



Factors affecting information seeking strategies of Orange Farmers in Nigeria: A Proposed Model from the Literature

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Abstract

Information is power and access to information is indispensable to every individual, group of people and organizations, whether private or public. Information seeking is iterated process which helps information seekers find information pertinent to their needs thus leveraging same to others who sought for same or similar information. This study is an examination of factors affecting information seeking strategies of Orange Farmers in Nigeria: A proposed model from the literature perspective. An analysis of Wilson's (1981) and Krikela's (1983) information seeking model was adopted for the study. The study provided a comprehensive review on the concept information seeking, sharing and factors affecting information seeking in Nigeria. A proposed conceptual model was developed by the researcher to explain the factors affecting information seeking and sharing. The study concluded that government at all levels must devote its attention to providing information to the remote rural settings where majority of the country's population lives, it was also concluded that information professionals should device ways to educate farmers on strategies to accessing online information resources.

Keywords

Information, Information seeking, Information sharing, Factors affecting information seeking

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State Chapter

Introduction

The world is in an era where the source of wealth and power is more from information and human mental creativity than physical resources. The presence of information creates options, sets the stage for meaningful decision-making and alternative approaches to problem solving and final decisions. Information constitutes the major raw material from which options or alternatives emerge. It is a valuable resource required in any society, thus acquiring and using information are critical and important activities. It is also man's related knowledge in all subjects in all forms and from all sources, which will help users to make

rational decisions. According to Bachhav (2012), the use of information in agriculture sector is enhancing farming productivity in a number of ways; providing accurate information on weather, trends, best practice in farming, timely access to market etc. Information also help farmer's to make correct decisions about what crops to plants and where to sell their product and buy inputs. The orange farmers need information to meet their critical information needs, to improve their productivity.

Orange farmers are people who specializes in growing orange fruits orchards. Their products might be sold either to a market, in a farmers' market or perhaps directly from a

farm. In a subsistence economy, orange products might to some extent be

consumed by the farmer's family or pooled by the community. The sweet orange is the fruit of the citrus species (*sinensis*) in the family (Rutaceae), native to China. It is also called sweet orange, to distinguish it from the related *Citrus (aurantium)*, referred to as bitter orange. The sweet orange reproduces asexually (*apomixis* through *nucellar embryonic*); varieties of sweet orange arise through mutations.

Citrus fruits are the main source of important phytochemical nutrients and for long have been valued for their wholesome nutritious and antioxidant properties. It is scientifically proven that oranges being rich in vitamins and minerals have many health benefits. Moreover, it is now appreciated that other biologically active, non-nutrient compounds found in orange fruits such as phytochemical antioxidants, soluble and insoluble dietary fibres are known to be helpful in reducing the risk for cancers, many chronic diseases like arthritis, obesity and coronary heart diseases (Crowell, 2013).

Citrus is widely grown in Nigeria and many other tropical and subtropical regions. In terms of volume in production, citrus ranks after banana as the world second fruit crop with more than 108 million tons (FAO Statistics 2012). Sweet orange (*Citrus sinensis*), are fat free, sodium free and cholesterol free. In addition, they contain potassium, calcium, foliate, thiamin, niacin, vitamin B6 (pyridoxine), phosphorus, magnesium and copper. Economically, oranges are important fruit crops, with an estimated 60 million metric tonnes produced worldwide as at 2005 for a total value of 9 billion dollars. Of this total, half came from Brazil and the United States of America (Bernardi, Licciardello, Russo, Chiusano, Carletti, Recupero, Marocco, 2010). The global citrus average according to FAO statistics in 2012 was nine million hectares

with production put at 122.3 million tons, ranking sweet oranges first among all the fruit crops Xu, Chen, Ruan, Chen, Zhu, Chen, Bertrand (2013).

Information seeking on the other hand is important because it tells how average citizens go about finding information that is crucial to their everyday life. It is the process in which one goes about seeking information that will meet his or her need. Igwe (2012) describes information seeking as an individual way and manner of gathering and sourcing for information for personal use, knowledge updating and development. Information seeking of individuals varies considerably from one individual to another according to age, gender, level of education, occupation, location, culture, and sources of information available etc. It is very difficult, if not impossible to identify common information seeking for all people most especially in the developing regions of the world (Ekoja, 2010). It is therefore, pertinent to understand the strategies for information seeking.

