

## Influence Of Media Resources Availability And Utilisation On Job Satisfaction Of Agricultural Researchers In Southwestern Nigeria

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**Abstract:** The study examines influence of media resources availability and utilization on job satisfaction of agricultural researchers in Southwestern Nigeria. The respondents consisted of agricultural researchers and the descriptive survey of correlational type was used. Four hundred and sixty two copies of the questionnaire were distributed using total enumeration technique, 334 were returned representing 72.3% return rate. The data collected were analysed using descriptive statistic of frequency counts, mean and standard deviation while Pearson product moment correlation and multiple regression were used to test the hypotheses. The results of the finding showed that newspapers ( $\bar{x}=2.96$ ) and journals ( $\bar{x}=2.77$ ) were mostly available print resources while the E-mail ( $\bar{x}= 2.32$ ), internet ( $\bar{x}= 2.31$ ), and E-books ( $\bar{x}= 2.12$ ) were the electronic resources frequently available. Agricultural databases were scantily available. The most preference media resources were journals ( $\bar{x}=3.19$ ) and textbooks ( $\bar{x}=2.88$ ). Electronic media like the internet ( $\bar{x}=3.28$ ) and electronic mail ( $\bar{x}=3.11$ ) and agricultural databases like AGORA ( $\bar{x}=2.20$ ), FAO publications ( $\bar{x}= 2.08$ ), OARE ( $\bar{x}=1.96$ ) and CAB Abstract ( $\bar{x}=1.90$ ). The study further revealed that there was a positive and significant relationship between media resources availability and job satisfaction of researchers ( $r = .266^{**}$ ,  $N= 334$ ,  $P < .01$ ); a positive relationship existed between media resources utilization and job satisfaction ( $r = .292^{**}$ ,  $N= 334$ ,  $P < .05$ ) and a significant joint influence existed between media resources availability, media resources utilization and job satisfaction of agricultural researchers ( $F_{(2,331)} = 20.521$ ;  $R^2 = .110$ ;  $P < .05$ ). The study identified poor funding (86.8%), irregular electricity (81.4%) and inadequate media resources (71.3%) as constraint to media usage in Nigeria. Finally, the study recommends constant electricity and information literacy training for researchers.

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### Introduction

Media resources mean anything that can provide intellectual support to the users. It includes books, periodicals, newspapers, pamphlets and ephemera, audio and video recording stored in computer memory, on magnetic tape, film materials, graphic computers, CD-ROM and others according to Elaturoti (1977) as cited by Adeoye and Popoola (2011). It is a collection of different forms of communication, such as television, computer, printer, modem and video disk recorder, connected to allow information to be presented in any combination of media, such as textual, audio, video, or electronically (The World Book Encyclopedia, 2008). Agricultural researchers need various kinds of media resources for research in research institutions and teaching in colleges of agriculture, for the purpose of self-development, research breakthrough and impacting knowledge in students. To achieve this, the right media resources must be available for the right person at the right time in its appropriate format. According to Gregorio and

Sison (1989) as cited by Oladele (2010), modern agricultural efforts must be supported by media resources which will, not only keep researchers informed of the advances in their specialization but also provide exhaustive coverage of publications related to their work and those of their colleagues. Media resources are very vital to the overall performance of researchers in agricultural research institutes in developing and developed countries.

As submitted by Chimanikire, Mutandwa, Gadzirayi, Muzondo and Mutandwa (2007), job satisfaction leads to high job productivity or performance by workers. When an agricultural researcher is satisfied with what he does, he will in turn give his best toward the attainment of the general goal of the institute. Consequently, when the agricultural researcher is satisfied, the question of poor performance and inefficiency will be a forgotten issue in agricultural research institutes. According to Droussiotis (2004), managers who are successful in motivating employees often provide an environment in

which appropriate or adequate incentives are made available for the needed satisfaction of the employee. It is the duty of the institute's management to create and develop an effective environment in which agricultural researchers will be satisfied to become productive members of the institute. The satisfaction that an agricultural researcher gains from his job in a formal organisation is paramount to the worker however; the definition of job satisfaction has visibly evolved through the decades. Most versions share the belief that job satisfaction is a work-related positive emotional reaction. Job satisfaction describes how contented an individual is with his job. According to the Cambridge Advanced Learners' Dictionary (2003), job satisfaction refers to the feeling of pleasure and achievement which one experiences in the job when one knows that his work is worth doing, or the degree to which work gives the feeling of pleasure and achievement. Spector (1997) suggested that job satisfaction is helpful in evaluating the emotional wellness and mental fitness of agricultural researchers and that agricultural research institutes can use the information gained from the use of media resources to improve departmental policies and practices where dissatisfaction is expressed. Significantly, job satisfaction is very essential to the continuing growth of agricultural systems around the world and they rank alongside professional knowledge, skills, competencies, as well as strategies, in determining agricultural success and performance. In other words, professional knowledge, skills and competencies can be observed when one is taking on and mastering challenging tasks directed at agricultural success and performance (Filak and Sheldon, 2003).

There are five aspects that make up an individuals' level of job satisfaction. These include pay, promotion, supervision, the work itself and co-workers (Hanisch, 1992). Each person has different reasons for liking or disliking his/her job, therefore job satisfaction is an evaluative statement of how one feels about his or her job (Robbins, 2003). Some aspects of the job may increase or decrease satisfaction according to the degree of challenge experienced on the job, how interesting it is, the extent of physical demands, working conditions, types of rewards available, extent of support one receives from colleagues, and so on. On an individual basis, satisfaction is a moderating variable related to productivity; however, organisations with more satisfied employees tend to be more effective than those with less satisfied employees (Ostroff, 1992). When employees are satisfied, they have fewer absences and there is less failure (Robbins 2003; Hellriegel, Slocum and Woodman, 1998). In addition, satisfaction to work is essential in the lives of researchers because it forms the fundamental reason

for working in life. Almost every researcher works in order to satisfy his or her needs in life, which he or she constantly agitates for. Job satisfaction in this context is the ability of the job to meet researchers' needs and improve their job performance. Job satisfaction has been the most frequently investigated variable in organisational behaviour (Spector, 1997). It is an area of particular interest to organisational managers and those who work for them (Cranny, Smith, and Stone, 1992). In the academia, individuals such as, directors, deans, and others involved in the administration and supervision of members should be concerned with the job satisfaction of employees. Organisations' measure job satisfaction because of the relationship with the organisations' short-term goals of increasing individual productivity, reducing absences, lethargy, and other related issues (Smith, 1992). The level of individuals' job satisfaction can lead to behaviours that affect the functioning of the organization (Spector, 1997).

