



Use of Information by researchers: a Case Study of National Veterinary Research Institute, Vom

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Received 10 August, 2016; Accepted 23 August, 2016 © The author(s) 2014. **Published** with open access at www.questjournals.org

ABSTRACT: This study investigated the use of information by researchers in research libraries using the National Veterinary Research Institute, Vom, Nigeria as a case study. Data were generated from questionnaires obtained from 92 respondents. The analysis considered the following sub-headings, Reasons for information use; point of information use; purpose of information use; type of information obtained and quality of information utilized. The study revealed that researchers utilize information mostly in research work, also to write conference and seminar papers, to up-date knowledge, to establish facts, to generate information to communicate ideas, for lecturing and sparsely for decision making. Researchers rely more on journals as a source from which they retrieve and disseminate information. One reason ascribed to this is because it meets the basic information requirement of the researchers namely currency, timeliness and authoritativeness. Factors that influence information use are planning, writing, experimentation and analysis. Factors such as material obsolescence, unavailability of current information, restricted access to certain information sources were identified as constraints. Finally, the study concluded that information is adequately utilized by the scientists even though existing information sources are hampered by factors already enumerated.

Keywords: Information, Information use, Research institutes, Libraries and Information centres.

I. INTRODUCTION

Information plays a significant role in the scientific, technological, economic, social, cultural and educational advancement of mankind around the globe. Infact the importance of information in all fields of human endeavour cannot be over emphasised.

Scientific research has inter-related and inter-disciplinary actions. Enormous volume of information is generated from these research activities. It is pertinent therefore that the scientists need to have access to these information. They need to apply the proper methodology to acquire and use this information in their work to achieve results. This work whose theme is utilization of information by researchers is undertaken to provide a link that will expose them to new knowledge and enhance breakthroughs in their research endeavours. National Veterinary Research Institute, Vom is selected as the institution for this study for obvious reason; that the researchers have background knowledge of the tremendous research activities being undertaken there having worked there for twenty one years and four years respectively. This discourse will concern itself with a major source of information and that is the library documentation and information service of the institute. We are considering how the research scientists seek and use the right information.

Conceptual clarification

Since information use is our subject matter, we would endeavour to define the two concepts: - information and information use. Information is considered as a raw material in scientific research, no matter the discipline (Case 2007). Joan M. Reitz (2014) defines information as "Data presented in readily comprehensible form to which meaning has been attributed within the context of its use. In a more dynamic sense, the message conveyed by the use of a medium of communication or expression." Case (2007) explained that information enables the researchers to monitor the progress in their disciplines and to learn about developments in other fields of study. Clearly, there are different operational definitions of information at work as stated by Nzotta (1993). Chu (2010) maintain that in everyday sense, information means "facts, data, opinion and the like including but certainly not confined to what is revealed in the results of study, research and scholarship in all

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fields of knowledge.” Supporting this statement, Nzotta (1993) assert that information is facts gathered from various sources; the facts, he added can be in form of written or spoken statements or even non-verbal gestures. Information can be described also as, “Mankind’s accumulated knowledge derived from all subjects, in all forms, and from all sources that can help the user to reduce his level of uncertainty” (Nzotta 1993). There is no doubt that numerous definitions and meanings could be ascribed to the term information, but what determines a definition of a particular concept depends on how one sees it and the specific purpose for which the definition is being given.

Everyone in the society depends on information to improve on the quality of life. Access to the right type of information is very essential in our endeavours and existence. We are now living in information age enhanced by the information technologies, such as networking, internet and the World Wide Web (www). Developed countries of the western world are dominating in the application and use of these technologies so far. They make use of these facilities to obtain needed information faster and efficiently for utilization.

Usage is defined as making use of something or putting something into profitable use. Corroborating this view, Backer (1993) described information utilization to mean “assistance provided in the actual adoption of effort after information is available.” Thus, the utilization of information as in this study may be regarded as “making use of information provided in the library to satisfy the information need of the researchers in the National Veterinary Research Institute, Vom.

Another exponent of this school of thought, Aiyepoku (1989) identified some factors in the use of information as:

- a. Receptivity of information sources;
- b. Quality of information services;
- c. Timing of information services and;
- d. Limitation of policy makers.