Information sharing is critical in agricultural development because it is a tool for communication and leveraging of knowledge and innovations between stakeholders. It is a channel for assessing trends and shaping decisions (Chisita 2013). The agricultural sector strongly needs to create, share and disseminate up-to-date and appropriate knowledge and information (Lotfi, Mukhtar, Sahran, & Zadeh, 2013). In this study information sharing denotes the extent to which orange farmer associations communicate their farming activities by leveraging agricultural information among themselves (Hilary, Kibwika, & Sseguya, 2017). Information sharing serves as an essential approach for the survival of any entity and enabler of value (supply) chain integration (Shou, Yang, Zhang, & Su, 2012). Recently, the concept of information sharing

has attracted the attention of scholars; most previous work was on effect of information and knowledge sharing on performance (Rashed, Azeem, & Halim, 2010). Various scholars (Grootaert & Bastelaer, 2002; Hopp, 2014) argue that there are many factors enhancing value chain performance in addition to information sharing including trust and interaction.

In trying to understand information seeking strategies of information users, it is very important to understand the factors which inhibit information search and sharing such as the user's literacy level, availability of library, skills and competency of users for assessing and utilization of online information resources etc. It is however not known to the research the factors which inhibit orange farmers information seeking and sharing strategies in Benue state, Nigeria.

Statement of the Problem

Ensuring food security is the foundation of economic development and social stability. In the face of a growing global population, food security and food sovereignty are seriously threatened Irwan, Wahyudin, and Sunarto, (2019). Over the years Nigeria has assumed the place of African fattest growing economy and also as African giant because of its population and robust economy, it is also well recognized as one of the largest population with largest agro-based country in the African sub-region Blessing, Gu, Cao, Cui, Wang, and Badu, (2022). Under the enormous pressure of the increasing population, ensuring food security is an urgent problem needing absolute attention to be solved. The gross inadequate access to and lack of dissemination of information resources to the rural areas where majority of the farmers live has complicated on the international equilibrium of food production, marketability and trade, consequently leading to disrupting effect to Nigeria's food security, and balance of trade deficit. While lack of information has continued to retard critical quantitative variables such as food

production and consumption, per capita have been on constant decrease, due to lack of farmer's knowledge on information seeking and sharing strategies, lack of technical skills and know how to exploit the available information sources from online data bases amongst other challenges. These and many more have made the volume of food imports to increased, and the number of exports continually fallen. Therefore, the researcher, seeks investigate the factors the yield of stable food, crops and fruits and influence the information seeking and sharing strategies among orange farmers in Benue state, Nigeria

Literature Perspective

The Concept Information Seeking Strategies

The way and manner people look for information varies from each other in terms of culture, religion, age, gender, occupation, location, status, education, experience and exposure. Likewise, the level of need for the same information may differ in people from the same socio-economic and political background, or in terms of availability and awareness of information and ease of use of that information (Momodu, 2012).

An assessment of the literature indicated that there is no exact definition for the term 'information seeking strategies (behavior)'. Korobili, Malliari and Zapounidou (2011) described information seeking as the process of searching and finding information, and of producing new knowledge. Similarly, Krikelas (1983) described information-seeking strategy (behavior) as "any activity of an individual that is undertaken to identify a message that satisfies a perceived need". To put in another way, information-seeking starts when someone perceives that the current state of possessed knowledge is less than that needed to deal with some issue. It can also be succinctly stated as the way people search for and utilize the information they need (Fairer-Wessels, 1990) in Case (2012) or the way people identify, locate and

acquire needed information (King, Casto & Jones, 1994). Wilson (1999) defined it as “those activities a person may engage in when identifying his or her own needs for information, searching for such information in any way and using or transferring that information”. According to Marchionini (1995) information seeking strategy is a process in which humans purposefully engage in order to change their state of knowledge, and which is closely related to learning and problem solving. To Wilson (2000) it is seen as “the purposive seeking for information as a consequence of a need to satisfy some goal”. Mostofa (2013) related it to those actions a person engages with when identifying his or her own need for information, searching for such information in any way and using or transferring information.