Individuals with a greater sense of job satisfaction tend to be happier and have a greater sense of trust with management (Smith, 1992). Unfortunately, there is not one organization where all workers will be completely and consistently satisfied with all facets of job satisfaction (Judge, Hanisch and Drankoski, 1995). Therefore, it is imperative to continuously measure the level of job satisfaction among employees for managers to know what can and should change in the work environment in order to improve employee job satisfaction (Cranny, et al 1992). Employees possessing a greater sense of job satisfaction are likely to have a better quality of life, greater physical and mental health, more job stability, and exhibit greater cooperativeness with supervisors and managers (Cranny, et al 1992). Job satisfaction varies among researchers. For example, Peretomode (1991) and Whawo (1993), have suggested that the higher the prestige of the job, the greater the job satisfaction. In addition, job satisfaction is individualistic and it affects one's feelings or state of mind. When agricultural researchers feel satisfied, they will be less likely to leave the job. Keeping agricultural researchers productive and satisfied can limit costly turnover and increase an institute's overall productivity (Davis and Newstron 2003).

Researchers in agricultural research institutes are saddled with the responsibility of conducting research in various areas of agriculture to enhance agricultural production, boost agricultural output and thus provide adequate food for the nation and raw materials for industries in Nigeria. Preliminary research has shown that researchers rarely go to the library to use media resources and this is due to insufficient media resources needed to carry out the responsibilities given to them in most agricultural research institutes in

Nigeria. Consequently this situation has caused dissatisfaction in the job performance of the agricultural researchers. The present economic situation in Nigeria also limits the amount of media resources provided to researchers thereby affecting their use of relevant media resources to carry out their research activities and this has led to dissatisfaction on the job.

As agricultural researchers continue to turn their attention toward what would make them satisfied, it is important that the influence of media resources availability and utilisation on job satisfaction in agricultural research institutes be studied in detail. Research findings could help in discovering change which could enhance job satisfaction among researchers especially when media resources are available and utilised in agricultural research institutes. The aim of this study therefore, is to investigate the influence of media resources availability and utilisation on job satisfaction of researchers in agricultural research institutes in Southwestern Nigeria.

#### **Objectives of the study**

The main objective of the study is to examine the influence of media resources availability and utilisation on job satisfaction of researchers in agricultural research institutes in Southwestern Nigeria.

The specific objectives of this study are to:

1. identify the types of media resources available for utilisation by researchers in agricultural research institutes in Southwestern Nigeria;
2. identify the most preferred media resources used by researchers in agricultural research institutes in Southwestern Nigeria;
3. investigate the relationship between media resources availability and job satisfaction of researchers in agricultural research institutes in Southwestern Nigeria;
4. find out the relationship between media resources utilisation and job satisfaction of researchers in agricultural research institutes in Southwestern Nigeria;
5. examine the influence of media resources availability and utilisation of media resources on job satisfaction of researchers in agricultural research institutes in Southwestern Nigeria and
6. identify constraints to the utilisation of media resources by researchers in agricultural research institutes in Southwestern Nigeria.

#### **1.4 Research questions**

The following questions were addressed in this study:

1. What are the types of media resources available for use in agricultural research institutes in Southwestern Nigeria?
2. What are the most preferred media resources used by researchers for publication outputs in agricultural research institutes in Southwestern Nigeria?
3. What are the constraints to the use of media resources by researchers in agricultural research institutes in Southwestern Nigeria?

#### **Hypotheses**

The following null hypotheses were tested in the study at 0.05 level of significance.

H<sub>01</sub> There is no significant relationship between utilisation of media resources and job satisfaction of researchers in agricultural research institutes in Southwestern Nigeria.

H<sub>02</sub> There is no significant relationship between availability of media resources and job satisfaction of researchers in agricultural research institutes in Southwestern Nigeria.

H<sub>03</sub> There is no significant joint influence between availability and utilisation of media resources on job satisfaction of researchers in agricultural research institutes in Southwestern Nigeria.

#### Literature Review

Media resources play an important role in agricultural research institutes. They are collection of resources that serve as repositories and access points for prints, audio, video, visual and electronic resources in numerous formats. These formats include print documents such as books and journals; visual resources which are posters, maps, microforms; audio resources such as audio books, audiotapes, Compact Disks (CD), cassettes; audio visual resources which include videotapes, Digital Versatile Disks (DVD), videogames and electronic resources which are projectors, e-books, laptops, mobile phones, camera and the internet. Every researcher needs information for decision making because information is a key factor for a country's economic success. Media resources can improve life and activities of the citizens as well as researchers in agricultural research institutes if available and well utilised because relevant information got from media resources can help agricultural researchers to get their research activities done. Also the quality of a country's development is determined by the flow of information available to the citizenry. Media resources can also enhance decision-making processes at all levels of agricultural research. According to Eqbal and Khan (2007) as cited by Okiki (2013), availability of media resources enhances its utilisation more frequently by agricultural researchers and influences the opinion of researchers. Also, Okiki (2013) revealed that researchers are better informed

and satisfied when media resources are available for consultation.