By this we can say that utilization of information in libraries may be regarded as “making use of information provided in the library to satisfy the information needs of its clientele.” Many agencies generate and transmit information. Among them are the research institutes and other research organizations which NVRI is one.

Why a library in Research Institutes

As information is said to be in abundance so also are sources of information. One notable agency for transmitting information is the library and information centre. The purpose of setting up a library in an organization can among other things include: to enhance communication; to increase knowledge; to reduce duplication of effort and; to increase creativity. Understandably, different groups of people have different needs. Consequently some libraries provided specialized library information services that will meet the needs of particular categories of people. Thus, research institutes established for their use research or special libraries. Special libraries are those libraries that exist to serve the needs of the staff of the organization that set it up; or those that provide information service to a peculiar, usually well-defined set of clientele.

Evolution of the National Veterinary Research Institute (NVRI), Vom

According to Aina and Adedigba(1995), the British colonial government in Nigeria recognized the importance of agriculture in the national economy and established agricultural institutions during their rule. This fact was also supported by Iyambo (1977) and Olorunfoba (1984). The factor which motivated the establishment of veterinary practice and services by the colonial government was the scourge of rinderpest that affected cattle in their colonies. The pre-occupation of the officials at that time was to conduct livestock census, disease survey and control in the colonies.

Consequently, the National Veterinary Research Institute, Vom formally called Federal Department of Veterinary Research was established in 1924. At inception, the veterinary department had its headquarters at Zaria. However, due to the favourable weather conditions and the expanse of land suitable for veterinary practice and services, Vom was chosen as the permanent site and headquarter for veterinary research. Vom is a village in the outskirts of Jos. It is located in the Jos South local government area. The inhabitants are agrarian population.

As time went on, the activities of the Federal Government in the area of agriculture expanded rapidly. In February 1970, the Federal Military Government promulgated a decree establishing the Nigerian Council for Science and Technology to oversee the activities of the research institutes that were affiliated to it. There were eleven of them.

By 1971, the Federal Military Government again established the Agricultural Research Council of Nigeria (ARCN) by decree 25 of 1971; and by decree No. 35 of 1973, eighteen research institutes, including the

Federal Department of Veterinary Research, Vom were assigned to the ARCNC for supervision. By the legal notice No. 107 of 1975, the Federal Department of Veterinary Research Institute, Vom with effect from 1st April, 1976 and remained under the authority of ARCNC. In 1977 the NVRI came under the control of the National Science and Technology Development Agency (NSTDA) which coordinated the affairs of the research institutes. In 1980, the NSTDA was scrapped and the research institutes including NVRI were taken over by the Federal Ministry of Science and Technology. In 1992 a new authority called the Agency for Science and Engineering Infrastructure assumed the responsibilities of coordinating affairs of the research institutes. Following further re-organization of the research institutes by the Federal Government, the National Veterinary Research Institute, Vom has again transferred to the Federal Ministry of Agriculture and Natural Resources where it belonged to date.

Nature of Research Activities

Several research activities are conducted by the scientists into identifying causes and patterns of animal diseases and in developing measures to combat them. The achievements made in this effort have been laudable. In an x-ray of the achievements of the Institute, Agbo (1998) expressed that the NVRI, Vom is fast becoming a foremost research institute in the Sub-Saharan Africa. Also in 2014, NVRI Profile recorded that since 1924, 33 vaccines have been researched and developed. Out of which 15 of them were being produced in commercial quantity.

The notable areas of research activities for which the scientists require to consult library resources for information include the Bacteria, Viral and Parasitic diseases. The activities include research into:

- a. cattle diseases
- b. sheep and goat diseases
- c. poultry diseases
- d. rabbit diseases and;
- e. swine diseases

Indeed, researchers at the Institute have been very busy developing vaccines through various research activities. In all these activities, how are the information needs of these scientists satisfied? From where do they obtain their information for their research work? The general belief however is that research libraries are crucial to the quality of the research results and achievements attained in a research environment. Therefore it is expected that the research scientists working in the NVRI should liaise regularly with the library for their information requirements and utilization.

Statement of the Problem

One of the significant attributes of information is the recognition that information is composed of complex structures and that human beings react differently to information in complex ways. The effectiveness or ineffectiveness of an enterprise depends on the way and manner in which information is utilized within the setting.