Information seeking is a complex process consisting of social, communicative and interactive behaviour. Wilson (2016) conceived information seeking as a user’s constructive effort to derive meaning from information in order to extend their state of knowledge on a particular issue or topic. This activity incorporates a series of encounters with information within a space of time, rather than a single reference incident. Finding information is therefore an engagement an individual gets involved in to try and rectify uncertainty in the process of moving through space and time. Searching for information is therefore experientially not a straightforward act. It is a process and form of problem solving that goes through problem recognition, problem articulation, source selection, query formulation, search execution, examination of results, extraction of required information, and reflection (Marchionini, in Case 2012).

Information seeking strategy stems from the recognition that one’s state of knowledge is less than adequate to manage a problem or issue. Considering this behavior from the point of view of informal sector

entrepreneurs, it was determined that there are numerous gaps in farmer’s knowledge that prevent them from dealing effectively with problems they face in their work situations. Information seeking behaviour is a broad term, which involves a set of actions that an individual, such as farmers, takes to express information needs, seek information, evaluate and select information and finally uses this information to satisfy his/her information needs (Pareek, and Rana, 2013). Information seeking strategy is prompted by the needs identified by an individual.

However, information need is characterized mostly by the information seeking behaviour of the person in need of information.

Information seekers can either take responsibility for their own processes, or work through or with an intermediary. Once relevant information is located, the information seeker studies, copies and integrates it with what is already available, thus enabling problem solving (Fourie, in Wilson 2016). Should the problem remain unresolved, the process may be iterated. This is, however, subject to the internal restrictions of the individual, either the enthusiasm to proceed with looking for further information or ending the process. Information seeking is seen as a process with which humans engage to purposefully change their state of knowledge. This process is said to be internally active as information seekers direct attention, accept and adapt to stimuli, reflect on progress, and evaluate the efficacy of continuing (Marchionini & Komlodi, in Case 2012). It is thus a process in which knowledge states are changed through inputs, purposive outputs, and feedback. In order to proceed with information seeking, the process requires an information seeker to apply their personal knowledge and skills. The authors describe it as a memory scan or personal infrastructure. These infrastructures or skills are: general cognitive abilities, knowledge skills in relation to the problem/task domain, knowledge and skills

in general, knowledge and skills specific to the system, and knowledge and skills regarding information seeking.

Information seeking strategy is an area of study that attracts the attention of scholars over long time to know what methods, procedures, and processes. Seekers do exactly employ to satisfy their individual needs. However, the fact that information needs exist is not a guarantee that the person who needs the information will take any action to find that information. The information seeking strategy of users depends on education, access to library and the length of time a user wishes to devote to information seeking. Information seeking strategy is a complex activity, requiring access to diverse resources to deal with work-related, personal and social information or problems (Raze, 2010). The author identified three strategies for locating information. These are people, information and system. He went further to state that the study of individual seeking behavior requires understanding of the psychological state of the users that may lead to insight into their exception and make it possible to predict information seeking activity. Adina, Nomo, Ocala and Acheampong and Dzandu (2015) suggest that information seeking strategy depends on user education, access to a library and the length of time devoted to seeking information by the user. Also, information seeking is the process or activity of attempting to obtain information in both human and technological contexts. But some individual tend to use people rather than networks to find their related information.

Bruce (2014), Case and Given (2016) and Ford (2015) stressed that the study of information behavior has developed since its inception during the 1960s when most research was directed towards understanding how professionals searched for information and the resources they consulted. Some of these researches focused on specific disciplines, while others addressed general

populations. However, in any endeavor that has to do with information seeking, there are so many hurdles to overcome and it is imperative to appreciate the factors that will affect the successes and the challenges to overcome.

Information Seeking Strategies of Orange Farmers in Nigeria

Agriculture remains the cornerstone of the Nigerian economy and it is a sector with great potential for stimulating economic growth and employment. The present age has been rightly called an "Information Age" because information has become the most important element for progress in society. Food production and security is linked to the extent to which farmer's access scientific agricultural information. In the agricultural production, relevant and timely information is prerequisite to robust farming as it helps farmers to make the right decisions (Acheampong et al., 2017). When appropriately combined with other factors of production, information can enhance productivity in every facet of human endeavor.