Media resources can also be regarded as the procedures, equipment, facilities, software, and data that are designed, built, operated, and maintained to collect, record, process, store, retrieve, display, and transmit information. The types of media resources preferred by agricultural researchers are as diverse as the types of agricultural production they pursue, Sathe, Grady and Giuse (2002) studied the impact of print media resources and electronic media resources on research processes at the Vanderbilt University Medical Centre. They discovered some significant differences in the way that print and electronic media are used in the research cycle. Media resources such as magazines have been shown to be an important resource for various types of agricultural information across demographic and socioeconomic groups (Gloy, Aridge, and Whipker, 2000). According to Maddox (2001), print media was one of the resources preferred by Agricultural researchers in Michigan while North Carolina agricultural researchers were reported as using print resources more than any other form of media in disseminating information. Agricultural researchers disseminate agricultural information to farmers through the use of media resources such as farm papers, farm magazines, newspapers, radio, and television (Maddox, 2001). According to Johnson and Prijatel, (1999), Agricultural magazines have always been popular in America with rural audience, and at one time were considered by the industry a distinct type similar to today's consumer, trade, and organisational magazines. Oduwole (2004) posits that the most prominent media resources today is the internet and that it provides the largest reservoir of vital information in all kinds of disciplines all over the world. Hence, its universal acceptability in the world of research is synonymous with research institutes and university.

Another important media resource used by agricultural researchers as seen in literature is Information Communication Technology (ICT). According to Ehikahmenor (2003), information technology is defined as the acquisition, processing, storage and dissemination of information by means of computer, office machine and telecommunications. Proper use of ICT will help the growth and development of agricultural researchers especially where other resources like books and journals are costly. Radio, television, tele-conferencing and Internet technology have all been used to transmit agricultural technology to users (Singh et al. 2003). The use of radio and television to reach farmers should be augmented with information communication technologies such as internet and satellite communication. Information communication

technology plays a major role in the transfer of modern agriculture technologies from global pocket to farmers field (Kumar et al., 2002). Agricultural researchers such as extension agencies must make farmers aware of the use of ICT in order to get informed on recent research in the agricultural sector.

According to Webster's Dictionary (2005), job satisfaction refers to how well a job provides fulfillment of a need or want, or how well it serves as a source or means of enjoyment. Job satisfaction describes how content an individual is with his/her job. Job satisfaction includes overall satisfaction about the job, self- motivation in doing the job and specific satisfaction about job security, pay and other compensation, peers and coworkers, relationship with ones supervisors and opportunities for personal growth (Goetting, 2004). Weiss (2002) believed that job satisfaction is a pleasurable emotional state resulting from the assessment of ones job, an emotional reaction to ones job and an attitude towards one's job. Luthan (1998) as cited by Tella, Ayeni and Popoola (2007) speculated that there are three important dimensions to job satisfaction, according to them, job satisfaction is an emotional response to a job situation and it is often determined by how well outcome meets or exceeds expectations. For example, if agricultural researchers feel that they are working much harder than others in the institute but are receiving lesser rewards they will probably have a negative attitude towards the work, the boss and or co-workers. On the other hand, if they feel they are being treated very well and are being paid equitably, they are likely to have a positive attitude towards the job.

When there is no job satisfaction for researchers in agricultural research institutions, there will certainly be job dissatisfaction, and this will encourage absenteeism, affect employee turnover and heighten job stress. Agricultural researchers who are satisfied at their work places will show positive attitudes in their homes and make a psychologically healthy society (Chimanikire et, al. 2007). Skibba (2002) reported a relationship between job satisfaction and job performance of employees. He claimed that job satisfaction of employee like those in the agricultural research institutes would affect productivity and performance of their organisation. Chimanikire et, al. (2007) categorized factors that could have an influence on job satisfaction of employee in any organisation into organisational policies and procedures that have to do with the nature of remuneration package, supervision and decision making practices and the perception of the quality of supervision, aspects of the total work load, the variety of skills applied, autonomy, feedback and the physical nature of the work place and scrutiny aspect such as self-image,

ability to deal with stress and general satisfaction with life.

Apart from these, where there is lack of job satisfaction for agricultural researchers, researchers may begin to experience job stress. Mills (1990) stated that stress in a working environment or on an individual is a condition during which there is a feeling of worry and unpleasantness due to high demands on the individual both physically and mentally. Lemu (2007) defined job stress as a condition produced from lack of regard for physiological, psychological and psycho-social comfort from the equipment used in working and other considerations that can be found in the working environment. According to Spielberger and Reheiser (2008), job stress is also one of the factors that adversely affect the productivity of employees in an organisation such as agricultural research institutes as it could affect the health and wellbeing of researchers. Job satisfaction is important for the personal wellbeing of agricultural researchers and their effectiveness.

Ilies and Judge (2004) stated that job satisfaction is a concept reflecting one's evaluation about one's job as well as an emotional reaction to it. Job satisfaction is so important in that its absence often leads to weariness and reduction in organizational commitment. Lack of job satisfaction is a predictor of quitting a job according to Alexander, Litchenstein and Hellmann (1998) agreed that sometimes, there is movement from one profession to another in search of greener pasture. This is common in a country like Nigeria where citizens struggle with dwindling economy and its concomitant such as poor conditions of service and late payment of salaries (Nwagwu, 1997). In such a country people tend to migrate to better and consistently paying jobs (Fafunwa, 1971). From this perspective, satisfaction on a job might be motivated by the nature of the job, its pervasive social climate and extent to which workers peculiar needs are met. Other factors that could affect job satisfaction are the availability of power and status, promotion opportunities, and task clarity (Bolarin, 1993; Gomenxhenandez, Max, Kosier, Paradiso and Robinson, 1997).

