Impact of Networking on Resources Sharing in Rivers State University, Port Harcourt, Nigeria

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ABSTRACT

The study examined the impact of networking on library resources sharing in Rivers State University. The purpose was to identify the types/impact of networking apps used, the extent of use, perceived impacts, and problems associated with the impact of networking apps on resources sharing. The study adopted a descriptive survey design. The population consisted of 50 librarians (both practicing & teaching staff) in Rivers State University. Structured questionnaire was used as the instrument for primary data collection. Data collected was analysed using descriptive statistics of arithmetic mean and standard deviation. The paper was anchored on network theory. The study identified Email App, WhatsApp, Facebook App, Instagram App, Zoom App, and Tweeter App as the types of networking apps that impact on resources sharing in Rivers State University Library. However, LinkedIn App and Skype App are of less impact on resources sharing in Rivers State University Library. The study also revealed that email apps, WhatsApp, Facebook app, Instagram app and Tweeter app were used frequently due to their sustained impact on resources sharing, indicating that networking impacts positively on resources sharing in libraries. Conclusively, it is obvious from the study that: Networking is an indispensable tool for resources sharing in libraries; networking and resources sharing are major library cultural orientations that lead to knowledge expansion among students and professionals; technology is here to make networking and resources sharing exercises easier and convenient in libraries. The study therefore recommends that: Rivers State University library must shift gears to "digital networking and resources sharing in library prospects and programmes in the university," to justify her existence in the changing information sharing environment. Also, the university librarians should develop the culture, the enthusiasm and the willingness to collaborate and share their knowledge with their colleagues through networking applications for efficient services delivery to end users.

Keywords: Networking, Networking Apps, Resources Sharing, Library, University Librarian

INTRODUCTION

Over the years, knowledge has been an indispensable asset used to expand the economy of a nation. It has taken a central stage as the most acceptable stimulant of growth and development, and also the driving force behind every successful achievement in the lives of individuals and organizations. There is a popular saying that "No man is absolutely an island in the world of knowledge", this popular statement however revealed the important nature of resources sharing of which many scholars believed its one major attitude that leads to knowledge expansion among individuals and professionals in an organization (Ahmed et al., 2021). To this end, since knowledge may seem to be ideas, experiences recorded or inherent in the mind of an individual, man immensely depends on one another in the learning and teaching, formulating of ideas and

contributing to knowledge creation.

Resources sharing is a process by which an individual knowledge is converted or translated into a form that can be understood and used by other individuals. In this regard, knowledge of personalities is transformed into a comprehensible way and used for the improvement of others in an organization (Islam & Tsuji, 2016). As indicated by Akparobore (2015), it is a mutual exchange of skills, experiences, and understanding to jointly create new knowledge. This however implies that a new knowledge is created when people interact and exchange ideas either physically or electronically. In a nutshell, resources sharing is the process of exchanging knowledge and getting new knowledge by both parties for knowledge improvement and expansion through a common link or a network.

Networking emanated from the word "network" to mean an interconnected group or system for the purpose of resource sharing (Onwuchekwa, 2015). The networking and resources sharing has always been an important prime factor among knowledge organisations. For people to interact there must be an interface or a link between two or more persons and this interface or link is the network. Networking is the informal social exchange of information and ideas among people who share a shared profession or special interest, it usually starts with a single point of agreement. Networking helps to establish a link where people meet and interact. Professionals utilize networking to broaden their circles of contacts, learn about career prospects in their areas, and gain a better understanding of current events and trends in their fields or the greater world (Kegan, 2021). Today, it is better done through the use of digital channels called networking apps.

An App is an abbreviated form of "application". It is a software program designed to perform a specific function. In this technological era, various networking apps have been invented and adopted by librarians to interact and leverage the available knowledge that may help to carry out their tasks more effectively (Islam et al., 2014). Networking apps are the application software designed for mutual exchange of resources, views, ideas and communication between two or more persons. The use of networking apps brought new openings for resources sharing and has played a very significant role in facilitating effective networking and decisions making (Kim & Abbas, 2010). The primary goal of sharing knowledge using apps is for quick responses and contributions among participants.

More so, any interaction that took place is stored automatically on the app and can be retrieved for later use. There are lots of apps invented for this purpose, the most popular among others include Zoom app, LinkedIn, Facebook messenger, Yahoo messenger, Whatsapp, Instagram, Emails, Tweeter, Skype, etc. Librarians can use these various applications to transfer their knowledge in the form of knowledge-based services and products to end-users. In the words of Agarwal and Islam (2014), Wiki as a networking tool can be read and edited simultaneously, helping to facilitate and improve collaboration amongst librarians, between librarians and patrons, and even across libraries. Hence, it is important to investigate the impact of networking on resources sharing among librarians in Rivers State University.

Statement of the problem

Librarians as knowledge professionals are indispensable in harnessing existing knowledge resource and disseminating them to the end-users. Due to the paradigm shift from analogue to virtual information services, librarians are faced with the task of having to develop themselves virtually to meet the ever-changing needs of the knowledge-based society. Librarians are expected to network and share common ideas on how to keep pace with the constantly changing user needs and information environment. As indicated by Boateng et al. (2017), sharing ideas enables librarians to tackle issues, adapt new things and advance understanding to achieve results. Awodoyin et al. (2016) reported an observation that most knowledgeable librarians in academic institutions often transfer, disengage or retire from service without sharing their knowledge to others, thus leaving their positions in the hands of the amateurs.

However, for librarians to interact and leverage the available knowledge that may help to carry out their tasks more effectively in this technological era, various networking apps are expected to be used. Though there are other channels in which knowledge can be shared, but the use of networking apps will help to eradicate the problem of distance and physical participations among librarians. Librarians can also participate virtually in workshops, seminars, conferences using networking applications like Zoom network, WhatsApp, Facebook livestreaming and others. Use of networking apps facilitates effective interactions and quick responses among participants as well as standardising the mode of operations and services delivery, and many other impacts (Ogunmodede & Popoola, 2019). However, despite the numerous impacts, observation has shown a poor resources sharing attitude using social networking apps among academic librarians which may be attributed to lack of awareness, skill, interest and willingness to share ideas technologically. Hence, the study seeks to investigate the impact of networking on resources sharing in Rivers State University.