According to (Thuo & Njoroge, 2018), access to agricultural information influences the farming practices. He further maintained that, inefficient access and dissemination of agricultural information can negatively affect agricultural development. According to Adio et al., (2016), Agricultural information is all published or unpublished knowledge on all aspects of agriculture, and that the quality of such information depends on three attributes which are accuracy, timeliness, and relevance. Therefore, consideration of farmers' information seeking is very vital in the provision of need-based and relevant information (Anwar, 2007). Orange farming is one profession that depends on the constant flow of information. However, most farmers find it difficult to identify when they require information and the ways to articulate their information seeking.

Information seeking strategy of orange farmers involves a set of actions that orange farmers engage to articulate their needs, seek, evaluate and select relevant information pertinent to satisfy these needs. Mustaffa, (2012) describe it as the human behavior with respect to searching various sources, channels including the use of that information. In other words, it is an individual's (farmers) way and manner of gathering and obtaining information for personal use, knowledge, updating and development. The author added that the individual may interact with manual systems (such as a newspaper or a library) or with computer-based systems (such as the World Wide Web) in the course of seeking.

In the context of orange farmers, information seeking behavior is seen as a process in which the farmers purposefully engage in either proactively or by serendipity, to change their state of knowledge by acquiring and adopting new farming trends and techniques for orange productivity with the view to bridge the gap between what they know, and what they ought to know. Thus, information seeking behavior of farmers start from the recognition of some needs, perceived by farmers, who as a consequence make demand on formal system such as libraries and other information centres to satisfy the perceived information needs (Singh and Satija, 2016).

Although small scale farmers dominate agricultural production in Nigeria, individually they exert little influence, collectively they form the foundation upon which the economy rests. About 90 percent of Nigeria's total food production comes from small farms and at least 85 percent of the country's population earns their living from these small farms with farm sizes generally less than 2 hectares. Unfortunately, these small scale farmers are subsistence farmers and gruesomely lack information on modern techniques of farming as it is obtained elsewhere in the world. In the quest to find

knowledge, most of them result to informal sources of friends, neighbors, fellow farmers, churches, school villages heads, information gate keepers, agricultural chemical dealers, by chance, social gatherings, market places amongst other means, due to unavailability of the formal sources, where the formal sources are provided, the farmers lack the skills and competencies required to seek for and access agricultural information. This has contributed to the poor performance of orange production as a significant amount of the orange produce get damage in their farms. Therefore, effective economic development strategy opt to depend critically on promoting access to timely, accurate and relevant information to these group of farmers particularly to minimize their losses and promote their source of livelihood and thus increase the production of citrus which can significantly be an addition to the country's total GDP.

Factors Affecting Information Seeking in Nigeria

Information seeking strategy or pattern of an individual is determined by the individual environment, which consist of: background and characteristics of the individual; the nature and type of information need with which he/she is confronted; the type of availability of information providers; information providers capability in responding to a request and the degree and satisfaction perceived by an individual with the ability of one or more information providers to respond to his/her information needs.

According to Shakeel and Vinayagamoorthy (2013); information seeking strategy constitutes determining information needs, information searching behaviour and use of information. Pareek, and Rana (2013) opined that information seeking strategy (behaviour) as the process of information acquiring, using and implementing information. Information seeking strategy is a broad term, it involves a set of actions taken by individuals or groups

to show their information need, seek information, check and select the information to fulfill their requirement or information needs.

Phabha, Connaway and Olszowski (2007) discussed the factors that negatively impact on information-seeking behavior. They included: the feeling of information users obtaining sufficient information and consulting trusted sources, lack of time, limited financial resources, nature of the problem to be answered or question to be solved, nature of task at hand and task-domain knowledge. Others are context, situation or setting in which the information user is living or working, the particular search system engaged and motivation level of the information user and his/her information-seeking ability. Perley, Gentry, Fleming and Sein (2007) itemized the factors (challenges) relating to information-seeking behavior contributing to why information seekers do not physically visit the library and why they tend to use library websites through remote access. These are: limited time due to other works/tasks, convenient access to a computer with internet connection, lack of awareness of available library services, poor arrangement of a full range of library collection and resources, inconvenient library opening and closing hours, inconvenient physical location of library premises and availability of resources from the internet. Azadeh and Ghasemi (2016) findings with respect to information seeking behavior of researchers showed that the most important goal was publishing a scientific paper, and their least important goal was updating technical information. Therefore, the unavailability of resources to assist them in publishing scientific papers will be a major challenge to them. Azadeh and Ghasemi (2016) also found that most researchers' information-seeking behaviors tilt towards using internet-based resources to meet their information needs. Korobili et al. (2011) found out that the internet has been used as the primary source of information by many