In his research work on job satisfaction of Agricultural Assistants working under India National Agriculture Extension Project, Menasihal (1992) found that 45.33 per cent of agricultural researchers had an average level of job satisfaction. According to him, about fifty five per cent of the agricultural researchers belonged to low job satisfaction category while only 19.34 per cent had high level of job satisfaction. Job satisfaction also relates to the degree of employees emotional orientation toward the work role occupied in the organization according to Lease (1998). Girija et, al. (1994) in their study on

agricultural graduates employed in different sectors, reported that 46 per cent of them were satisfied with their job, while 25 per cent and 29 per cent were less satisfied and highly satisfied respectively. Keregero and Mthupha (1997) recognized that agricultural researchers such as extension workers in Maharashtra perceived their job as non-satisfactory with respect to supervision and performance evaluation. Manjunath and Lakshminarayan (1997) opined that job satisfaction was linked to relationship with other colleagues and dissatisfaction was linked to force to do unrelated work and complete official work at home.

Agriculture is an important segment in the economy of both developed and developing countries. Many countries, like Nigeria have realized the value of agriculture and are making attempt to sustain it by pragmatic agricultural policies. One of such policies in Nigeria is the establishment of specialized institutions otherwise known as research institutes, to carry out research in agriculture for socio-economic development of the country (Ezeala, 2011). Agricultural Research is a process in which inputs (like knowledge base as well as physical and financial resources) are combined to produce outputs (for example, scientific information). Research institutes in most developing countries sought to increase the productivity of staples which has assisted the mandate of research agriculture expanded to include more sophisticated agricultural products and markets, sustainability and poverty alleviation (Byerlee, Alex and Echeverria, 2002). Tackling these issues required developing research capabilities in new products (especially high value products), post-harvest and sustainability. Aina and Adedigba (1995) acknowledged the immense contributions of the agricultural research institutes in Nigeria as regards agricultural production through the efforts of the scientists who have researched into various areas of agriculture.

Research results are communicated to farmers through agricultural researchers such as extension officers. Each agricultural institute's library responsibilities include media resources collections such as internet, AGORA, PROTA, LANTEEAL to achieve their objectives and to function efficiently. The guidelines for the management of national agricultural research institutes (2005) itemized the reasons for the establishment of the National Agricultural Research Institutes, this is as follows to generate new agricultural technologies that are appropriate for the improvement of goods and services. To modernize indigenous technologies for improved production in agriculture and related issues, and to develop appropriate agricultural systems that will domesticate imported technologies to the Nigerian situation.

Agricultural research is expected by stakeholders to make contributions towards solving farmers problems, create new business opportunities and address environmental issues (Rivera, 2009). Agricultural research is aimed at promoting agricultural development by providing information on improved production technologies and their adoption. Agricultural Research Institutes in Nigeria started during the period of colonial administration (1861 – 1950) and have continued to develop and grow (Idachaba, 1987). The purpose of these institutes was to conduct research in various areas of agriculture to enhance agricultural production and to coordinate research activities in Nigeria as it relates to agriculture. The essence of establishing agricultural research institutions was also to boost agricultural output and thus provide adequate raw materials for industries in Nigeria (Aluko- Olokun, 1999, Barrow, 2002).

According to CTA (2000) the performance of the agricultural sector in the economy of Nigeria is evidently unsatisfactory because of the low level of use of media resources such as information and communication technology among agricultural researchers in Nigeria and ineffective use of print media resources. Agricultural researchers have limited access to media resources, sharing of information among relevant user populations through networks is hardly practised; thus the infrastructure of agricultural information provision to user populations are lacking. According to Aguolu and Aguolu (2002), resources may be available and even identified as relevant to one's subject area, but the user may not be able to use them. The researcher may identify citations in indexes, but may not use media resources containing the relevant articles. Efficient media resources availability and utilisation would promote agricultural researchers productivity by facilitating faster, higher quality decision making. Media resources utilisation is relevant to publication output because it has positive effect on its distribution and dissemination patterns which would in turn correlate with the productivity of researchers.

Allen (1968) and Rosenberg (1967) opined that Agricultural researchers tend to use media resources that require the least effort to access. According to Kuhlthau (1991) seeking of information by researchers depends on the needs, the perceived availability, resources, and information seeking habits of the users. Hence, the need to promote media resources in all formats so as to facilitate the utilisation. Aguolu and Aguolu (2002) noted that availability of a media resource does not necessarily imply its use because media resources may be available but access to it is prevented for one reason or the other which in turn affects utilisation.

Aguolu and Aguolu (2002) attributed insufficient media resources to the steady proliferation of universities and research institutions along with the increase in academic and research programmes. They identified obstacles to the development of adequate media resources. Dike (1992) in her research findings established that non-availability of current media resources like books and periodicals has led some users not to use media resources in the library. Marama and Ogunrombi (1996) confirmed that some of these media resources like LANTEEAL, DVD, and Laptops are unavailable in some Nigerian universities and research institutions, which had a negative effect on the use of media resources in the institutions. However the authors recommended that at least 5 percent of the institutes budget be set aside for media resources.

Oyediran-Tidings (2004) investigated information needs of library users at the Yaba College of Technology, Lagos, and observed low use of the library by the users which was ascribed to the non-availability of desired media resources. According to Alhassan and Afolabi (2012), there are agricultural science databases such as Access to Global Online Research in Agriculture (AGORA), Agricultural Online Access (AGRICOLA), and Agricultural Information System (AGRIS), that provide current research information for researchers across the globe. Furthermore, the facilities offered by www, e-mail, and the file transfer protocol could be explored by agricultural researchers to improve their research findings. Fourie and Bothma (2006) observed the increased use of the World Wide Web in private, social, business lives of many people such as agricultural researchers and hence, noted that it is a vital component of the enabling structure for research institutions, university, career and other use for information and communication. Magara, (2002) opines that CD-ROM and online retrieval services were the most utilized electronic resources in Uganda. The availability of the Internet in that country enhanced communication and resource sharing among the communities.