Objectives of the study

1. To identify the types of networking apps that impact on resources sharing among librarians in Rivers State University.
2. To show the extent of usage of networking apps impact on resources sharing among librarians in Rivers State University.
3. To determine the perceived impacts of networking app on resources sharing among librarians in Rivers State University.
4. To identify the problems militating against networking apps on resources sharing among librarians in Rivers State University

Research Questions

1. What types of networking apps impact on resources sharing among librarians in Rivers State University?
2. To what extent do the various networking apps impact on resources sharing among librarians in Rivers State University?
3. What are the perceived impacts of networking app on resources sharing among librarians in Rivers State University?
4. What problems militate against the impact of networking apps on resources sharing among librarians in Rivers State University?

LITERATURE REVIEW

Theoretical Foundation (Network Theory)

The network theory approach spans a broad range of disciplines, including sociology, social psychology, mathematics, political science, communication, anthropology, economics, and epidemiology. According to Burt (1987), network theory involves the study of the way elements in a network interact. It is a simple way of understanding a network is by assuming that a set of objects are connected by some sort of link.

There is no single formal statement of the network perspective in the literature. Yet, there are certain core ideas that all or most network scholars would likely endorse. Wasserman and Faust (1994) have identified five fundamental principles that provide some underlying intellectual unity to the network approach.

First, behaviour of people is best predicted by examining not their drives, attitudes, or demographic characteristics, but rather the web of relationships in which they are embedded. That web of relationships

presents opportunities and imposes constraints on people's behavior. If two people behave in a similar fashion, it is likely because they are situated in comparable locations in their social networks, rather than because they both belong to the same category (both are White women) ((Yan & Ding, 2012).

Second, the focus of analysis should be the relationships between units, rather than the units themselves or their intrinsic characteristics. It is for sure that nothing can be totally understood in isolation or in a segmented fashion.

Third, analytic methods must not hinge on the conventional assumption of independence. A population or sample is defined relationally rather than categorically. Therefore, interdependence among units is thought to be assumed.

Fourth, understanding a social system requires more than only aggregating the realities. The flow of information and resources between two people depends not only on their relationship to each other but also their relationships to everybody else. For example, it matters whether two people who communicate with one another are embedded within a cluster of individuals who also talk to one another, versus embedded within two separate clusters that otherwise do not communicate in reality (Burt, 1999).

Fifth, groups sometimes have fuzzy rather than firm boundaries. The building blocks of organizations are not discrete groups but rather overlapping networks. Individuals generally have cross-cutting relationships to a multitude of groups. Applying these five principles to small groups, a network study focuses on relationships between components in the group system—individual-to-individual ties within a group, individual-to-group ties, or group-to-environment ties—rather than on features of these component (Valente & Saba, 1998).

Participating in a network benefits members by providing opportunities for the sharing of various kinds of resources. Several recent studies of network effects on firms have shown that these resources may include financial (Andersson & Persson, 1993), institutional (Bodlaj & Batagelj, 2014), knowledge and information resources, as well as a host of other resources in the network (Yan & Ding, 2012). On the one hand, the structured opportunity for resource sharing may benefit members by improving their financial performance (Valente & Saba, 1998), increasing their survival chances and enhancing their innovative learning capability (Andersson & Persson, 1993). On the other hand, membership in a network in and of itself may limit members from discovering opportunities and information outside the network and may limit the local adaptability of the firms (Burt, 1999).

A basic principle of network theory is that behavior can best be understood socially; every social unit stands at the nexus of a multitude of constraining and enabling alignments. Structural network dynamics include, but are not limited to, density, diversity, clustering, equivalence, and centrality of the network. These structural configurations combined with the strength and multiplexity of specific network linkages strongly influence social identities, values, attitudes, experiences, and behaviour (Yan & Ding, 2012).

Using network-theoretic models, network analysts are able to identify specific types of structures that are highly effective in predicting ingroup and intergroup attitudes and behaviours above and beyond individual-level characteristics (Kim & Barnett, 2008). Structural dynamics can further amplify intergroup principles through exploring the degree to which ingroup boundaries are loosely or tightly connected and the types and nature of linkages and communication exchanges within and between groups. For example, network theory suggests that the greater ingroup overlap across social contexts, the more likely group members perceive higher status for that particular ingroup than for other social categories to which they belong (Kong et al., 2019). It is also more likely the boundary between groups will be linguistically marked. In organizations, intergroup conflict and the capacity for successful adaptation and intergroup cooperation are strongly related to the extent and the alignment of intergroup "weak" ties across traditional communication channels and

online. Identifying network structures can help explain a large set of multilevel intergroup outcomes such as linguistic accommodation and stereotyping, group level conflict, organizational productivity and innovation, political attitudes, and community resilience (Brughmans 2013).

Knowledge and information resources of a network refer to the collective knowledge owned by all firms within the network. The network connections can be a mediator for disseminating both existing and newly acquired knowledge so that all members can quickly access it. In a study of diffusion of Total Quality Management (TQM) practices, Yan and Ding (2012) found that library networks were an important medium for the transmission and diffusion of TQM practices among librarians. As a result of such diffusion networks, the learning/innovative capability of the members was increased. Yan and Chien (2021) also, found that hotel chain networks facilitate knowledge transfer and learning among members and increase the survival chances of the members. Similar effects have also been reported in supplier networks of automobile companies such as Toyota (Valente, 1995).

In library's vertical network, common identity and strongly interconnected ties between librarians and the university management as well as among student/end-users themselves facilitate knowledge sharing and learning providing its members learning and productivity advantages over non-members.