researchers and that the issues of accessibility and convenience of access, as well as issues of time and constraints or level of difficulty are challenges to researchers. They also reported that researchers faced challenges with information retrieval techniques. Wilson (1999) explored the problems and difficulties the searchers experience in carrying out their own searches. He interviewed twenty respondents in his study which spanned a wide variety of disciplines. He stated that most of the interviewees expressed some dissatisfaction with their own capacity to search the relevant information sources; they had difficulty in determining the appropriate keywords and did not bother to explore the advanced search capability of any system. Wilson (1999) also referred to challenges of intervening variables in information-seeking behavior. These were the personal barriers (emotional, educational, and demographic), social or related barriers and environmental barriers (economic and source characteristics), while risk is another important variable.

Pontis, Greifeneder, Attalla and Neal (2017) pointed forward to coexisting factors affecting information-seeking behavior of researchers. They are accessibility, task characteristics, information carrier characteristics, user characteristics and demography. Anderson et al. (2001) discussed accessibility as an information-seeking factor in terms of preference for seeking information from one's own store of information as opposed to seeking information from others, oral communication as opposed to written communication, communication with sources inside the organization as opposed to communication with sources outside the organization, and direct communication with a source as opposed to through mediating carriers such as those provided by library personnel. This is based on principle of least effort which holds that people strive to solve their problems in such a way as to minimize the total work that

must be expended (Zipf 1949). Also, an important factor of information-seeking behavior is successful prior use of a carrier.

Various authors identified carrier characteristics such as accessibility (Culnan 1983, 1985; O'Reilly, 1982), quality (O'Reilly, 1982), and ease of use (Hardy, 1982), usefulness (Swanson, 1987), promptness or the time it takes to deliver the information (Hardy, 1982) and cost (Mick, Lindsey & Callahan, 1980; Swanson, 1987). Anderson et al. (2001) were of the opinion that despite differences in measures used and characteristics studied, the literature provides evidence of two competing written carrier characteristics, which are accessibility and quality. A review by Leckie, Pettigrew and Sylvain (1996) concluded that accessibility and familiarity are more important than perceived quality. Athukorala, Hoggan, Lehtiö, Ruotsalo and Jacucci (2013) stressed that "the way information is sought" was influenced by various factors. They used the phrase "factors affecting information seeking" to denote "information is sought" process. They stated that the factors are connected with the sources of information, the awareness of information and the outcomes of the information-seeking behavior. These factors make up the last three components of their model of information behavior. Leckie et al. (1996) explained that sources of information point to professionals seeking information from various types of sources in which combination of multiple sources may also be required to satisfy an information need, professional's awareness of information sources also known as information content determined the path that information seeking will take and the outcomes of information seeking had to do with the final stage of information - the ideal outcome is that the obtained relevant information is put to use by the professional but there is the possibility that the outcome of information-seeking process may not satisfy the information need and additional information

seeking is required. Leckie et al. (1996) also listed the factors linked to information awareness which included familiarity and prior success, trustworthiness, packaging, timeliness, cost, quality and accessibility. Krikelas (1983), Leckie et al. (1996) and Leckie (2005) stated that work related situations (as a factor) revealed the information needs of professionals and thus their information seeking behavior. Also, Leckie et al. (1996) listed the factors influencing information-seeking behavior which included personal reasons for seeking information, the kinds of information being sought, and the ways and sources with which needed information is being sought.