Tiamiyu, (2005) reported the availability and use of OPACs in University of Agriculture Abeokuta. Okpala and Igbeka, (2004) posits that, since the 1995 introduction and availability of CD-ROM literature search into the University of Ibadan library system, the number of users of the CD-ROM facility was small to the number of registered library users. This, according to them might be a result of lack of current awareness or dissatisfaction of users owing to low information literacy skill. Jagboro, (2003) in his study on Internet use at Obafemi Awolowo University, Ife (OAU), revealed that Internet access was provided to students and staff who do not have access in their various

offices. Also, Sanni, and Idiodi, (2004) affirmed those residential quarters at University of Benin were being networked for Internet access. They added that there is a cybercafé where staff and students can have access to the Internet. Likewise, their library collection can be accessed through the Online Public Access Catalogue (OPAC). Egberongbe, (2011) asserts that there are e-resources in the Library University of Lagos and that respondents in the study had become familiar with e-resources and accessed maximum relevant materials from e-journals for research purposes. Ojokoh, (2005) argues that Internet access was provided to the Federal University of Technology Akure community through the university cybercafé. None of the respondents in his research work used e-mail to communicate with lecturers. Oduwole, (2005) reports on the increasing number of universities connected to the Internet but he asserts that the services were plagued with problems ranging from limited number of work stations, inadequate help support services, queues, space problems and lack of proper co-ordination.

Savery (1996) found that satisfaction with intrinsic satisfiers/motivators was the most important to determining both employee performance and the likelihood of leaving the organization. (Naidu, Rajput and Motiyani, 2007). Speed of availability and the ease of accessibility of information cause the users to use electronic resources more frequently. 49% of respondents are marginally satisfied with online services provided by the library. Edward et al. (1995) studied the impact of electronic libraries on the job performance and satisfaction of researchers. The results showed that many researchers agreed with the use of media resources because improved their performance on the job and provide job satisfaction. They also broadly agreed that media resources bring efficiency in their work. McMurtrey, Grover, Teng and Lightner (2002) surveyed the job satisfaction of IT

workers in a Computer Aided Software Engineering (CASE) environment and found that personnel with predominantly technical career orientation had more job satisfaction than those with predominant managerial orientation. The study suggests that combating IT personnel shortage through task automation may also increase workers satisfaction and reduce turnover. According to Elisio (1995) as cited by Okorie (2010), use of media resources such as TEEAL have a profound effect on the agricultural research system. It provides access to the world's most important scientific literature.

#### Research Methodology

The research design that was adopted for this study is a descriptive survey research design of the correlational type. The independent variables in this study were media resources utilisation and media resources availability while the dependent variable is job satisfaction.

The population of this study consisted all researchers in Agricultural Research Institutes (ARI) in Southwestern Nigeria. These agricultural research institutes have either their headquarters or sub-stations located in this region. As at the time of writing this study), there were eight agricultural research institutes in Southwestern Nigeria comprising five headquarters and three substations. The headquarters of the Research Institutes were purposively selected for this study because the substations lacked the provision of media resources for the use of agricultural researchers. The researchers were chosen using the total enumeration of researchers in headquarters. The sample size comprises four hundred and sixty two (462) researchers in the institutes under study (Table 1). The study was carried out in between February 2013 and September 2013. Eight months were used to carry out the study. The research instruments used for the collection of data were questionnaire and interview schedule.

Table 1: Agricultural Research Institutes selected for the study

S/N	Research Institutes	Number of Researchers
1	Cocoa Research Institute of Nigeria (CRIN), Ibadan.	75
2	Forestry Research Institutes of Nigeria (FRIN), Ibadan.	115
3	Institute of Agricultural Research and Training (IAR&T), Ibadan.	92
4	National Institute of Horticultural Research and Training (NIHORT), Ibadan.	100
5	Nigeria Institute of Oceanography and Marine Research (NIOMR), Lagos.	80
	Total	462

Source: Individual website of Research Institutes, 2013.

A total of 462 copies of questionnaire was administered to the researchers, 334 usable copies were collected and analysed making 72.3% return rate as shown in Table 2.

Table 2: Administration and retrieval of questionnaires

S/N	Research Institutes	Year of Establishment	Number of Questionnaire administered	Number of Questionnaire retrieved
1	Cocoa Research Institute of Nigeria (CRIN), Ibadan.	1964	75	54
2	Forestry Research Institutes of Nigeria (FRIN), Ibadan.	1975	115	115
3	Institute of Agricultural Research and Training (IAR&T), Ibadan.	1975	92	64
4	National Institute of Horticultural Research and Training (NIHORT), Ibadan.	1975	100	49
5	Nigeria Institute of Oceanography and Marine Research (NIOMR), Lagos.	1975	80	52
	Total		462	334

Source: Field work, 2013

The research questions were analysed using descriptive statistics of frequency counts, percentages, means and standard deviation, while the hypothesis were tested with Pearson product moment correlation and multiple regression analysis.

### Results and Discussion

RQ1: What are the types of media resources available for use in agricultural research institutes?

The result as shown in Table3 revealed that the most available print resources were newspapers ( $\bar{x}=2.96$ ), journals ( $\bar{x}=2.77$ ) and conference proceedings ( $\bar{x}=2.72$ ) whereas, posters ( $\bar{x}= 1.97$ ) were rarely available. On electronic media, E-mail ( $\bar{x}= 2.32$ ) and the Internet ( $\bar{x}= 2.31$ ) were mainly available although Ipad ( $\bar{x}= 1.51$ ) was scarcely available. AGORA ( $\bar{x}= 1.54$ ), LanTEEAL ( $\bar{x}= 1.28$ ) and FAO publications were agricultural databases which were often available for use by agricultural researchers but TROPAC ( $\bar{x}= 0.97$ ) was almost not available This is in line with Popoola (2008) who reported that journal top the list of the major source of information in the academia and research Institutes in Nigeria. Asemi (2005), Rajput and Motiyani (2007) as cited by Egberongbe (2011) reported that researchers use electronic resources such as internet and e-mail.