In spite of the usefulness of information in science and technology, it is common knowledge that some scientists are not enriched by it. As a librarian in the institute under study, it is observed that the scientists are not making adequate use of the rich resources in the library.

We thus have here a situation where these problems will under-mine progress and hinder the achievement drive of which the institute is known for. The objectives of the study is to find out how the researchers in the NVRI, Vom utilize information in their work; identify their sources of information; to ascertain the adequacy of the information materials they utilize; to know how the research results are communicated for the benefit of others and to identify factors that inhibit their utilization of information.

Literature Review

For an organization to achieve its goal and objectives, information has to be gathered, processed and utilized to arrive at good result. Artandi (1973) sees information as that which is bought, sold, stored, traded, exchanged and consumed in economic terms. Information is essential in dealing with the complexities of any environment. He added that information can be scientifically studied, analysed and controlled for its improved utilization. Bitagi (2013) defined it as news that comes to the receiver for the first time which enables the receiver to take action according to expectations. Mohammed (2011) argued that information can be conceived as anything that adds to knowledge, ideas, skills and experiences positively or negatively that enables the receiver to take decisions or react to situations immediately or later. It could therefore, be deduced that at whatever time decision is taken, after receiving information, depends to a large extent on the body content of information.

In a study conducted by K.F. Okocha (1995) to determine the socio-cultural factors that enhance the use and transfer of scientific information among agriculturist in the South Eastern Nigeria, questionnaire were administered to a selected population. Analysis and recommendations were provided. Line (1987) considers use as “what an individual actually uses.” It is a result of information seeking, browsing or accidental discovery. Roberts (1975) noted that an individual who reads views or listens to library materials is using those materials in the expected way. That is to say an expressed demand has been satisfied and “use” has taken place. Based on these concepts of use, Nweke (1993) discussed the use of information by pre-clinical and clinical faculty members of the Maiduguri Medical College. Continuing change in the provision and access to scientific information has stimulated interest in the nature of current information usage by scientists. Rolinson et.al (1996) complements an earlier study of information technology usage by biological researchers. The results of the investigation indicated that biologists have a spread of information needs. Seng and Fu (1994) reviewed approaches to information use studies, defining information use as the seeking behaviour that leads to the use of information in order to meet an individual needs. As indicated by Nwokefor (1995), certain factors influence the use of information in an organization which Tiamiyu (1990) identified factors as:

- a. The characteristics of the work activities that users perform in particular, the complexity of the work activities, the amount of user discretion that the activities allow and the information requirements of the activities,
- b. The characteristics of the task environment specifically, the availability and accessibility of various sources in the environment,
- c. The characteristics of the information sources the subject content, brevity, accuracy of the information and

the extent that enables users to justify or account for official decisions.

Cox and Janti (2013) describe use as an activity which measures the worth of an item to a library or information system. Thus, use is the single criterion which could be considered to determine the reason for retaining a document within the collection of a library, and use is essential in guiding the collection development effort of the library. Use also justifies the need for institutions to adequately finance their libraries or not. Accordingly, the need to use information resources and services of academic libraries is to enhance the attainment of the research objectives of their parent institutions.

Bitagi and Udoudou (2013) argued that the availability of all forms and types of information resources in academic libraries is highly imperative if these libraries are to meet with the information needs of researchers in their parent institutions. The authors however, observed that due to high cost of information resources and related problems, information resources in most academic libraries are inadequate and outdated to meet the demand for current research. Adewumi (2003) observed that despite the problems of inadequate and absolute information resources, scientists still rely heavily on their use. The consequent result of this action is the production of sub-standard research result which will contribute minimally to Nigeria’s development in every sector of national economy.