Nel (2015) elucidated factors that played a role in information-seeking behavior of researchers. They are: (i) information needs - these included topic complexity, topic familiarity, prior topic search experience, purpose and type of search, (ii) information seeker - this included demography (e.g. age, gender, academic level), discipline, time, awareness of service and sources, knowledge of service and sources and search skills, and (iii) information source - this included location of the information source, format of the information delivery system (print versus electronic), and ease of access of the source (convenience). Nel advised that these factors are very important and should be taken into account by libraries when developing services and purchasing products to address information-seeking behaviors of researchers. Haines, Light, O'Malley and Delwiche (2010) maintained that the basic science researchers expressed a positive attitude toward the library but they did not view its resources or services as integral to their work. This suggested that the library was not playing its role properly. Therefore, the library needed to assume a centralized role in creating, sharing and managing resources.

Wilson (1981, 1999) and Bhatti (2009) noted that information-seeking behavior may be

determined by a wide variety of user needs factors which may include personal, psychological, demographical, role-related (professional), interpersonal, environmental and source-related characteristics. Wilson (1981, 1999) further pointed out that the decision to seek information is dependent on motivation which may have a cognitive origin or be emotionally based as in the need to reinforce previous values. Ucak and Kurbanoglu (1998) emphasized that the field of research is the main reason that determines the type of information being sought. Likewise, Niu and Hemminger (2012) in their survey data of academic researchers in natural science, engineering, and medical science from five research universities in the United States of America explored the influence of demographics, environmental context, and disciplines on the information behavior of scientists.

More Recently many studies such as (Lacovic, 2015; Lo & Chu, 2015; Taylor, 2012) corroborated that this new age information-seeking strategies may be challenging, resulting in inexperienced researchers moving away from subject-specific resources and towards search engines and similar digital tools. Many researchers strive to be effective and productive, noting that keeping up on research is crucial for success. However, staying current continues to be a scary task for researchers (De Groote, Shultz & Bleicic 2014; Niu & Hemminger 2012; Pontis, Blandford, Greifeneder, Attalla & Neal, 2017) not to talk of disadvantage illiterate farmers who grossly lack access to the information sources and the technical requirements to use them. While technology is supposed to help information user to be more efficient, users are gradually feeling deluged by information choices (Larsen and Ins, 2010; Levitin, 2014; Pain, 2016). However, recent studies exploring farmers' information-seeking behaviors have involved (Engel, Robbins & Kulp, 2011; Freund, 2015; Johnson & Simonsen, 2015). These studies collectively agreed that farmers aspire to

staycurrent in their profession, need to remain flexible, use a variety of resources, and be open to different strategies when exploring unfamiliar and new farming research innovations. This current study attempts to investigate the information-seeking behaviors of orange farmers in Benue State.

Information Sharing

Agricultural information needed by the rural farmers could be according to their needs and is still remain largely unmet which could be attributed to neglect of rural communities of the country. Information accessibility and utilization are unequally distributed between the rural communities of Nigeria, this is because information available to them is either not reliable or is distorted in the process of transmission and this unhealthy situation constitutes a major impediment, which keeps the rural communities from the development indicators Harande (2009).

Information sharing can be understood as 'a set of activities by which information is provided to others, either proactively or upon request, such that the information has an impact on another person's (or persons') image of the world ... and creates a shared, or mutually compatible working, understanding of the world' (Sonnenwald, 2016). Thus, the process of information sharing agricultural information incorporates two major aspects, i.e., giving information to others, and receiving information that has been provided by the information giver. Agricultural information sharing is an activity through which opinions, facts, scientific innovations, new farming techniques, and ideas are transferred from a farmer (or group of farmers) to other farmers. The most common verbs depicting the viewpoint of transmission include disseminate, give and provide. One of the first researchers approaching information sharing from this perspective was Krikelas (1983) who introduced the term information giving in a model of information-seeking behaviour. Unfortunately, the above term

was characterized at a general level only. According to Krikelas (1983, p. 13), information giving is simply 'the act of disseminating messages... the messages may be communicated in written (graphic), verbal, visual or tactile forms'. More recently, Haythornthwaite (2010, p. 4838) describe the viewpoint of transmission even more succinctly and somewhat tautologically in terms of information transfer. It is a process that can come about as 'direct transfers of ideas, an innovation or new knowledge from one farmer to another regardless of location'. The proposed conceptual model clearly explains this concept of information seeking and sharing by farmers as used in this article.