Table 3: Media resources available for use of agricultural researchers

Print Resources	4	3	2	1.	0	Mean	S.D
Newspapers	148 44.3%	80 24.0%	63 18.9%	32 9.6%	11 3.3%	2.96	1.15
Journals	126 37.7%	77 23.1%	71 21.3%	48 14.4%	12 3.6%	2.77	1.20
Conference Proceedings	110 32.9%	95 28.4%	74 22.2%	35 10.5%	20 6.0%	2.72	1.20
Textbooks	82 24.6%	110 32.9%	88 26.3%	41 12.3%	13 3.9%	2.62	1.10
Newsletters	93 27.8%	94 28.1%	79 23.7%	50 15.0%	18 5.4%	2.58	1.19
Theses and Dissertation	98 29.3%	84 25.1%	81 24.3%	46 13.8%	25 7.5%	2.55	1.25
Book of Abstracts	76 22.8%	97 29.0%	89 26.6%	57 17.1%	15 4.5%	2.49	1.15
Encyclopedia and Dictionary	78 23.4%	84 25.1%	92 27.5%	59 17.7%	21 6.3%	2.42	1.20
Bulletins	43 12.9%	107 32.0%	90 26.9%	71 21.3%	23 6.9%	2.23	1.13
Posters	33 9.9%	93 27.8%	81 24.3%	86 25.7%	41 12.3%	1.97	1.19

Key: Very highly available = 4      Highly available = 3      Moderately available = 2  
Fairly available = 1      Not available = 0



Table 3: Media resources available for use of agricultural researchers con't

<b>Electronic Media Resources</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>Mean</b>	<b>S.D.</b>
Electronic Mail	76 22.8%	97 29.0%	67 20.1%	46 13.8%	48 14.4%	2.32	1.35
Internet	71 21.3%	107 32.0%	57 17.1%	52 15.6%	47 14.1%	2.31	1.34
E-books	80 24.0%	63 18.9%	72 21.6%	54 16.2%	65 19.5%	2.12	1.44
E-journals	64 19.2%	79 23.7%	46 13.8%	95 28.4%	50 15.0%	2.04	1.37
E-theses	43 12.9%	100 29.9%	70 21.0%	64 19.2%	57 17.1%	2.02	1.30
E-conference proceedings	59 17.7%	71 21.3%	72 21.6%	81 24.3%	51 15.3%	2.02	1.33
E-newspapers	41 12.3%	102 30.5%	57 17.1%	65 19.5%	69 20.7%	1.94	1.35
Teleconferencing	54 16.2%	77 23.1%	68 20.4%	58 17.4%	77 23.1%	1.92	1.40
Ipad	32 9.6%	50 15.0%	79 23.7%	70 21.0%	103 30.8%	1.51	1.32

<b>Agricultural Databases</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1.</b>	<b>0</b>	<b>Mean</b>	<b>S.D</b>
AGORA	29 8.7%	49 14.7%	76 22.8%	99 29.6%	81 24.3%	1.54	1.25
LanTEEAL	19 5.7%	37 11.1%	75 22.5%	90 26.9%	113 33.8%	1.28	1.20
FAO publications	14 4.2%	34 10.2%	88 26.3%	88 26.3%	110 32.9%	1.26	1.15
CAB Abstract	16 4.8%	36 10.8%	53 15.9%	106 31.7%	123 36.8%	1.15	1.17
PROTA	17 5.1%	24 7.2%	54 16.2%	130 38.9%	109 32.6%	1.13	1.10
HINARI	10 3.0%	32 9.6%	60 18.0%	102 30.5%	130 38.9%	1.07	1.10
AGRICOLA	9 2.7%	27 8.1%	63 18.9%	111 33.2%	124 37.1%	1.06	1.06
CARIS	9 2.7%	17 5.1%	84 25.1%	96 28.7%	128 38.3%	1.05	1.04
AGRIS	13 3.9%	12 3.6%	69 20.7%	112 33.5%	128 38.3%	1.01	1.04
TROPAC	6 1.8%	12 3.6%	74 22.2%	115 34.4%	127 38.0%	.97	.95

Key: Very highly available = 4      Highly available = 3      Moderately available = 2  
Fairly available = 1      Not available = 0

RQ2: What are the most preference media resources used by researchers in agricultural research institute?

The results of the findings revealed that journals ( $\bar{x}=3.19$ ) and textbooks ( $\bar{x}=2.88$ ) were the favourite among print resources while posters ( $\bar{x}=1.71$ ) was least preferred. Electronic resources like the internet ( $\bar{x}=3.28$ ), electronic mail ( $\bar{x}=3.11$ ) were mostly preferred among electronic resources by agricultural researchers whereas E-newspapers ( $\bar{x}=2.69$ ) was the least preferred. Lastly, agricultural databases like AGORA ( $\bar{x}=2.20$ ), FAO publications ( $\bar{x}=2.08$ ), OARE ( $\bar{x}=1.96$ ) and CAB Abstract ( $\bar{x}=1.90$ ) were preferred to TROPAC ( $\bar{x}=1.51$ ) by agricultural researchers. This agreed with the study carried out by Zawai and Majid (2001), Swain, and Panda, (2009) that researchers prefer using journals, theses, dissertations and some other online databases for their research work.

