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Perception of librarians towards collaborative research in academic libraries in Nigerian Universities

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Perception of librarians towards collaborative research in academic libraries in Nigerian Universities.

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Introduction

Research is an integral part of any economic and national development, research can be done individually or in group. In recent time collaborative research has become popular, collaboration means sharing knowledge and ideas, working as a team to achieve a desired goal. Collaborative research is aimed at discovering new ideas as a group to enhance knowledge sharing and collaboration. The growth of research can be said to be in geometric progression, as new issues evolve scientist and researchers explore new ways to handle such issues and innovations in order to chart a way forward. Interdisciplinary collaborative research have been viewed by some authors as being productive and richer because it brings researchers from different field of knowledge to contribute their ideas to enable the research team view the problem holistically. Lind, Styhre and Aaboen (2003) highlighted that collaboration between industry and university provides a richer resource environment. In other words interdisciplinary collaborative research provides better and lasting strategy for solution of societal problems.

Collaboration is very important in research any disciplines today engage in collaborate research, the rate is more now than before, library and information science researchers are not left out. Mark cited in Harrasi and Jabur (2014) stated that through collaboration it becomes possible to address common issues much more effectively than when one works alone. Collaborative research is important for this field of knowledge especially as their services cuts across other disciplines. It becomes necessary that they should know a bit of other subject areas. Engaging in a collaborative research becomes important and necessary for them. Abramo et al

cited in Lind; Styhre and Aaboen (2013) showed that university researchers that collaborate with researchers in the private sector have superior research performance than their colleagues who do not collaborate. Research about librarians' activities on collaboration are few and it seems that many of them are not aware of it. Based on this fact this study was carried out to investigate the perception of collaborative research among academic librarians, with a view to highlight the benefits and motivation in order to enhance knowledge sharing among academics.

Objectives of the study:

- 1 Identify the rate of research collaboration among librarians in Nigerian Universities.
- 2 The benefits of research collaboration among librarians in Nigerian Universities.
- 3 The motivation towards research collaboration among librarians in academic libraries.
- 4 The challenges hindering research collaboration in research among academic librarians.
- 5 Strategies to improve research collaboration in research among academic librarians.

Literature Review

Research Collaboration among academic librarians

Academic library is an integral and indispensable part of any university establishment. In the words of Prytherch, (2000) academic libraries are "the libraries in an educational establishment at any level, i.e. universities, colleges, research associations," etc. Academic libraries are repositories of ideas that provide a durable true base upon which subsequent generations of scholars can build and create knowledge or technology that opens new possibilities of discovery. They guarantee the survival of knowledge beyond one generation by providing a shared collection that is difficult to destroy. This knowledge survival ensures that a culture is created and spares the society the cost and effort of recreating techniques and reinventing technology. Abubaka, (2011) in his own view aduced that academic libraries are the heart or nerve centers of institutions of higher learning where all academic activities revolves. This indicates the roles academic library plays for the institution in actualizing the objectives of the parent institution which is to improve teaching-learning and research. This shows that academic library is the centre of educational activities in the university. Peters, (1999) observes that academic libraries document and cater for advancement in educational and research

disciplines that are of great interest to an institution. The author further, concludes that academic libraries contribute by providing a locus for research, new ideas, lecture series and a host of exhibits and exhibitions.

Research then is a systematic investigation into and study of materials and sources in order to establish facts and reach new conclusions. According to Anyanwu, (2007) “research is the only source for generating and advancing the frontiers of knowledge, skills, training and expertise for man power, and therefore the most important factor which facilitates and accelerates economic development and improved standard of living in society”. Additionally, Leedy, cited in Aina (2002) defined research “as the manner in which we attempt to solve problems in a systematic effort to push back the frontiers of human ignorance or to confirm the validity of the solutions to problems others have presumably solved”. The objectives of academic libraries are to serve the needs of the academic community (staff and students); provide study areas for users; provide a lending service appropriate to different types of users; and provide an active information service (and this may extend beyond the institution to local industry and commerce). The accessibility of this information materials in the library is determined by the efforts of the academic librarians.