Theoretical Framework

This study adopted a critical literature review analysis to identify the theoretical submission relevant and related to the concepts of the study. In this regard, a number of submissions were identified from the existing body of knowledge. Such submissions were critically reviewed and evaluated in line with the issue at hand and to populate the proposed conceptual model developed by the researchers. This approach is appropriate for this study because the researchers used qualitative data from a very large body of literature to represent the human experiences.

The study is framed within the theoretical assumption of a popular model of Information Seeking Behavior developed by Wilson's (1981) and Krikela's (1983). The model suggests that the user perceives a need in the context of his environment. This means that in a given environment, the user

will perceive an information need. The perceived need will lead the user to search for information, making demands upon a variety of information sources. These information sources include information systems, libraries, archives, information and documentation centers, human resources (experts, professors, colleagues); and other resources like personal library and the media. Information seeking behavior may lead to either a success or a failure. If successful, such information is fully utilized and shared or transferred to others. This occurs when the located information has been analyzed and satisfies the original need. In the case of non-satisfaction, the information seeking process may be repeated until satisfaction occurs. A failure to find information may result in the process of information seeking to be continued.

Krikelas (1983) opines that Information seeking begins when someone perceives that the current state of knowledge is less than that of the perceived knowledge needed to deal with some issues (or problem). The process ends when the perception no longer exists.

This means that information seeking process ends when the perceived need has been satisfied.

Developing the Conceptual Framework

The conceptual framework or model for this study is developed after going through different literature by the researcher. Based on the concepts of the study, the researcher has developed a conceptual model for the study.

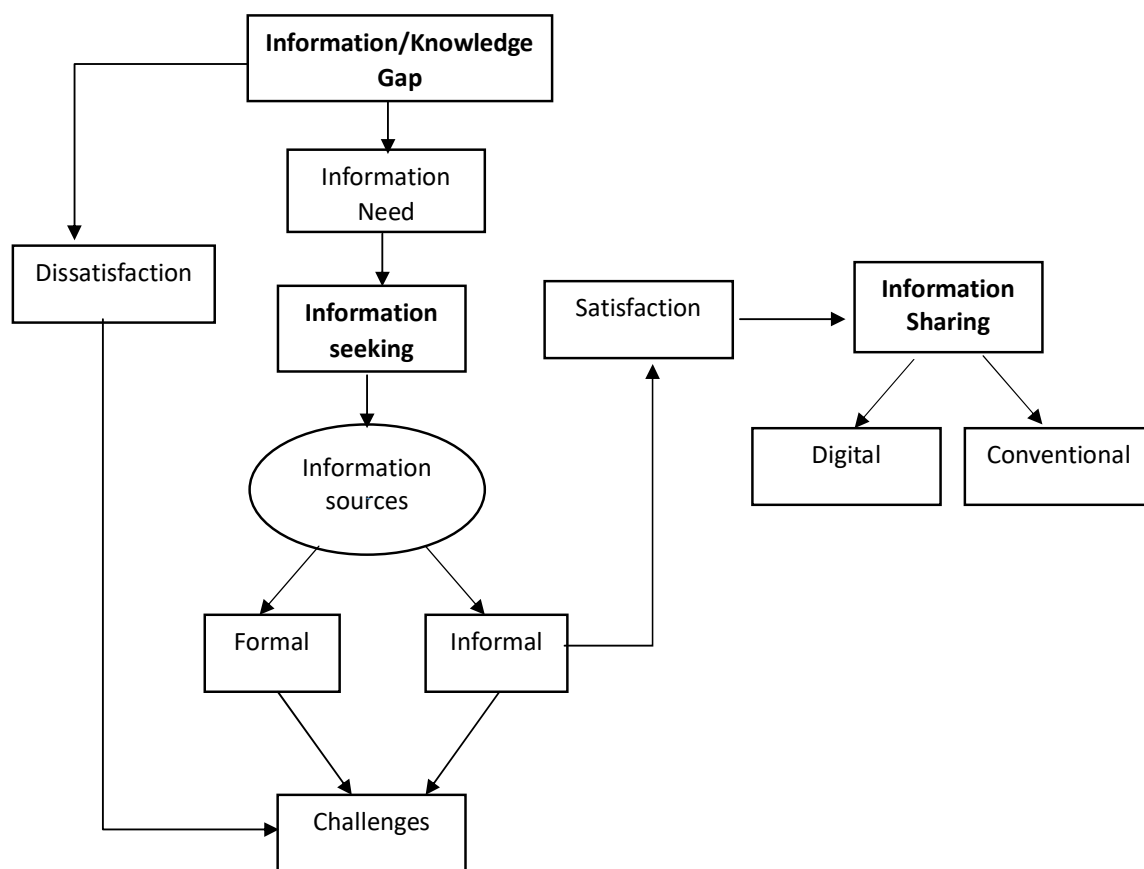


Figure1: Proposed Conceptual Model for understanding the Factors affecting information seeking and strategies of Orange Farmers in Nigeria

The model was developed by the researcher, taking into cognizance the variables underlying the study. This model is divided into two, viz; Independent and Dependent variables. The independent variable in this case refers to the information seeking strategies employed by orange farmers for orange production activities in Benue State. Whereas the dependent variable are the strategies

There is always information gap which necessitates the need and desire of a farmer to seek for information to bridge the knowledge gap. The attempt to bridge the information gap lead to information seeking by orange farmers in order to be updated on the current trends, methods of farming as well as ways of accessing credit facilities and

modern facilities for orange farming. These needs lead to seeking for information.

In the course of seeking for information, the user or orange farmer interact with the information sources which may either be formal or informal sources. The formal sources are always information which has been documented or carefully written, selected, organized and made available for use in form of databases, documentation centers, libraries, archives etc, which in most cases especially in the rural setting according to literature review are rarely utilised as a result of non-provision or lack of knowledge and competent skills to retrieve and put into prudent use by the farmers who are mostly semi-literate or illiterates. Most of the farmers seek for agriculture information through informal sources such as friends, colleagues, family members, and agricultural

extension workers and information gate keepers or few elites around them as shown in the review of related literature. The reasons are advanced to include easy availability, credibility, less expensive to access and trust as it is mostly a one-on-one contact which provides the platform for demonstration and asking of questions by the farmers.

Therefore, in the course of seeking for information, if such action is successful, the farmers are likely to share the information to their colleagues and friends. Though literatures have shown that this information is shared among farmers through digital methods such as the internet, social media, video conferencing etc. Also in traditional rural settings where the utilization of internet and its gadgets is still not adopted or unknown to the farmers, such knowledge is shared through friends, colleagues, churches, mosque, market traders, and town criers amongst other means.

Though in the course of seeking and sharing of these information resources, the user or farmer is likely to encounter several challenges amongst which include; lack of trust and credibility in the information provided to them, unavailability of information sources to provide the desired information needed by all.

Thus, the above model explains the components of the study as well as the conceptualization of the theories of information seeking and sharing by farmers in this study.

Conclusion

An improved information and knowledge flow to, from, and within the agricultural sector are key components in improving agricultural production and linking increased production to remunerative markets, thus leading to improved rural livelihoods, improving quality of yield, food security and national economies (Asaba et al., 2006). The agricultural sector is the backbone of many

economies in Africa, in Nigeria, the economy depends heavily on agriculture, which accounts for more than 25.7% of Gross Domestic Product (GDP), provides 30.9% of exports, and employs over 70% of the work force (Federal Ministry of Agriculture, 2016). The advancements in information and communication technology (ICT's) also provide an opportunity for developing countries to harness and utilize information and knowledge to improve productivity in various sectors, including agriculture (Lwoga & Ngulube, 2008).

Therefore, African countries must devote their efforts to the dissemination of knowledge and information, especially in rural areas, where 70 to 80% of the African population lives. There should also be corroboration and positive linkages between information service providers, research institutes, libraries, agricultural extension agencies and farmers for efficient and effective provision of information resources for these disadvantaged users who form the circle within which the country's food production revolves.

Similarly, farmers should be educated on the use of modern technologies for accessing and utilization of information resources to enable them harness the available online information resources from the internet.

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