**Table 4a: Degree of preference of media resources by Researchers**

<b>Print Resources</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>Mean</b>	<b>S.D</b>
Journals	186 55.7%	76 22.8%	33 9.9%	26 7.8%	13 3.9%	3.19	1.13
Textbooks	118 35.3%	117 35.0%	56 16.8%	27 8.1%	16 4.8%	2.88	1.12
Theses and Dissertation	116 34.7%	116 34.7%	50 15.0%	35 10.5%	17 5.1%	2.84	1.16
Conference Proceedings	112 33.5%	129 38.6%	34 10.2%	41 12.3%	18 5.4%	2.83	1.18
Book of Abstracts	80 24.0%	105 31.4%	73 21.9%	56 16.8%	20 6.0%	2.51	1.19
Encyclopedia and Dictionary	70 21.0%	82 24.6%	92 27.5%	63 18.9%	27 8.1%	2.31	1.23
Newsletters	51 15.3%	94 28.1%	121 36.2%	39 11.7%	29 8.7%	2.30	1.13
Bulletin	30 9.0%	50 15.0%	94 28.1%	114 34.1%	46 13.8%	1.71	1.15
Posters	40 12.0%	44 13.2%	88 26.3%	102 30.5%	60 18.0%	1.71	1.25

**Table 4b: Degree of preference of media resources by Researchers cont.**

<b>Electronic Media Resources</b>							
Internet	205 61.4%	69 20.7%	21 6.3%	25 7.5%	14 4.2%	3.28	1.13
Electronic mail	193 57.8%	59 17.7%	30 9.0%	31 9.3%	21 6.3%	3.11	1.26
E-journals	154 46.1%	65 19.5%	51 15.3%	42 12.6%	22 6.6%	2.86	1.30
E-books	157 47.0%	61 18.3%	47 14.1%	42 12.6%	27 8.1%	2.84	1.35
E-theses	126 37.7%	80 24.0%	61 18.3%	42 12.6%	25 7.5%	2.72	1.29
E-conference proceedings	141 42.2%	62 18.6%	57 17.1%	46 13.8%	28 8.4%	2.72	1.35
E-newspapers	118 35.3%	88 26.3%	58 17.4%	47 14.1%	23 6.9%	2.69	1.27

<b>Agricultural Databases</b>							
AGORA	88 26.3%	52 15.6%	84 25.1%	58 17.4%	52 15.6%	2.20	1.40
FAO publications	71 21.3%	68 20.4%	72 21.6%	64 19.2%	59 17.7%	2.08	1.40
OARE	76 22.8%	41 12.3%	79 23.7%	68 20.4%	70 21.0%	1.96	1.44
CAB Abstract	68 20.4%	45 13.5%	75 22.5%	78 23.4%	68 20.4%	1.90	1.41
PROTA	68 20.4%	43 12.9%	80 24.0%	71 21.3%	72 21.6%	1.89	1.42
HINARI	53 15.9%	55 16.5%	85 25.4%	73 21.9%	68 20.4%	1.86	1.35
LanTEEAL	54 16.2%	49 14.7%	79 23.7%	85 25.4%	67 20.1%	1.81	1.35
AGRICOLA	55 16.5%	40 12.0%	85 25.4%	74 22.2%	80 24.0%	1.75	1.38
AGRIS	40 12.0%	64 19.2%	72 21.6%	73 21.9%	85 25.4%	1.70	1.35
TROPAC	34 10.2%	38 11.4%	83 24.9%	87 26.0%	92 27.5%	1.51	1.28

Key: Very highly available = 4 Highly available = 3 Moderately available = 2

Fairly available = 1      Not available = 0

Research Question 3: What are the constraints to the use of media resources by researchers in Agricultural Research Institutes?

This section aimed to elicit information on the constraints to media resources utilisation in agricultural research institutes. The result of the finding as shown in figure 1 revealed that poor funding of research institutes (86.8%), irregular electricity supply (81.4%), inadequate media resources (71.3%), infrastructure breakdown (64.4%), poor maintenance of media resources (57.2%) and obsolete equipment (57.2%) were the major constraints to the use of media resources in agricultural research institutes. Others were inadequate access to media resources (54.8%), inadequacy of trained media specialists (46.1%), unfavourable organisational policies (44.0%), poor management (48.5%) and lack of knowledge in the use of some of the existing media resources (28.1%). This finding is in consonance with Fatoki (2004) who stated that poor funding constitutes a major problem against the use of media resources.

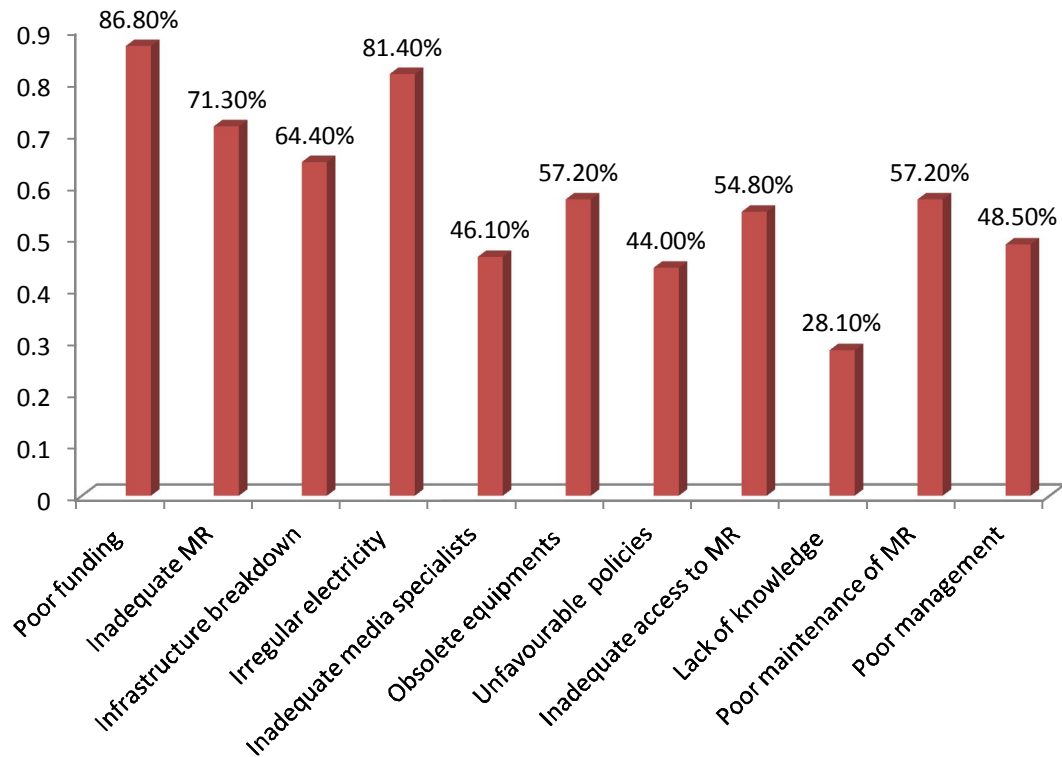


Figure 1. Constraints to media resources utilization by Agricultural researchers

**Hypotheses 1:** There is no significant relationship between Media Resources Utilisation and Job Satisfaction of researchers in Agricultural Research Institutes in Southwestern Nigeria.