Key Concepts Reviewed

In this section, the conceptual review of the related literature is with respect to networking and resources sharing:

Networking

The term "networking" or network is used in different contexts. Information network has become very popular and is used frequently by information specialists.

Seetharama (1997) defined library networks as a concept that includes the development of co-operative systems of libraries on geographical, subject, or other lines, each with some kind of center that not only co-ordinates the internal activities of the system but also serves as the system's outlet to and inlet from, the centers of other systems.

Zhu and Liu (2020) posit that a network is defined by the National Commission on Libraries and Information Science (NCLIS), USA as "two or more libraries and/or other organizations engaged in a common pattern of information exchange, through communications, for some functional purpose".

Zingg et al. (2020) define network as a formal organization among libraries for co-operation and sharing of resources, in which the group as a whole is organized into subgroups with the exception that most of the needs of a library will be satisfied within the subgroups of which it is a member.

In short, a network has been used to mean a formal organization of group of libraries and information centers following some common pattern or design for information exchange and communication with a view to improve efficiency (Kong et al., 2019).

Durgadevi and Usha (1998), submit that there are two types of networks, namely **computer network and communication network.** Computer network is concerned with the sharing of the computer load, software, and hardware and computer time. Communication network is mainly concerned with data transmission. These networks can carry large amounts of data over long distances. While planning a network, the costs of installation and access should be considered.

The Local Area Network (LAN) refers to linking workstations within a single building, whereas a Wide

Area Network (WAN) links workstations together which may or may not be in close proximity. New and value-added services such as voice mail, electronic mail, video text, telephone services, etc. contribute more for the optimum utilization of the network (Muthu, 2013).

Internet is a very good example of a network which facilitates selection and procurement of information materials, document delivery and access electronic journals and specialized materials (Xu & Kajikawa, 2018).

Muthu (2013) has expressed that the success and survival of library and Information Centers will depend on how much and what extent libraries cooperate with each other in future.

The increasing costs of information source materials, increasing cost of processing documents and their information contents, decreasing budgets and wide use of micro and minicomputers have contributed to the development of networks.

Chaudhry (1996) has highlighted the importance and usefulness of networks and networking as "network information resources, as extensions of library collections and as bibliographic and communications utilities with their unprecedented connectivity, speed of transmission and worldwide breadth have created excellent opportunities for libraries. Networks provide navigational tools and associated services which can be used by libraries to access remote resources for browsing, searching and even downloading. They are redefining the concept of collection and collection development and transforming the selection, preservation, communication and liaison functions in libraries, creating a powerful new contest for the theory and practice of collection management and requiring librarians to develop new skills, accept new responsibilities and change their ways of performing various library operations.

The principal motives behind networking are maximizing the utilization of existing information resources by sharing and providing speedy access to information resources located at different places through communication channels (Xu & Kajikawa, 2018).

Networks serve the larger interest of a number of organizations and citizens by providing access to resources on a co-operative basis.

Resources Sharing

A study by Muthu (2013) defines resource sharing is nothing but sharing of library resources by certain participating libraries among themselves on the basis of the principle of co-operation. This is applicable in sharing of documents, manpower, services, space and equipment.

Muthu (2013) defined resource sharing as the activities that result from an agreement, formal or informal, among a group of libraries (usually a consortium or network) to share collections, data, facilities, personnel, etc., for the benefit of their users and to reduce the expense of collection development. He also viewed it as **"** A mode of operation whereby the functions are shared in common by a number of libraries".

The model that is used for networking as well as resource sharing is being developed in stages. At first stage, the model of resource sharing includes the following:

1. Inter-linking between National & International Institute/University and Organization in the field of Environmental
2. One of the national level institutes is taking initiative (IEG) to act as a hub (a central node) for coordinating all networking
3. Central node is supposed to get information from the national level institutions as well as international institutes in the field of environmental studies.

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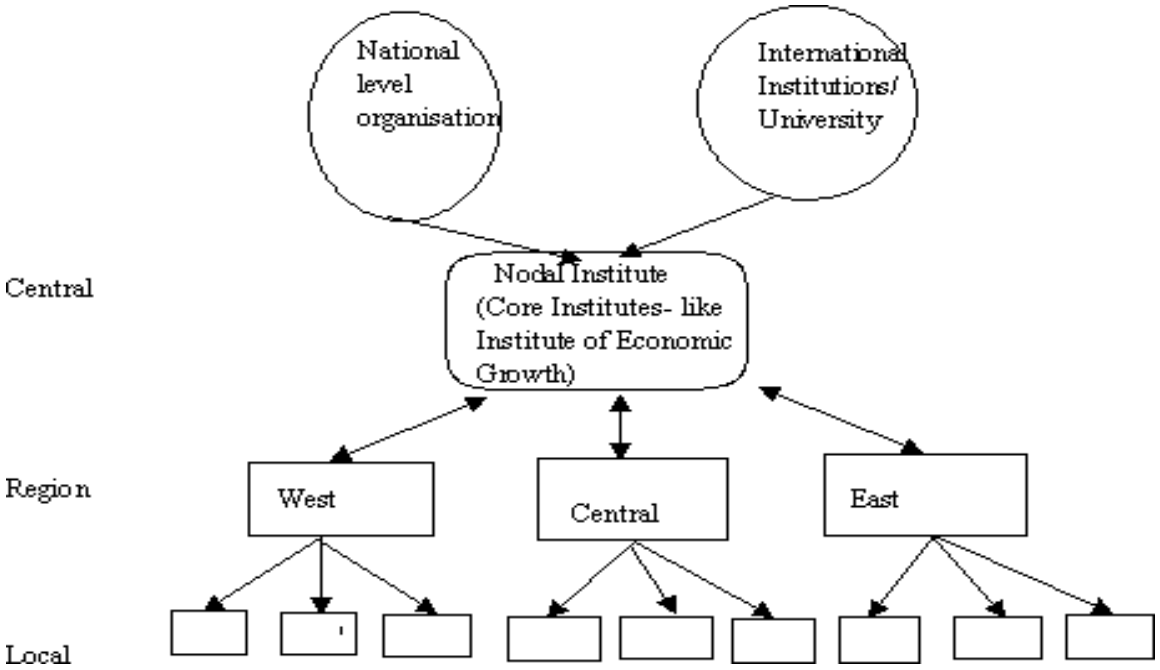
In second stage, the central node accumulates the information from all participating libraries of national and international level and to be disseminated to regional level members. To make this process of information dissemination more effective and useful, a two-way communication should be encouraged. At the final stage, after the networking among international, national, regional libraries, situated at regional level information would be disseminate to the local level members. This model of networking is shown in figure 1.