In this study, academic librarians are professionals, who are holders of first degree and above and are working in academic or a university library. An academic librarian supports members of the academic community, such as students, researchers and teaching staff by managing, organizing, evaluating and disseminating the information they need. Gregory and Medford (2006) maintained that academic librarians would also benefit a great deal from publishing because it allows them to maintain their faculty status, obtain promotions, and gives them the opportunity to add to the body of knowledge. Peters (1999) identified the roles of academic librarians as to manage and leverage the institutional resources, support educational and research activities, provide information and resources for staff and students and provide prompt access to needed information. The academic librarians in carrying out their own research activities need to collaborate either among themselves or with members of faculties, and with colleagues both nationally and internationally.

The importance of research cannot be looked down in university education. Research leads to generation of new knowledge, encourages innovations, enhances the quality of teaching,

increases an institution's reputation. However, Best and Kahn, (1998) which "research as the systematic and objective analysis and recording of controlled observations that may lead to the development of generalization, principles, theories resulting in prediction and ultimate control of many events that may be consequences or causes of specific activities". However, academic librarians cannot achieve this mission alone without research collaboration (RC) particularly now that the whole world is characterized by many new concept and technology. This means that in this era, works are shared among individuals or researchers in the same field. This depicts that division of labour or collaboration is encouraged for efficient and effective service delivery.

Roschelle and Teasley as in Dillenbourg et al., (1996). sees collaboration as "mutual engagement of participants in a coordinated effort to solve a problem together," .Continuing, Roschelle and Teasley as in Sitienei, (2011) defined collaboration as "coordinated, synchronous activity, that is the result of a continued attempt to construct and maintain a shared conception of a problem" They define the joint problem space as the shared knowledge structure that supports problem-solving by integrating goals, descriptions of the current problem state, and awareness of potential strategies, as well as the links between these things. Collaboration takes place within this joint problem space, which provides the structure needed to allow meaningful conversations about the problem. To construct a joint problem space, partners must have ways to introduce and accept knowledge, monitor exchanges for evidence of divergent meanings, and repair any divergences identified. Collaboration is one key term that has been emphasized in library and information science literature. So many terms are synonymous with Research collaboration (RC). Such terms include, Co-authorship, research partnership, research networking, joint research, participatory research etc.

Research collaboration is the "mutual engagement of participants in a coordinated effort to solve a problem together"(Lai 2011). In the words of Katz and Martins (1997) collaborative (or participatory) research can be defined as researchers coming together to achieve the common goal of producing new scientific knowledge. The focus in collaborative research is on empowering librarians to take charge of the research process, in library and information science education and this empowerment may be achieved via numerous methods that should be determined by the details and the rate of collaborative works of librarians in the field of librarianship. Verzosa, (2007) believes that it is very important for librarians to engage in

research as this adds value to librarianship. Truly collaborative research in library and information science involves respecting and understanding the participants and recognizing the knowledge and capabilities of librarians who can work among themselves to obtain analyses and solutions in librarianship. It should be viewed not only as something that should be done for ethical reasons, but also as a way to improve the quality of research among librarians in Nigeria.

Obviously many factors are responsible for the increase in collaborative research. These factors include the following: the desire of librarians to increase their scientific popularity, visibility, escalating demands for the rationalisation of scientific manpower; changing patterns or levels of funding; and increasing specialisation in different areas of scholarship (Heffner 1981, Smith 1958, Price 1963). Collaboration is needed for the advancement of scientific disciplines including librarianship and this indicates that librarians need more and more knowledge in order to make significant advances, a demand which often can only be met by pooling one's knowledge, resources or worth with others to achieve; the need to gain experience or to mentor younger librarians in the most effective way possible. In support of this view Melin(2000) advocated that the reasons to collaborate include: access to special equipment, special skills unique materials, visibility, recognition, time efficiency, labour efficiency, gaining experience, training researchers, sponsoring a protege, increase productivity, multiply proficiencies, avoid competition, surmount intellectual isolation, confirmation of a research problem, intellectual stimulation of cross pollination, spartial propinquity, accident or serendipity. Social motivations (less output-oriented) include enjoying stimulating experiences and working with old colleagues.

The purpose of collaborative research among librarians

The main purpose of considering a collaborative research is normally the perception that there is need and these needs must be attained. For example, individual libraries might need an integrated online system, a storage facility for little used library materials, to purchase an expensive microform set, an online database. Participants see the possibility of pooling resources together ie. both money, intellectual and technical know-how to make a purchase or develop a process with benefits to the user community. This means that the purpose of collaborative research is to improve performance in research output of librarians and for effective service delivery in univerversity libraries. Research collaboration therefore, could be seen as the working

together of researchers (librarians) to achieve a common goal of producing new scientific knowledge. Schultz-Jones (2009) explained that it is collaboration that will continue to be a prominent theme for advancing student learning and achievement, and Bruce, (2001) further concludes that such partnerships seem to be based on changing perspectives in education as well as in the area of librarianship. Glanzel (2003) study showed that among scientists a lot of collaboration existed within a department, research group or institution. The author lists Beaver's eighteen reasons why people tend to collaborate. They are as follows: access to skills and expertise, access to equipment, resources or 'stuff' one does not have, improved access to funds, to gain respect, admiration and recognition for professional advancement, efficiency, i.e. more hands and minds make it easier to learn the tacit knowledge that goes with the techniques. To allow more rapid progress, to tackle "bigger" problems, to increase productivity, to get to know people by creating networks i.e. like an "invisible college, to retool and learn new skills or techniques that enable one to break into a new field or subfield and solve problems. To satisfy intellectual interest and the desire to learn more and to share the excitement of being on the same page with others

Benefits of Collaborative Research among librarians

There are many benefits of collaborative research among librarians. Collaboration increases the probability that the knowledge, skills and techniques required will be available within the collaborators, and the time spent learning information or skills is minimized. This is particularly relevant given the increasing complex nature of research. Relatedly, transfer of knowledge and skills often occurs within collaborative research relationships, and is often a more effective way of learning than classroom instruction. A sharing of perspectives and ideas can foster creativity and expanded knowledge that would not occur during sole research perspective. Collaborative relationships may also provide researchers with unique opportunities to work with other researchers that they would otherwise not be exposed to, creating increased opportunities for joint publications that are extremely valuable and beneficial to research careers (Brann, et al 1992). A comprehensive review of collaborative research would be incomplete without the acknowledgement of existing costs of collaboration which is often very high. Most obviously, the financial cost, which is often associated with travel and shipping in collaborative relationships. As usually very high. Time costs are also an important consideration, particularly given the high time demands it often places on researchers. Additional time is often associated

with travel, the establishment of a collaborative relationship and the joint preparation of research material and results for dissemination (including agreement on research problem, design, and other logistics are also involved).

Generally, collaborative research encompasses more than traditional research does (ie., more meetings/communication, conferring with a larger number of individuals and organizations), and thus an increased cost, monetary or otherwise, is logically associated with this type of research (Freyvogel 1996). The level of research collaboration has been growing in recent past inspite of all odds. There has been a successive generations of technology in this century compared with 1960s and 1980s. In view of this, it has often become impossible for funding agencies to provide the adequate research facilities to all the research groups among librarians and other reseachers.

One of such reasons is the escalating costs of conducting fundamental scientific research at the research frontier. In many fields, scientific instrumentation costs have jumped in a geometric progression with the introduction of information and communication technology in the area of library and information science. Resources have had to be pooled, either at a regional, national and international level (Katz and Martin 1997). As a result of this, researchers involved including librarians have been forced to collaborate more closely because of logistics involved and to meet up with the trends of events in librarianship.