It is shown in Table 5 that there was a positive significant relationship between Media Resources Utilization and Job Satisfaction of researchers in Agricultural Research Institutes in Southwestern Nigeria ( $r = .292^{**}$ ,  $N= 334$ ,  $P < .05$ ). Findings from the study indicated that utilisation of media resources had positive, weak and significant relationship on Job Satisfaction of researchers in Agricultural Research Institutes in Southwest Nigeria ( $r = .292^{**}$ ,  $N= 334$ ,  $P < .01$ ). Therefore the null hypothesis 1 is rejected meaning that without utilisation of media resources in agricultural research institutes, researchers may not be satisfied. This means that as independent variable increases, dependent variable also increases. The more researchers utilise media resources to obtain relevant information for agricultural research, preparation for seminar presentation and communication purposes, the more their satisfaction on the job. This agreed with the work of Ajayi (2001), Ogunsola (2004) and Oduwole (2005), who perceived that utilisation of media resources as necessary tools that increase job satisfaction of researchers. The findings of this research was also corroborated by Edward et al. (1995) who studied the impact of electronic resources from libraries on the job

performance and satisfaction of researchers and reported that many researchers agreed with the use of media resources because it reduced their workload and brings satisfaction on the job.

**Table 5: Relationship between media resources utilisation and job satisfaction**

Variables	Mean	Std. Dev.	N	R	P	Remark
Job Satisfaction	154.0719	36.9514	334	.292**	.000	Sig.
Media Resources Utilization	119.6976	35.0930				

\*\* 0.05 level of Sig.

### Hypotheses 2:

There is no significant relationship between Media Resources Availability and Job satisfaction of researchers in Agricultural Research Institutes in Southwestern Nigeria.

It is shown in Table 6 that there was a positive significant relationship between Job Satisfaction and Media Resources Availability of researchers in Agricultural Research Institutes in Southwestern Nigeria ( $r = .266^{**}$ ,  $N = 334$ ,  $P < .01$ ). The null hypothesis 3 was rejected connoting that there was a positive relationship between media resources availability and job satisfaction. It also meant that increase in the availability of media resources, will lead to increase in job satisfaction.

**Table 6: Relationship between media resources availability and job satisfaction**

Variables	Mean	Std. Dev.	N	R	P	Remark
Job Satisfaction	154.0719	36.9514				
Media Resources Availability	87.8563	34.8497	334	.266**	.000	Sig.

\*\* 0.01 level of Sig.

**Hypotheses 3:** There is no joint influence of Media Resources Availability and Media Resources Utilisation on Job Satisfaction of Researchers in Agricultural Research Institutes.

The result in Table 7 revealed that the joint effect of independent variables (Media Resources Availability and Media Resources Utilisation) on Job Satisfaction was significant  $R = .332$ , this shows joint relationship,  $Adj. R^2 = .105$  shows coefficient of determination, ( $F(2,331) = 20.521$ ;  $R^2 = .110$ ;  $P < .05$ ) shows significance. This method of analysis was used to test the joint contribution of the independent variables on the dependent variable that is job satisfaction. It was shown from the finding that the independent variables had significant joint influence on job satisfaction. This signifies that both independent variables had a strong bearing on job satisfaction; that is, both were quite pertinent to researchers job satisfaction. The null hypothesis was rejected meaning that utilisation of media resources and availability of media resources had joint significant influence on job satisfaction of agricultural researchers. Therefore, the independent variables had significant joint influence on researchers' job satisfaction.

**Table 7: Regression analysis showing joint influence of media resources availability and media resources utilisation on job satisfaction**

Model	Sum of Squares	DF	Mean Square	F	Sig.
Regression	50159.291	2	25079.646	20.521	.000
Residual	404520.98	331	1222.118		
Total	454680.28	333			

$R = .332$ ,  $R^2 = .110$ ,  $Adj R^2 = .105$

### Conclusion and Recommendations

The study identified media resources that were available and utilised by agricultural researchers, the study also revealed those that were not utilised and those that were under utilised. In comparison with other groups of media resources mentioned in this study, agricultural databases are still the lowest media resources in terms of availability, use and preference. The study had found that media resources availability and media resources utilisation had a significant influence on job satisfaction of agricultural

researchers. This is in line with global literature (Okiki 2013, Oduwole 2005 and Ogunsola 2004). In other words, researchers that use media resources in research will be more satisfied than those who do not. Therefore the result of this study served as eye opener to the management of agricultural research institutes to understand the importance of media resources in research activities and it would also help them to realise the need to allocate more funds for the purchase of media resources; this should be done to enhance availability of media resources for the use of

agricultural researchers and hence, their job satisfaction would be guaranteed.

The result of the finding also revealed that there were constraints to the use of media resources; these were poor funding of research institutes, irregular electricity supply, inadequate media resources, infrastructure breakdown, obsolete equipment, poor maintenance of media resources, inadequate access to media resources, poor management and unfavourable organisational policies.

Finally, from the result generated from the study, media resources are important to the overall success, goals and achievement of agricultural researchers and research institutes at large, once there is awareness on media resources needed by the researchers, management of research institutes should endeavour to provide needed media resources to the institutes libraries and ICT centers in the institutes. Also, for a nation to achieve maximum development, all the available media resources would have to be carefully utilised by agricultural researchers. