	14.7

Table 9 describes the result of those who have benefitted from library's SDI services. The result shows that among the respondents who have heard about SDI before now, majority of the respondents 217(55.8%) have not benefitted from the library's SDI services, 57(14.7%) of the respondents are not sure if they have benefitted from library's SDI services while 115(29.6%) of the respondents opted that they have benefitted from library's SDI services.

Table 10: Medium of SDI service delivery to beneficiaries

Medium	Response	Percent (%)
Social Media e.g. Facebook, Twitter etc.	0	0
SMS	39	33.9
University E-mail	76	66.1
Manual presentation of material	0	0
Total	115	0

Table 10 describes the means through which the SDI service was delivered to the beneficiaries. The result shows that majority of the respondents 76(66.1%) and 39(33.9%) got the library's SDI service through SMS and their University e-mail addresses.

Table 11: Rating of the SDI service received

Statement	VeryHigh (%)	High (%)	Medium (%)	Low (%)	VeryLow (%)
How will you rate the SDI servicereceived?	13 (11.3)	23 (20)	21 (18.3)	47 (40.9)	11 (9.5)

Table 11 describes respondents rating of the SDI service received. The result shows that 13(11.3%) and 23(20%) of the respondents indicated that the SDI service they received were very high and high respectively, 21(18.3%) and 47(40.9%) of the respondents opted the SDI service received were medium and low respectively, while 11(9.5%) of the respondents opted that the SDI service received was very low.

Research Question 3: What is the availability and adequacy of mobile technology infrastructure put in place for Selective Dissemination of Information service?

Table 12: Availability of a Functional University e-mail

Statement	Yes	Percent (%)	No	Percent (%)
Do you have a functional university e-mail?	315	81	74	19

Table 12 describes the availability of functional University e-mail. The result shows that majority of the total respondents 315(81%) have a functional University e-mail while 74(19%) of the total respondents does not have functional University e-mail.

Table 13: Accessibility to the available University e-mail from your mobile device

Statement	Yes	Percent (%)	No	Percent (%)
Can you access your university e-mail from your mobile device?	215	68.3	100	31.7

Table 13 describes accessibility to available university e-mail from the mobile device. The result shows that the majority of the respondents 215(68.3%) opted that they can access their university e-mail from their mobile device while 100(31.7%) of the respondents cannot access their mails from their mobile devices.

Table 14: Frequency of accessing your e-mail

Statement	Always (%)	Sometimes (%)	Rarely (%)	Not at all (%)
How often do you access your e-mail?	235 (60.4)	71 (18.3)	83 (21.3)	0(0)

Table 14 describes how often respondents access their e-mail. The result shows that 235(60.4%) and 71(18.3%) of the respondents do access their e-mail always and sometimes while 83(21.3%) of the respondents rarely access their mails.

Table 15: Provision of SDI services via mobile technology using e-mail

Statement	Excellent (%)	Great idea (%)	Somehow acceptable (%)	Not acceptable (%)
What do you think of providing SDI services via mobile technology using e-mail?	175 (45)	133 (34.2)	81 (20.8)	0(0)

Table 15 describes respondents view on providing SDI services via mobile technology (e-mail). The result shows that 175(45%) and 133(34.2%) of the respondents opted that providing SDI services via mobile technology is an excellent and great idea respectively, while 81(20.8%) of the respondents said providing SDI services via mobile technology is not acceptable.

Table 16: Impact of SDI service on research productivity

Statement	Yes	Percent (%)	No	Percent (%)	May	Percent (%)
Do you think that the provision of SDI service using mobile technology would help improve your research productivity?	317	81.5	72	18.5	0	0

Table 16 describes the respondents' opinion on provision of SDI services using mobile technology as a catalyst to research productivity. The result shows that majority of the total respondents 317(81.5%) opted that the provision of SDI service using mobile technology will help improve their research productivity while 72(18.5%) of the respondents said that the provision of SDI service using mobile technology will not make any difference to their research.

Research Question 4: What are the factors militating the use of mobile technology and its application in Selective Dissemination of Information?

Table 17: Hindrance to benefitting from the SDI service

Statement	Response	Percent (%)
Lack of a university e-mail address	83	21.3
Lack of mobile access to university e-mail	11	2.8
Inadequate internet data subscription	333	86
Poor relationship with librarians in charge of SDI in the library	74	19

Table 17 describes factors that can hinder the respondents from benefitting from SDI service. The result shows that inadequate internet data subscription is the highest factor 333(86%) that can hinder the respondents from benefitting from SDI service, followed by lack of University e-mail address with 83(21.3%). In the same vein, 74(19%) and 11(2.8%) of the total respondents indicated poor relationship with librarians in charge of SDI in the library, and lack of mobile access to University e-mail respectively is another factor that can hinder them from benefitting from SDI service.

Discussion of Findings

This study observed the use of mobile technology in providing SDI in IBB (Ibrahim Badamasi Babangida) library of FUT Minna and has observed that the service provision is still very low. Most researchers as studied have no idea of the existence of this service in the University library, while others have never heard of it before seeing it on the questionnaire presented to them, hence keeping them left out from benefitting from it.

Recent advancements in the use of mobile technology for providing library services such as SDI has attained a level of complete automated SDI systems as pointed out by Vimal and Chitra(2008) as applicable in some Indian academic libraries. The findings of the study negates the existence of such automated systems in the FUT Minna library thereby restricting the provision of SDI to manual methods. This practice affects the range of coverage for the provision of the service, as the ratio of the professional librarians capable of handling this service to the vast multitude of researchers ready to benefit from the service is numerically contrasting in all ramifications. That is, the librarians' staff strength is minute compared to the researchers yearning for the provision of this service.

The findings of this study also negates the opinion of Barnes and Lescault (2011) on the use of social media for provision of SDI as none of the respondents supported the use of such medium for delivering of their specific information. Findings also revealed that most respondents have very low or zero presence on social media platforms, hence agreeing to Karak (2016) strong adherence to use of emails for various service delivery in the library such as the SDI. Furthermore, majority of the respondents prefer SDI service to be delivered via their emails as it will help improve their research productivity.

Finally, inadequate internet data services and subscription for accessing and retrieving the delivered information was discovered to be major factors militating against benefitting from mobile provision of SDI; this is in line with Ochogwu (2007) who highlighted factors affecting the free-flow, reception and delivery of library services and pointed out poor network connectivity as a major factor.

Discussion of Interview Findings

The responses gathered from the officers interviewed confirmed the existence of SDI in the university's library using electronic mailing systems deployed on mobile technology which they have been rendering to researchers based on specific requests. They also make efforts at creating awareness of the service to researchers by meeting with the Deans of various Schools. Efforts are also made to compile email addresses, phone numbers and areas of research interests of researchers for easy communication in case of need for deeper understanding on certain areas of research interests.

Interviewees confirmed to have provided SDI services to various researchers in several occasions in the course of their duty. They also narrated how the SDI operates presently in the library in similar terms stating that the search and retrieval of the current needed information via the various databases the school is subscribed to and other open sources where the need permits and occasionally print sources, are mailed to researchers and sometimes delivered as hard copies. Short Messaging Services (SMS) is also used to deliver information instead of the e-mail and also as a means of alerting a researcher on a delivery to his or her e-mail address.

Furthermore, they highlighted various challenges they do encounter in the course of providing SDI via mobile technology which are: lack of clear cut policies governing SDI provision, poor internet connectivity especially when requested information to be retrieved is large in size making it take too long to be downloaded and takes longer time to forward to the researchers.

The ratio of librarians to number researchers yearning to benefit from this service is also a serious challenge which results into enormous workload on the few available librarians.

The long bureaucratic processes taken to attend to reports requesting for funds to purchase or subscribe to retrieve certain vital information for researchers is another major challenge.

Finally, interviewees suggested that the development of a standard policy for the provision of SDI will go a long way in keeping the librarians on track. Also, the attachment of at least two librarians per school as specialists readily available for handling SDI services to the researchers within the given school.

Conclusion

This study concluded that the Ibrahim Badamasi Babangida library of Federal University of Technology Minna has a functional SDI service which makes use of researchers university's email addresses via mobile technology but with a poor rate of performance as only a handful of researchers have benefitted from this service. This further point out the fact that the service needs more publicity among researchers as the research findings made clear that most of them have little or no idea of the service as at time this study was conducted.

Recommendations

Based on the findings of this research work, it is recommended that:

1. The library should develop a means of regularly publicizing the existence of SDI service in the library by creating platforms for awareness among researchers through Deans and Heads of Departments especially during board meetings and other available medium where researchers come together in large numbers.

2. The number of librarians handling SDI should be duly increased to enable them cope with the workload challenges of the numerous researchers yearning to benefit from this service or alternatively, employ the use of an automated SDI system to reduce the general workload on the librarians. This also entails the library making available their own comprehensive database containing researchers email addresses and areas of research interests.
3. The library should enforce a policy for the provision of SDI via mobile technology and should be highly considered in the budget allocation of the library as a great number of researchers opined that the service will help improve their research productivity which is one of the library's major objectives.
4. A certain number of librarians should be allocated or attached to each school or if possible department for the handling of SDI service to researchers.

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