Figure 1: Model of library networking.



Source**:** Kim and Barnett (2008).

In this model, networking is at the first stage of its operation. To make this network successful there is a need to develop physical and human resources. The nodal library shall take initiative for installing an integrated CD-ROM network system (e.g. Central Library of IIT Madras). Scanners shall also be made available. The human resource shall also be trained to use latest information technology. All the participant institutes in the network would be motivated and encouraged to provide efficient services to the users.

Kim and Barnett (2008) further identified the features of the model to include:

1. Information generated and created anywhere in the world is disseminated speedily at all
2. There is no concept of membership Participating institutes and will arrange their budget from different sources.
3. Universities libraries are fully equipped with computers and other related equipment for giving document delivery
4. Each institute is
5. To make this networking efficient, skilled and experienced human resource is being deployed. The attitude of such people is of critical importance.
6. Use of electronic form of publication for sharing resources
7. At a later stage, duplication of costly and highly used Journals may be avoided by some mutual agreement and the same can be shared through the network.

8. This network is decentralized form of acquisition and storage in building the shared This would be technically valuable and economical also. This model focuses on specific subject; to begin with it is keeping the size of the resources to be shared as small as possible and within manageable limits. It will be economically viable also.

In the next phase, nodal library can also think about the digital libraries. Information may reside on different storage media such as electronics memory or magnetic and optical disk. In order to access digital information, it is necessary to use either special purpose, multimedia reader stations or some form of computer system ((Yan & Ding, 2012). The information can also be accessed remotely via telephone modems or by means of computer communication networks. This information can be shared at a very low cost. Therefore, while a conventional library might hold one or two copies of a book, a digital library could generate an unlimited number of copies at the touch of a button (Chopra, 1999).

The advantages of resources sharing in libraries identified by Muthu (2013) include:

1. Resource sharing satisfies the fourth law of library science
2. Resource sharing is very economical & Resource helps to save the library space
3. Standardization in classification and cataloguing is possible
4. Resource sharing avoids duplication of documents and work
5. Acquire library materials & Share holdings
6. Provide researchers with an increased number of research materials;
7. Avoid duplicate purchases & Ensure collection of special material and services
8. Establish efficient communication systems
9. Develop an information marketing mechanism through cooperation and control of the quality of collections

EMPIRICAL REVIEW

Kraft et al. (1991) described three library use cases for the application of graph theory: analyzing information structures (the public card catalog), scheduling library operations, and modeling library networks (as described in the previous section). They do not provide—at least not explicitly—a classification for different types of networks.

Newman (2003) loosely classified real-world networks as “social networks,” “information networks,” “technological networks,” and “biological networks.” It is generally reasonable that we can find all of these network types in the library domain, except biological networks, certainly. A social network consists of a set of social entities (people or groups of people) along with relationships, for example, patterns of contact or interaction, among them (Wasserman and Faust, 1994). Information networks, on the contrary, represent the structure of informational units, for example, scientific articles or web sites. Technological networks are usually artificially created to distribute some resource such as electricity or used as transportation routes, for example, airways.

Powell et al. (2011) give a good idea of graph use cases in libraries by distinguishing two main perspectives: informational graphs intrinsic to digital library systems and graphs as tools. They subsume three kinds of networks under the first perspective and already characterize their properties: citation networks (usually scale-free), collaboration networks (typically small-world networks), and expertise graphs, which are further split into subject–author graphs, institution–topic, and nation–topic graphs. According to Powell et al., graphs as tools can be used to identify collaboration opportunities, for author name disambiguation, to aggregate related materials, for bibliometrics, as temporal–topic graphs for analyzing the evolution of knowledge over time, for title or citation deduplication, as genomic–document and protein–document networks, for viral concept detection (e.g. usage of new keywords in the library), or as graphs of omission

that allow for detecting cross-disciplinary collaboration or generating machine-supplied suggestions. Suitable node and edge definitions as well as network metrics for some of these graphs are depicted in another publication by Powell and Hopkins (2015).

Yan and Ding (2012) explored the similarity between six types of what they call "scholarly networks," that is, bibliographic coupling, citation and co-citation networks (belonging to our group of "citation networks"), co-authorship networks (our "collaboration networks"), and topical and co-word networks (our "content networks"). They use a three-dimensional framework that covers network types (e.g. citation or co-word networks), approaches (i.e. type of network metrics applied), and aggregation levels (e.g. paper, journal, or institutional level). In the same paper, Yan and Ding then present different perspectives on scholarly network types that include "social networks" and "information networks" with different classes of edge types (citation-based, collaboration-based, word-based) that can stand for "real" or "artificial connections." This framework thus integrates Newman's as well as Powell et al.'s classifications with a focus on the type of relationship ("real" or artificial).

Yan and Ding (2012) express the demand for hybrid and heterogeneous networks that combine aspects of different approaches to successfully describe and use (scholarly) networks. To account for this, our approach enhances previous frameworks by not already including the network types but instead aspiring to deduce these from the facets that we apply.

In a follow-up publication, Yan and Ding (2014) expand their framework by including six key applications (evaluating research impact, studying scientific collaboration, studying disciplinarity and interdisciplinarity, identifying research expertise and research topics, producing science maps, finding knowledge paths) and by specifying approaches on the macro, meso, and micro level (e.g. degree distribution, community detection, and centrality measures). Besides, they now differentiate between "real connection-based vs similarity-based networks," replacing "artificial connections" with "similarity-based ones," which we think is a too narrow understanding of the possible types of connections.

Finally, Kong et al. (2019) gave a comprehensive overview from the perspective of Scholarly Big Data (SBD) and Social Networks, focussing on ASNs. They reviewed modeling, analysis, mining, and applications of ASN. Apart from describing network types, approaches, and applications, they also included "key mining techniques" in their "framework of academic social network survey," which encompasses similarity measures and statistics, among others. However, by adhering to ASN, their framework is not fully compliant with our goal of presenting a framework for data in the library context that go beyond academic (social) relationships. Nevertheless, Kong et al. make explicit some suitable concepts such as dynamic, homogeneous, and heterogeneous networks that were not considered in previous frameworks.

The study would like to point out that none of the available frameworks incorporates what is described as "Metadata Record Networks" in the literature review. The paper believes that this area of research shows especially great promise for the application of graph theory in the library domain since it concerns the creation and handling of metadata records themselves—an issue that has always been the central sphere of competence in libraries. In addition, we see the need for a suitable framework to include also those use cases that were already mentioned in early research studies, for example, library networks (Kraft et al., 1991), but not further investigated since.

Networking Apps and Resources Sharing

In the knowledge-based society, knowledge is a critical resource that provides a sustainable competitive advantage over others. It is intelligence, ideas or experiences recorded or inherent in the memory of an individual that others may not have. According to Awodoyin et al. (2016), an individual Knowledge can either be explicit or tacit in the manner such knowledge was shared. The explicit knowledge refers to

knowledge, which is easily expressed by words or documents, easily codified and articulated in language, and can be packaged, transferred and shared among individuals. While tacit knowledge is an informal personal knowledge embedded in the mind and uniquely rooted in individual experience, beliefs, values and often times not easily learn or fully expressed because it was obtained is obtained.

This type of knowledge can only be shared by close interaction between people or by observations (Awodoyin et al., 2016). Organizations like libraries must consider how to harness and transfer both the explicit and tacit knowledge from experts who have it to novices who need to know (Islam et al, 2014). Thus, resulting to what is known as resources sharing among librarians in order to leverage and utilise available knowledge for services delivery.

Resources sharing has been described from a variety of concepts. Ahmed et al. (2021) disputed that "sharing is a common activity for everyone, but resources sharing within an organization is a multifarious and complicated issue. According to Ford and Staples (2010), resources sharing is a process by which an individual or groups offer insight to an existing knowledge or comprehension either in an unsaid or express arrangement to a beneficiary. In the words of Cyr and Choo (2010), it includes exercises of spreading information starting with one individual then onto the next, to a gathering of individuals, or to the entire association. As indicated by Akparobore (2015), resources sharing is the process of coordinating learning activities where individuals bring knowledge and get new knowledge so that those with limited knowledge can benefit from the advantage of resources sharing. Thus, it is the processes where individuals, mutually exchange their knowledge and jointly create new knowledge. However, resources sharing among librarians is perceived as one of the most convenient and effective way to obtain knowledge. It enhances the ability to seek studies-related help from one another. Resources sharing among staff essentially facilitates achieving outcomes of collective learning (Akparobore, 2015).

However, ways in which knowledge can be shared among professionals was categorised into four by Ogunmodede and Popoola (2019), they include: socialisation, externalisation, combination and internalisation. Parirokh (2008) states that although tacit knowledge is not measurable but can be understood and can create new tacit knowledge through social interaction in a professional discussion group, chat rooms, tea rooms, and round tables discussions where stakeholders meet to discover answers to problems, as well as brainstorming sessions for analyzing library issues.

Networking on the other hand has a significant relationship with resources sharing, though used interchangeably by most scholars. The word networking emanated from network. A network consists of two or more computers or persons that are linked in order to share resources, exchange files or communicate. In as much as resources sharing deal with exchange of ideas, experiences and others, networking ensures that there a link or a connection to enable people interact freely. Networking, according to Kegan (2021), is the informal social interchange of information and ideas among people with a common profession or special interest. He added that it often begins with a single point of common ground. According to Onwuchekwa (2015), the advent of modern information technology has made the task of networking and resources sharing very simple and convenient. In the process of resources sharing, technology is needed for processing, storing and retrieval of information within the knowledge workers. However, even though technology might not be the best solution for the success of resources sharing, it allows employees to share their knowledge easily and anytime (Anna & Puspitasari, 2013). Example of such technology is the social networking tools or apps.

Types Of Networking Apps That Impact on Resources Sharing Among Librarians

In this technological era, resources sharing methods has shifted from physical communication to virtual communication. A lot of networking apps are in place to ensure the success of resources sharing among librarians. These apps are described as computer mediated tools that allow people to create, share or

exchange information, ideas and media in virtual communities and networks (Kaplan & Haenlein, 2010). Ogunmodede and Popoola (2019) carried out a study on Resources sharing Behaviour by Librarians in Federal Universities in Nigeria. The population of study comprised 654 librarians from 40 federal universities in Nigeria. A total enumeration technique was used to cover 654 librarians. The descriptive statistics was employed for data analysis. Their study however found that knowledge is shared using social media technologies to include Whatsapp, Emails, Tweeter, LinkedIn, RSS Feed, Blog, Facebook, Yahoo Messenger and others. In a similar vein, Awodoyin et al (2016) carried out a study Resources sharing Behaviour Pattern Analysis of Academic Librarians in Nigeria. The study used an ex-post facto descriptive survey research design. Total enumeration was used to capture one hundred and seventeen (117) academic librarians in selected academic libraries in Nigeria using questionnaire as the research instrument. The findings revealed that librarians primarily share knowledge using mobile phones, emails, and web forums.

Omotayo and Salami (2018) identifies Facebook and Whatsapp are the widely used social media tools for resources sharing. Agarwal and Islam (2014) also confirm that information professionals can also transfer their knowledge in the form of knowledge-based services and products through e-mail, Web 2.0, websites, online discussion forums, videoconferencing and other collaboration tools. Webster (2006) suggested open-source software as another example of collaborative technology at work in libraries. The open-source movement in general is an important means for librarians to share software resources. Every individual open-source project establishes its own dynamic resource-sharing network.

Impacts Of Networking Apps on Resources Sharing

Networking apps are the application software designed for mutual exchange of resources, views, ideas and communication between two or more persons. The use of networking apps brought new openings for resources sharing and has played a very significant role in facilitating effective networking and decisions making among individuals and organisations (Kim & Abbas, 2010). Al-Busaidi etal (2011) categorised the impacts of using networking sites into three; individual impacts, organisational impacts and resources sharing process impacts. In the words of Ridings and Gefen (2004), people may likely use networking sites for seeking information, social support, friendship, and recreation. Though, networking platforms may not only be for networking and socialization with friends but have been recognized as a platform for knowledge exchange. Most times as indicated by Friedman et al (2014), they are used within the workplaces of organisations to facilitate work related communication and collaboration. Their use is gaining more popularity and they have been identified as beneficial to the performance and competitive advantage of organisations (Leftheriotis & Giannakos, 2014). Speed and ease of use, managing personal knowledge, easier communication with users and colleagues and powerful communication tool are the major perceived impacts that motivate individuals to use social networking devices (Islam & Tsuji, 2016).

However, networking app as an interactive technology has helped to fulfil employees' knowledge tasks and objectives (Alberghini et al, 2014). It has perfectly empowered quick exploration, access to, and retrieval of information. It also supports communication and link collaboration between staff in the organization. More so, organizations use networking sites to reach customers and as a useful source of identifying potential employees by organization. For internal employees, it can be used to support cooperative work and build stronger bonds in customers and organisational relationships, improves employees' engagement, improves internal communication, and improves development of internal communities (LorenzoRomero et al., 2011). Majchrzak et al. (2013) proclaimed that the use of social networking creates the opportunity to turn organization-wide resources sharing in the workplace from irregular activities to continuous conversion of sharing knowledge.

Problems Militating Against the Impact of Networking Apps on Resources Sharing

The factors militating against the use of apps for sharing ideas are enormous among information

professionals across the globe. These factors are related to individual, technical, organizational and social factors (Al-Busaidi etal, 2011). Most persons in an online forum fear to release their ideas or anything confidential because the feeling that they might be violating the policy of the group. Also, the fear that people might treat their opinions in negative ways. The uncertainty of the credibility of information equally contribute to problem of not sharing information.

Similarly, Islam and Tsuji (2016) carried out a study on Information Professionals' Resources sharing Practices in social media: A Study of Professionals in Developing Countries. Their study population was information professionals from 11 countries. They used Open and close ended web-based questionnaire, which were sent out via emails. The study however found some major barriers like lack of support, familiarity, trust, unfiltered information and fear of providing information. Adequate internet provision is another challenge as lack of internet access has deprived most information professionals the latest search for information, web-based learning, opportunities to be part of international research teams, and the ability to connect campuses with video conferencing (Akparobore, 2015).

METHODOLOGY

The study investigated the impact of networking on resources sharing in Rivers State University. The objective was to identify the types, extent of use, perceived impacts, and problems associated with the impact of networking apps on resources sharing. The study adopted a descriptive survey design. The population of the study comprised the total of 50 librarians (practicing and teaching staff) working in the Rivers State University. Census sampling was used to sample the entire population because of its manageable size. Structured Questionnaire was used as a research instrument for data collection. Out of 50 copies of questionnaire administered, 42 copies were found valid for analysis. Data collected were analysed using the descriptive statistics of arithmetic mean (X) and standard deviation (SD). The decision rule for the mean was calculated at 4+3+2+1/ 4 = 2.5. Therefore, responses from Research Questions 1,2,3,4 with mean scores above 2.5 were rated positive while those below were rated negative.

RESULTS AND ANALYSIS

Research Question 1: What types of networking apps impact on resources sharing among librarians in Rivers State University?

Table 1: Types of Networking apps that Impact on Resources sharing

Type of networking app impacting on resources sharing	**x̄**	**±**	**Decision**
I use my "LinkedIn App" for resources sharing	1.61	.432	Reject
I use my "Zoom App" for resources sharing	3.03	.912	Accept
I use my "Facebook App" for resources sharing	3.92	.951	Accept
I use my "WhatsApp" for resources sharing	3.97	.998	Accept
I use my "Email App (yahoo, gmail, hotmail)"for resources sharing	3.99	.999	Accept
I use my "Skype App" for resources sharing	1.78	.578	Reject
I use my "Tweeter App" for resources sharing	2.54	.646	Accept
I use my "Instagram App" for resources sharing	3.79	.8.42	Accept

Source: Survey Data, 2023

N=42, Decision rule: $\bar{x}$ =2.50 and above is Significant

Table 1 above shows the types of networking apps used for resources sharing among librarians in Rivers State University. According to the respondents as indicated, Email Apps ($\bar{x}$ =3.99); followed by WhatsApp ($\bar{x}$ =3.97); Facebook App ($\bar{x}$ =3.92); Instagram App ($\bar{x}$ =3.79); Zoom App ($\bar{x}$ =3.03); and Tweeter ($\bar{x}$ =2.54) are the various networking apps used for resources sharing among themselves.

Research Question 2: To what extent do the various networking apps impact on resources sharing among librarians in Rivers State University?

Table 2: The extent to which networking apps Impacts on Resources sharing

Extent of various networking apps impacting on resources sharing (Frequently, Occasionally, None of the above**)**	$\bar{x}$	±	**Decision**
I visit my LinkedIn App	0.98	.092	Reject
I visit my Zoom App	2.03	.422	Reject
I visit my Facebook App	3.97	.981	Accept
I visit my WhatsApp	3.99	.999	Accept
I visit my Email App (yahoo, gmail, hotmail)	3.98	.989	Accept
I visit my Skype App	1.18	.178	Reject
I visit my Tweeter App	2.51	.546	Accept
I visit my Instagram App	2.79	.5.71	Accept

Source: Survey Data, 2023

N=42, Decision rule: $\bar{x}$ =2.50 and above is Significant

Table 2 above shows the extent of usage of networking apps for resources sharing among librarians in Rivers State University. According to the respondents as represented in the table, Librarians visit and use their WhatsApp ($\bar{x}$ =3.99) regularly, followed by Email Apps ($\bar{x}$ =3.98), Facebook App ($\bar{x}$ =3.97); Instagram App ($\bar{x}$ =2.79); and Tweeter ($\bar{x}$ =2.51) in order to read, share and retrieve knowledge. This present study however confirms an earlier study of Omotayo & Salami (2018) that identifies Facebook and Whatsapp as the most widely used social networking tools for resources sharing. While LinkedIn App ($\bar{x}$ =0.98), Zoom App ($\bar{x}$ =2.03) and Skype ($\bar{x}$ =1.18) were used occasionally.

Research Question 3: What are the perceived impacts of networking app on resources sharing among librarians in Rivers State University?

Table 3: Perceived impacts of using networking apps on Resources Sharing

Perceived impacts of using networking apps	$\bar{x}$	±	**Decision**
Ease of use	3.58	.932	Accept
Cost effectiveness	3.03	.812	Accept
Speed of access and retrieval	3.97	.981	Accept

Competitive advantage	3.29	.929	Accept
Social support and cooperative work	3.90	.989	Accept
Automatic storage and preservation	3.78	.978	Accept
External and internal communication and collaboration	3.51	.896	Accept
Crowdsourcing and funding	2.89	.798	Accept
Virtual participations	3.76	.972	Accept

Source: Survey Data, 2023

N=42, Decision rule: $\bar{x}$ =2.50 and above is Significant

Table 3 above shows the perceived impacts of using networking app for resources sharing among librarians in Rivers State University. According to the respondents as represented in the table, they perceived Ease of use ($\bar{x}$ =3.58, ± .932); Cost effectiveness ($\bar{x}$ =3.03, ± .812); Speed of access and retrieval ($\bar{x}$ =3.97, ± .981); Competitive advantage ($\bar{x}$ =3.29, ± .929); Social support and cooperative work ($\bar{x}$ =3.90, ± .989); Automatic storage and preservation ($\bar{x}$ =3.78, ± .978); External and internal communication and collaboration ($\bar{x}$ =3.51, ± .898); Crowdsourcing and funding ($\bar{x}$ =2.89, ± .8=798); and Virtual participations ($\bar{x}$ =3.76, ± .972); as the major impacts of using networking apps for sharing knowledge. This however indicates that all of the items are the perception of using networking apps for resourcessharing.

Research Question 4: What problems militate against the impact of networking apps on resources sharing among librarians in Rivers State University?

Table 4: Problems Militating Against the Impact of Networking Apps on Resources Sharing

Problems that affect using networking apps for resources sharing	$\bar{x}$	±	**Decision**
Lack of Skills	2.83	.832	Accept
Inadequate internet access	2.53	.812	Accept
High cost of networking devices/subscriptions	3.67	.921	Accept
Uncertainty of the credibility of knowledge	2.59	.829	Accept
Lack of awareness and familiarity	2.70	.871	Accept
Lack of interest	3.68	.928	Accept
Fear of domination (others might take credit and dominate)	3.91	.996	Accept
Fear of criticism	2.89	.798	Accept
Lack of resources sharing culture	2.76	.872	Accept

Source: Survey Data, 2023

N=42, Decision rule: $\bar{x}$ =2.50 and above is Significant

Table 4 above shows the problems militate against the impact of networking apps on resources sharing among librarians in Rivers State University. According to the respondents as represented in the table, the major problems include: Fear of domination (others might take credit and dominate) ($\bar{x}$ =3.91, ±.996); High cost of networking devices/subscriptions ($\bar{x}$ =3.67, ± .921); Lack of interest ($\bar{x}$ =3.68, ± .928); lack of

skills ($\bar{x}$ =2.83, ± .832); Lack of awareness and familiarity ($\bar{x}$ =2.70, ± .871); inadequate internet access($\bar{x}$ =2.53, ± .812); Uncertainty of the credibility of knowledge); Fear of criticism and Lack of resources sharing culture ($\bar{x}$ =2.76, ± .872). This indicates that all of the items really affect the use of networkingapps for resources sharing among librarians.

DISCUSSION

Types of networking apps that impact on resources sharing among librarians in Rivers State University

The study found that the types of networking apps that impact on resources sharing among librarians in Rivers State University are LinkedIn App, Zoom App, Facebook App, WhatsApp, Email App (yahoo, gmail, hotmail), Skype App, Tweeter App and Instagram App

This finding corroborates with the study of Ogunmodede and Popoola (2019) on resources sharing behaviour by Librarians in Federal Universities in Nigeria. Their study also identified Whatsapp, Emails, Tweeter, LinkedIn, RSS feed, blog, Facebook, yahoo messenger and others as the common channels of sharing knowledge. Though in this current study, LinkedIn App ($\bar{x}$ =1.61) and Skype ($\bar{x}$ =1.78) were rejected. Their rejection is due to the fact that their mean scores are <2.5 in accordance with the decision rule. Though, they are also used but only by few persons in the institution understudy.

Tang et al. (2020) revealed that as a first step, providing corpora of useful network data could already enable researchers to use metadata records, blogs and LinkIn as networks for resources sharing in library centres. The study hopes this emerging field can benefit from the structured approach; the framework is able to support the finding. In contrast to existing frameworks or classification schemes, the study approach allows for defining network types based upon their particular characteristics and not a priori in line with works of Xu and Kajikawa (2018)

The extent to which networking apps impact on resources sharing among librarians in Rivers State University

The study found the extent to which networking apps impacts resources sharing among librarians in Rivers State University indicate that librarians visit and use their WhatsApp ($\bar{x}$ =3.99) regularly, followed by Email Apps ($\bar{x}$ =3.98), Facebook App ($\bar{x}$ =3.97); Instagram App ($\bar{x}$ =2.79); and Tweeter ($\bar{x}$ =2.51) in order to read, share and retrieve knowledge. This finding confirms an earlier study of Omotayo and Salami (2018) that identified Facebook and Whatsapp as the most impactful social networking tools for resources sharing. While LinkedIn App ($\bar{x}$ =0.98), Zoom App ($\bar{x}$ =2.03) and Skype ($\bar{x}$ =1.18) impacted occasionally.

The study further revealed that the zoom app may only be visited and used during conferences, meetings and workshops that are visible through Zoom, same goes to Skype that can be used to engage librarians in an extensive study through voice and video calls features. In the case of LinkedIn App, some of the librarians in the Rivers State University may have not received its full awareness that it can be used for resources sharing, even if they do, they may not have created their individual accounts for resources sharing among themselves. Other perspectives on network studies that go beyond nodes and/or edges used—for example, from the research objectives a study pursues—become possible in a more structured way. This will also extend the variety of data sources used for network studies, mostly citation databases are discussed and analyzed (Zhu & Liu, 2020).

Perceived impacts of networking app on resources sharing among librarians in Rivers State University

The study found that some pf the perceived impacts of networking app on resources sharing among

librarians in Rivers State University are ease of use, cost effectiveness, speed of access and retrieval, competitive advantage, social support and cooperative work, automatic storage and preservation, external and internal communication and collaboration, crowd sourcing/funding and virtual participations.

The study of Islam and Tsuji (2016) on Information Professionals' Resources sharing Practices in social media: A Study of Professionals in Developing Countries also identified ease of use and access as the major impacts. In the case of crowdsourcing and funding, networking apps can be used to source fund from a crowd in an online forum. It could be a fund-raising project in regard to an association or a committee of friends. It was also perceived to have eradicated the problem of physical participations in conferences and workshop etc and has now paved way for virtual participations. This does not necessarily need to happen by reconstructing existing databases and data models to include these network data. Waltman and Larivière (2020) in their study highlighted so-called *metadata record networks* as a separate category in the literature review because the study is confident this area of networking will grow, and its use be more acknowledged in the future. This potentially happens under the idea of a bibliographic data science that uses metadata records not only for networking, but also as resources sharing.

Problems militating against the impact of networking apps on resources sharing among librarians in Rivers State University

The study found that the major problems militating against the impact of networking apps on resources sharing among librarians in Rivers State University include **i**nadequate internet access, high cost of networking devices/subscriptions, uncertainty of the credibility of knowledge, lack of awareness and familiarity, lack of interest, fear of domination (others might take credit and dominate), fear of criticism and lack of resources sharing culture

The findings corroborate with an early study of Akparobore (2015) and Islam and Tsuji (2016) where they identified lack of familiarity, unfiltered information and lack of internet access as major problems. Since the study also did not find any framework that was able to classify the problems militating against the impact of networking apps on resources sharing, it adopted Ferreira (2018) study that aimed at developing a framework that is carefully compiled from previous research. The problems identified by the paper can serve as a point of reference for libraries and related institutions if they intend to make their resources sharing objectives more useful in library research (Toole et al., 2012). This can happen, for example, by inferring from node and edge types used in network studies what kind of bibliographic data researchers need to achieve certain goals. These data then could be provided by libraries by enhancing and enriching and ameliorate already existing problems already identified.

SUMMARY

The study identified some networking applications used for resources sharing among librarians in the university understudy to include Email Apps, WhatsApp, Facebook App, Instagram App, Zoom App, and Tweeter App. But only few persons used LinkedIn App and Skype App. The study also shows that only Email Apps, WhatsApp, Facebook App, Instagram App and Tweeter App were used regularly due to certain perceived impacts to include ease of use, cost effectiveness, speed of access and retrieval, competitive advantage, social support and cooperative work, automatic storage and preservation, external and internal communication and collaboration, crowdsourcing and funding and virtual participations. Despite these impacts, fear of domination, high cost of networking devices/subscription, lack of interest, lack of skills, lack of awareness and familiarity**,** inadequate internet access, uncertainty of the credibility of knowledge, fear of criticism and lack of resources sharing culture are still militate against the use of networking apps for resources sharing.

CONCLUSION

Networking impacts positively on resources sharing in libraries. Networking is an indispensable tool for resources sharing in libraries. Networking and resources sharing are major library cultural orientations that lead to knowledge expansion among students and professionals. Technology is here to make networking and resources sharing exercises easier and convenient in libraries. The utilisation of networking applications for resources sharing is and will remain very essential for all librarians that wish to be relevant in order to collaborate and schmooze with the countless needs of the knowledge-based society.

RECOMMENDATIONS

Based on the findings and conclusion reached in this study the following recommendations have been made:

1. The Rivers State University Administration should encourage capacity building among librarians on the use of emerging networking applications for resources sharing. This will help to keep pace with effective networking that could be used for knowledge exchange.
2. Let the Rivers State University library share the common burden of being user-oriented institution and gradually build the foundations of resources sharing cooperation. With its insights and ideas, it can work out a cooperative structure because it is convinced that information is power, and that the freer the information, the more powerful its positive impacts.
3. The Rivers State University Library Administration should upgrade the value and demand for information networking and resources sharing among the librarians to offer more effective services to users.
4. Rivers State University library must shift gears to "digital networking and resources sharing in library prospects and programmes in the university," to justify her existence in the changing information sharing environment.
5. Also, The Rivers State University Librarians should develop the culture, the enthusiasm and the willingness to collaborate and share their knowledge with their colleagues through networking applications for efficient services delivery to end users

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