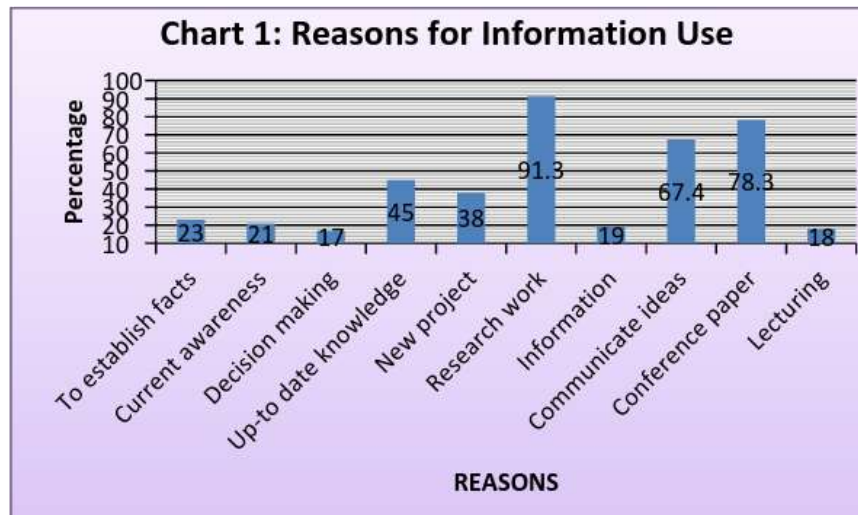
II. METHODOLOGY

The contextualsetting for this study is the National Veterinary Research Institute, Vom. This Institute is a renowned research centre mandated to conduct research and develop vaccines for the prevention and control of livestock and poultry disease. The population of this study consisted of the researchers that are working in the employment of the NVRI, Vom. The population size of this study is 120 researchers. This figure was derived from the staff list of 2014 compiled by the Institute. Structured questionnaire was administered to the entire population of 120 researchers. However 92 respondents returned the questionnaire.

The method used for data analysis was simple percentage. This was determined by dividing the scores of each of the listed options by the total number of respondents represented in this case by 92. The dividend was then multiplied by 100 to get the response rate. At the end of the analysis a comparative result of the specified option was indicated.

III. RESULTS AND DISCUSSION

Data were collected from inquest into what researchers do with the information they obtained from the library. Type of information, stage, quality and purpose for which the information is obtained: The results obtained are as presented in the following tables.



A majority of the researchers' 91.3% obtain information for their research work while significant number obtains for the purpose of seminar presentation. 78.3% and communication of ideas 67.4%. Other task areas are shown in the chart 1.

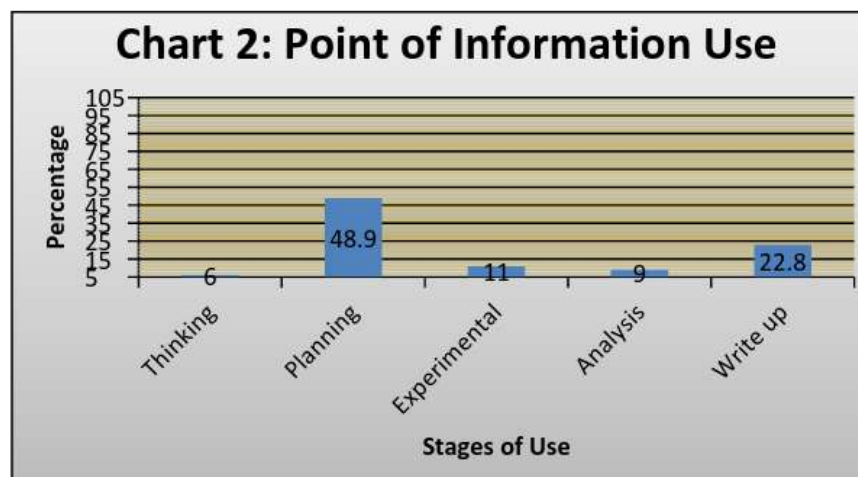
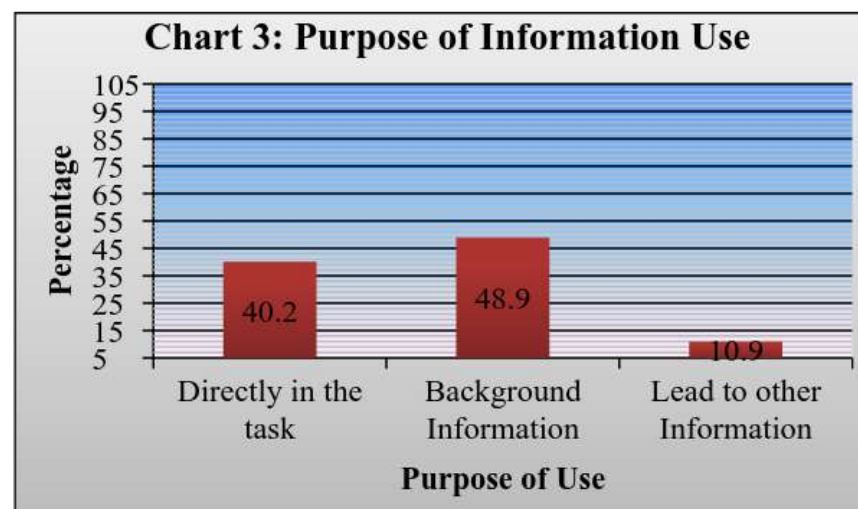