A third factor. encouraging greater collaboration according to (Katz and Martin 1997) also has been the substantial fall - in real terms - in the cost of travel and of communication, accompanied by growing availability and easy access. Air travel is many times cheaper in relative terms than in the 1950s (when a journey by sea and/or rail was often the only option) or even the '60s, and flights are now readily available between most major cities. Continuing they opined that, the falling cost and growing ease of communication, particularly with the introduction of smart phones, electronic mails, fax machines, to mention but a few has made collaboration between scientists, even when separated by great distances far from each other easier to collaborate with one another This has greatly impacted on research on librarianship as these development in communication has eased the cost and regours of collaboration between librarians. Furthermore, the above developments have often greatly reduced the time needed to travel or to communicate (or at least to receive a response) (Hall, 1988). Additionally, Follet,

(1992, Kulin, in Sylvan and Ben 1995) in two different works State that, scientists and others have shown that, science is a social institution where advances depend crucially on interactions with other scientists. In some fields, this may entail the creation of formal collaborations, of organised and sometimes quite large teams of researchers. For others, informal links may be all that are required, perhaps in the form of 'invisible colleges' or the 'networks' which have become so popular with certain funding agencies in the recent past.

The increasing need for specialisation within certain scientific fields, especially those where the instrumentation required is very complex (Goden 1980). This can be seen in its most extreme form in 'big science'. For instance, In the area of high-energy physics research in order to carry out an experiment, one needs to bring together experts in such tasks as (a) building accelerators or detectors, (b) writing the software for controlling the equipment and taking data, (c) setting up and running the accelerator during the experiment, (d) analysing the huge quantities of data produced, (e) relating the results to theory, (f) writing up and presenting the results; and (g) fund raising, liaising with the laboratory management, managing the collaboration, and other administrative responsibilities. No single individual can perform all these specialist tasks in high-energy physics (or at least do all of them well), and a team approach is essential with a fairly formal division of labour.

There is the growing importance of interdisciplinary fields. It is becoming clear that some of the most significant scientific advances come about as a result of the integration or 'fusion' of previously separate fields (Kodama, (1992). In the words of Martin and Irvine, (1989) New or emerging fields like biosensors, optoelectronics or chematronics (the fusion of chemistry, life sciences and electronics) promise results likely to form the basis of major new technologies. Since few individuals possess the necessary range of skills, the only option is to bring together scientist from relevant disciplines and to forge a collaboration between them. Linked to this is the recognition that advances in certain areas of basic research are crucial for the development of new generic technologies such as biotechnology and new materials. Such research often involves areas might reap interesting findings but would probably require the development of innovative evaluation procedures needed for such research. Collaboration not only cross disciplinary boundaries, but also between sectors - for example, between universities and industry, among librarians within the country, locally, nationally and globally.

Furthermore, there are various political factors encouraging greater levels of collaboration among researchers (librarians). Prominent among these has been the growing integration of Western Europe in the years up to 1992 and the increasing role played by the European Commission in supporting research (Moed, et al 1991).

Finally, just as collaboration between European scientists after the Second World War in organisations like CERN, the European Southern Observatory (ESO) and the European Molecular Biology Organisation (EMBO) was seen as one way of building stronger links between nations, so the recent political changes in Eastern Europe have resulted in calls for Western scientists to collaborate with their colleagues in the East to help bring about stronger political and cultural ties. This is also applicable to the area of librarianship in West Africa particularly as it concerns Federal university libraries.

Problems of research collaboration among academic librarians

There are miriads of problems hindering collaborative research among librarians. Such problems include: lack of fund, limited ICT infrastructural facilities, political and cultural problems, time factor; lack of strong collaborative climate.

Lack of Fund

The Nigerian National Policy on Education (2004) enjoined Governments at all levels to provide educational services to institutions of learning at all levels of educational systems. It went further to stress libraries as pillar of education and that libraries and librarians are among the most important educational services provider. In reality, the Federal University libraries are not living up to this. Most of the funds meant for library development are not released to them. This affects the libraries and hinder efforts by libraries and librarians in engaging in strong collaborative research. This is in line with Nwalo (2000) and Mutula (2004) assertions that libraries at all levels get very little funds from their parent institutions and the government support of their activities is not encouraging. In agreement to this view, Fisser (2001) asserts that privacy protection is not just a technical issue, it involves issues as eradicating and training of library staff and user on privacy and limiting access to personally identifiable information.

Therefore, government at all levels should provide funds for the enhancement of research collaboration and to train librarians for efficient and effective research collaboration. Secondly,

Nigeria has not actually had a well established system for funding LIS collaborative research like other developed countries of the world. Such as Japan, USA etc. Many countries tend to encourage research and development by developing national research strategies and by providing avenues for funding (Moah, 2008). This is very important in collaborative research because the presence of funding bodies determine the research strategy and focus of the research. Taking the British example for instance, Ashcroft and Mclvov (2000) explained that the library and information commission had influenced the direction and focus of LIS research in UK. The LIS research has not had this in Nigeria since the inception of Federal University Libraries in South-East Nigeria.

Limited ICT Infrastructural Facilities

ICT infrastructure is lacking in some of the federal university libraries in South-East Nigeria and thus hinders collaborative research. Such problems as slow network connectivity, low internet bandwidth, epileptic power supply etc abounds. Furthermore, most of the libraries have not fully digitized institutional repositories and some of their intellectual works as well as other library resources that would have been used for collaborative research activities. As a result of this, some of the collaborators find it difficult to source for materials for their collaborative research activities.

Political and Cultural Problems

In Nigeria, people feel insecure, particularly in urban and some rural areas, where the killings by armed robbers and Boko haram insurgents of innocent citizens and even policemen on duty occur on a daily basis. These unruly behaviours in the absence of adequate information may engender hatred, frustration and protest by the citizens against the government. Citizens very often take laws into their hands, because they believe that state can no longer guarantee their safety and embark on lot of criminal activities. This situation hinders the progress and continuity of collaborative research among librarians as Northerners can't move freely in the East and the Easterners cannot also move freely in the North.

Time Factor

Time cost is an important factor. Additional time is associated with travel, establishment of collaborative research and the joint preparation of research materials and results for dissemination (Including agreement on research problems, design etc) (Power and Kuhnlein, 2008). Furthermore, professionals seem not to have adequate time to be involved in collaborative research particularly as it relates to empirical studies. This is borne out by the number of empirical papers published. For example, librarians are faced with the growing number of students they would teach over a period of time and other information services rendered to library patrons on a time basis. Besides, there is also lack of staff to help academic librarians in discharge of these functions. This affects collaboration in research.

Lack of Strong Collaborative Climate:

It is observed that there is no real focus on collaborative research in federal university libraries in South-East, Nigeria. Many librarians seem to be doing their own research without involving others thereby undermining issues of the professionalism in librarianship in Nigeria. In Nigeria, collaboration among government, industry and academia is lacking as the government and the industries are not interested and not doing much to sponsor research. Therefore there is no good avenue for collaboration as most researchers fund their individual researches with their little income or fund attracted from outside the country. The research when not properly funded will not be elaborate enough and will not yield the desired result. This may not be very useful to other sectors like the industry and the government. However, in the recent years, the Universities have been talking about government, industry and academic collaboration with a view to producing goods and services from research (Moahi, 2008).

McNicol and Nankive (2002) identified a number of problems hindering LIS research in the UK, which in my own opinion, is also applicable to Nigeria situation and its collaborative research initiative as: Nature of LIS education; Lack of skills and knowledge for conducting research; Lack of research agenda that is directed to current problems; Lack of employer incentive and interest in research; Limited practitioners involved in research practice gap; Research that does not address issues that are problematic to the profession; Research is disseminated to journals that others cannot get access to; Students dissertations' are not disseminated adequately most of the time, and yet are empirical in nature.