Chart2 reveals planning as the point with a highest utility value of information 48.9% while writing stage comes next with 22.8%. Other variables were not given prominence, none-the-less, they play important role in information utilization.



Equally important is use of information in background study as indicated by 48.9% respondents. However, 40.2% of the respondent declared they use it directly in their task assignment while 10.9% use it as surrogate to other information.

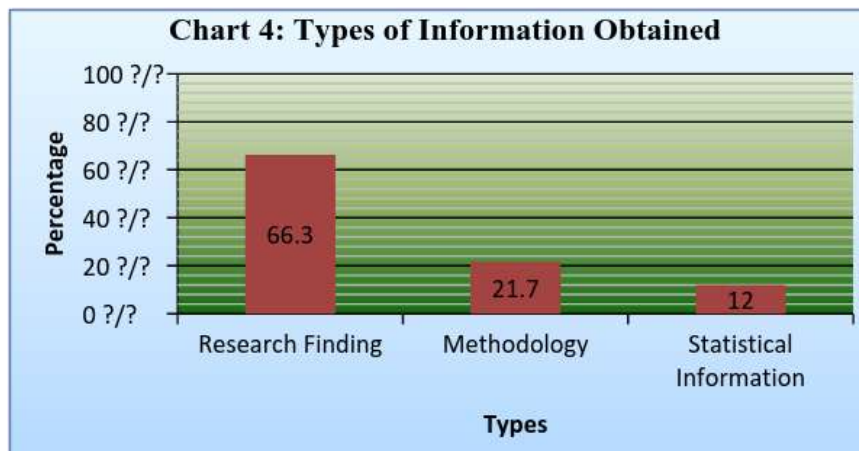
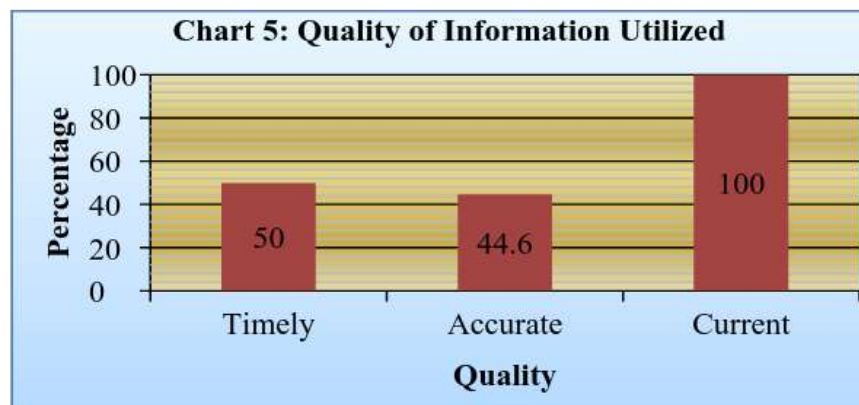
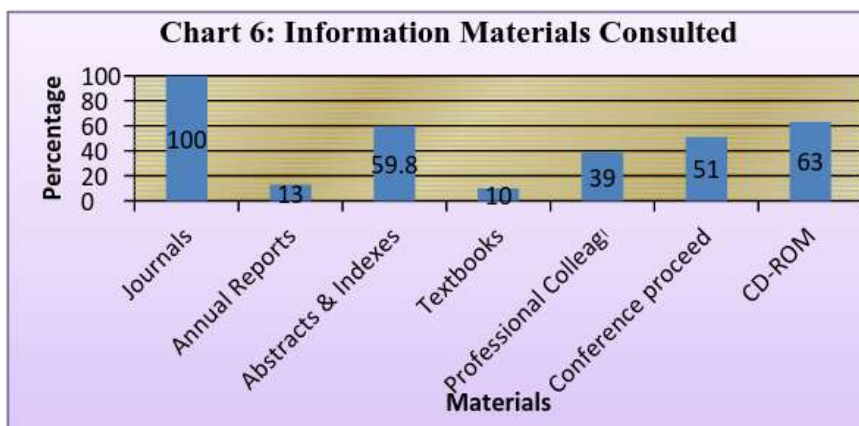


Chart 4 shows that the most crucial information excerpts used by researchers are research findings. This is attested to by 66.3% of the respondents. Methodology ranks next 21.7% while statistical information has 12%.



All the respondents demonstrated general acceptance that current information is best for research activities. It rated 100% while others followed with 50% for timeliness and 44.6% for accuracy as shown in chart 5.

Data were collected to identify the type of sources the researchers consult for information via electronic library units. The details are presented in chart 6.



The result indicates that journals are the most consulted information source by the researchers. The generality of the respondents 100% agreed to this. Other important sources are CD-ROM 63% Abstract and Indexes 59.8% and Conference proceedings have 51%. Textbooks are low may be because of the attached cost to most of them and process of payment. Low patronage of annual reports may be because many Nigerian organizations are yet to hook on to internet services fully.

IV. CONCLUSION

This study focused on electronic information utilization of the researchers in National Veterinary Research Institute, (NVRI) Vom. The purpose is to investigate the manner in which the researchers use electronic information in their library to accomplish their goals and aspirations, with a view to achieving the institute's mandate. Data collected and analysed reveal that scientists use information mainly for research, and it is at the planning stage that information is most vital. Researchers depend substantially on journals, CD-ROM and Indexes and Abstracts; moderately on conference proceedings and marginally on textbooks and annual reports.

The study has established that information is an integral part, if not a prerequisite of any research project. It has strongly advocated that information is required in the task of analysing informational problem and then deciding how to tackle it.

V. RECOMMENDATIONS

The essence of conducting research and development is to solve problems. But it must be realized that behind any successful research and development in a research institute are well equipped library and dedicated librarians, whose responsibilities it is to harness information as a vital resource for exploitation and utilization by the research scientists. This is in spite of the role information play in the research process of an establishment. To enhance effective utilization of information by the researchers in NVRI, Vom, enabling environment must prevail. In line with this, carefully selected short term actions are recommended for implementation to strengthen information provision in the library and to increase productivity of the scientists.

Among factors that impede effective utilization of information mostly is the obsolescence of information sources such as journals, indexes, abstracts and other scientific literature in the library. Also acute shortage of books and other acquisitions are common. Journal subscriptions are not sustained. It is obvious that lack of finance accounts for such disabilities. This poses serious problems for researchers who are therefore unable to keep abreast of advances in their area of research and also not encouraged to utilize information from these sources.

Based on the philosophy that there is no library that is completely self-sufficient and self-sustaining, the library should establish linkages and coordinating mechanism with the University libraries that have faculty of veterinary medicine in their campuses by way of inter library lending to promote and facilitate sharing of their resources. This will ensure a wider availability of information resources in the interim to the scientists. One of the findings shows a low level of application of information technology in the institute. The library does not possess basic equipment and resources for managing research information, like the animal health information. These include book scanners, intranet and extranet, CDROM drives, line printers consistent internet connection, etc. It is therefore recommended that expanded application of information technology including local area network will enhance the provisions of information services in the library and thus encourage utilization of information by the researchers. Researchers should also be encouraged to acquire computer literacy as this would make them to appreciate fully the benefits derived from the application of information technology.

Full time training and refresher courses to enhance staff capacities for collecting data, processing and disseminating of information and make them familiar with current developments should be encouraged. The library should also offer personalized services like selected dissemination of information (SDI) and current awareness services (CAS) to researchers. In this way the resources will be optimally exploited by the users.

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