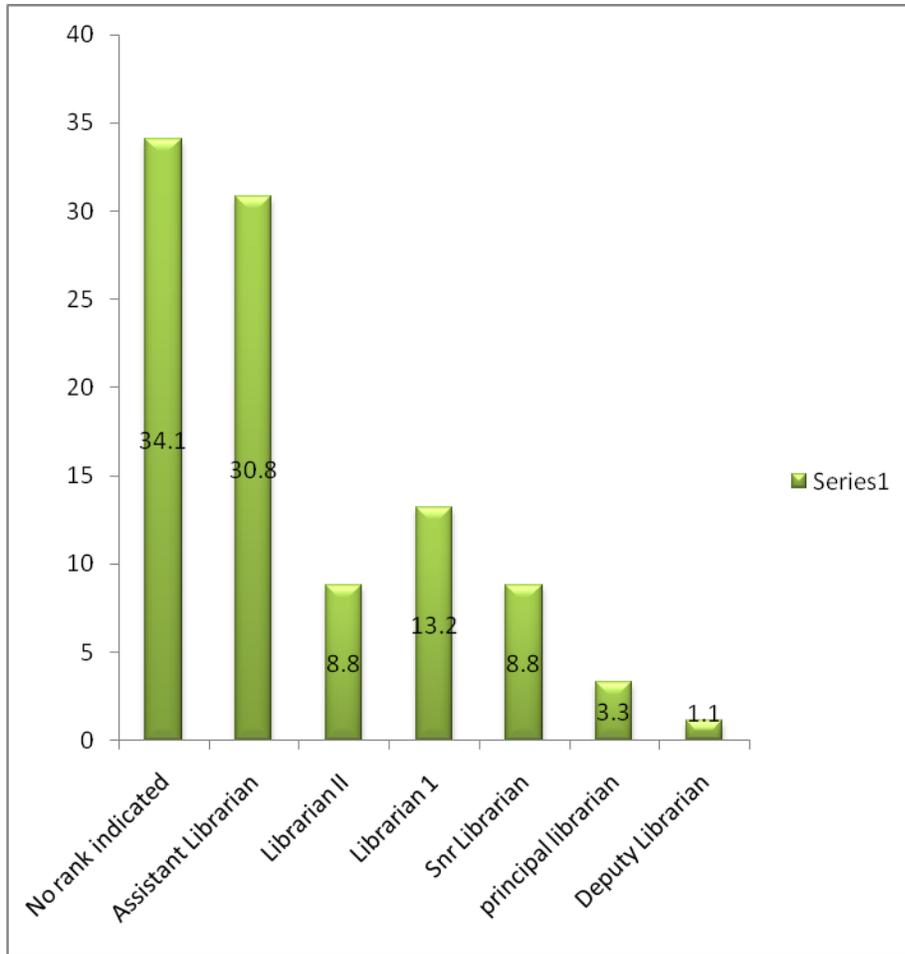
These and many more reasons hinder collaborative research initiatives in Federal University libraries in South-East Nigeria.

Methodology

The study adopted descriptive survey, the population of the study consist of librarians from south east Nigeria. In South east Nigeria, there are six federal and six states universities making a total of twelve universities studied. The instrument for data collection is questionnaire, the questionnaire has two sections A and B, sections A is on the biodata of the respondents while section B contains questions on the variables that were studied. The questionnaire was validated by two experts in the department of library and information science University of Nigeria, Nsukka. The corrections and suggestions made were effected in the instrument. The total population of librarians in southeast is 242 (Directory of Polytechnics and colleges in Nigeria, 2015). 50% of the population was studied which gives 121 librarians. The questionnaire was distributed by the researchers to the librarians in the universities under study and were filled and returned back after a period of two weeks. The data collected were analysed using percentages, and bar chat. Out of the 121 questionnaire distributed 91 (75%) was returned and used for the analysis.

Analysis of Data

Figure 1: Response rate based on rank



The breakdown showed that out of 91 respondents 34.1% did not indicate their rank, 30.8% are Assistant librarians, 8.8% are Librarian II, 13.2 % are librarian I, 8.8% are senior librarians 3.3% are principal librarians while 1.1% are deputy University Librarian

Table 1: Rate of collaboration

Yes	No
73%	18%

The response rate showed that out of the 91 respondents, 73% have been involved in collaborative research while 18% indicated they have not.

Table 2: Breakdown of Rate of collaboration based on Rank

			%
	No	yes	
No rank indicated	6	25	34
Assistant Librarian	7	21	29.0
Librarian II	1	7	9.5
Librarian I	1	11	15.0
Snr. Librarian	2	6	8.2
Principal librarian	1	2	3.0
Deputy Librarian	0	1	1.3
Total	18	73	

Further breakdown showed that out of the 73% that have done collaborative research, 25% did not indicate their rank, 29% are assistant librarians, 9.5% are Librarian II, 15% are librarian I, while senior librarian, principal librarian and deputy librarian are 8,2%, 3.0% and 1.3% respectively

Table 3: Motivation for collaboration

S/N	I was motivated to carry out collaborative research because	SA	A	D	SD
	Escalating cost of research	41.8%	36.3%	11.0%	11.0%
	Researchers have to be pulled	26.4%	45.1%	16.5%	12.1%
	For collaboration, links with networks	41.8%	47.3%	2.2%	8.8%
	Increased need for specialization within certain	41.8%	49.5%	1.1%	7.7%

	scientific fields				
	Team approach is essential with formal division of labor in research	40.7%	49.5%	3.3%	6.6%
	There is growing importance of interdisciplinary fields	38.5%	46.2%	8.8%	6.6%

The result showed that the ,major motivation to do collaborative research are there is increased need for specialization within certain scientific fields, team approach is essential with formal division of labor in research, for collaboration, links with networks and escalating cost of research networks.

Table 4: Benefits of Collaboration

S/N	Items	VHE	HE	LE	VLE
	To share skills, techniques and knowledge	78%	18.7%	3.3%	0%
	There will be division of labour	61.5%	30.8%	4.4%	3.3%
	It generates new insights or perspectives that individuals working on their own may not have	67%	25.3%	4.4%	3.3%
	It saves time and cost due to sharing of the resources	65.9%	24.2%	4.4%	5.5%
	It encourages all the participants to make their contributions	68.1%	25.3%	3.3%	3.3%
	It allows brain storming and team work among the participants	68.1%	26.4%	2.2%	3.3%
	It provides intellectual companionship and relationship	64.8%	29.7%	2.2%	3.3%
	It can enhance the potential visibility of the work	50.5%	42.9%	2.2%	4.4%
	Due to collaboration research can be carried out more effectively	59.3%	36.3%	1.1%	3.3%
	Collaborative research has helped to increase the number of publications I have	47.3%	29.7%	11.0%	11.0%

The benefits of collaborative research as shown in table 3 are; to share skills, techniques and knowledge, It allows brain storming and team work among the participants, Due to collaboration research can be carried out more effectively and It encourages all the participants to make their contributions

Table 5: Factors hindering collaborative research

S/N	The following problems hinders collaborative research	SA	A	DA	SDA
	Afraid of non-contributions by others	41.8%	31.9%	17.6	8.8
	Struggle over ranking of authorship	36.3	30.8	25.3	7.7
	Issue of access to connectivity and internet access	22.0	44.0	25.3	8.8
	Lack of awareness on the benefits of collaborative research	24.2	44.0	25.3	6.6
	Too much time to be spent in planning and keeping the collaborators fully informed	26.4	44.0	22.0	7.7
	Difference of opinion is almost inevitable and will take time to resolve this amicably	27.5	42.9	22.0	7.7
	The difficulty in sharing the topics to be covered among the collaborators	20.9	37.4	34.1	7.7
	Difficulty in working with colleagues in research as many of them may not contribute anything	34.1	40.7	19.8	5.5
	Lack of collaborative research funding	40.7	38.5	8.8	12.1

In table 6 putting the positive response together it was discovered that lack of collaborative research funding 79.2%, Difficulty in working with colleagues in research 74.8% and Afraid of non-contributions by others 73.7% are some of the challenges hindering research collaborations among academic librarians.

Table 6: Strategies for improving collaborative research

S/N	Strategies for improving collaborative research are	SA	A	DA	SDA
	Agreement on the contributions of each author	53.8	36.3	3.3	6.6
	Agreement on the ranking of authorship	51.6	36.3	6.6	5.5
	Availability of internet facilities	52.7	34.1	5.5	7.7
	Creating awareness on the importance of collaborative research	42.9	46.2	5.5	5.5
	To spend less time in meetings and planning	29.7	52.7	11.0	6.6
	In collaborative research people should chose areas that they	46.2	46.2	2.2	5.5

	are familiar with				
	Sharing the topics that make particular research is the best way to ensure that all researchers participate	45.1	44.0	1.1	9.9
	Provision of fund by the government for collaborative research.	56.0	29.7	7.7	6.6

The respondents identified Agreement on the contributions of each author, In collaborative research people should chose areas that they are familiar with, Availability of internet facilities and sharing the topics that make particular research is the best way to ensure that all researchers participate as some of the strategies to improve research collaboration among academic librarians.

Discussion of findings

Research collaboration is the best practices in any scientific research nowadays because the ideas of different researcher are brought together into the intended research. Considering the rate of collaboration among librarians in south-east Nigeria, the finding indicates that 73% of them are involved in collaborative writing. This shows librarians are involved in collaborative research, this may be due to the fact that it is easy to write a paper with a group of people. This will make the paper come out in good time because there is division of labour, brainstorming and suggestions that will make the paper publishable. In considering the different ranks, assistant librarians have the highest collaboration of 29%. This may be due to the fact that they are new to the profession, they may not have carried out any research and therefore need to learn from senior colleagues on how to carryout research due to the fact that research is a process a systematic way of making enquiry.

Motivation towards collaboration among librarians

Man is a social being, it is the interaction between the group that motivate them to work for collaboration. However, what motivated librarians, the researchers studied, for collaborative research is the increase need for specialization with certain scientific fields, this followed by links with networks and escalation cost of research. This means that research is now not a personal thing and it involves more scientific and systematic investigation. Therefore it requires

other people to motivate each other, play a role which is special to the person and provide ideas which others may not have and above all encourage each other to carry the work to a logical end. Unlike if it is a personal research, the study may be abandoned because of challenges like fund, some specialty in the area that is not known to the researchers or lack of encouragement.

Benefits of collaboration research

In terms of benefits of collaboration the librarians indicated that in very high extent, it has helped them to share skills, techniques and knowledge, has encouraged all the participants to make their contributions and allows brainstorming and team work among the participants, both with 68.1% response. This is in line with Brann (1992) who expressed that collaborative research will provide researchers with a unique opportunity to work with others and help expose them to things that they are not aware of. In other words collaborating in research with other librarians will expose one to an area in which the people are not conversant with. In Librarianship there are different areas and no one knows it all, but in brainstorming one is exposed to a lot of things and areas he is not familiar with.

Factors hindering collaborative research

Though collaborative research has benefits it also has challenges the one most identified by the respondents is non- contribution by some members of the research group and collaborative research funding. This is obtainable where a group is not selected, it is better to form a group that is made up of hardworking people and have vision on what they want to achieve. It should also have a written policy and division of labour and deadline when to submit, the assignment given to each person. When there is a written policy signed by each individual in the group, it leads to meeting the date agreed on.

Conclusion and Recommendation

The study showcased the views of librarians towards collaborative research. It has shown that librarians are involved in more collaborative research probably due to the nature of their job. The study also reviewed that there is an increase need for specialization and escalating cost of research, therefore they need for more collaborative research. However some are afraid of non-

contribution of ideas by some members in the group. When this happens it effect the through purpose of collaborative research.

The following recommendations were made base on the findings of the study;

- 1 A written agreement among the group stating the participation and contribution of each member of the group.
- 2 Dividing the work into different sections and assigning each member of the research group an aspect of the work to work on within the time frame.
- 3 Writing for proposals to secure funding for research that are cost intensive for the group.
- 4 Encouraging and educating each member of the research group through teaching directing and correcting them to ensure they are carried along with the skills in research writing. Having cordial interactions

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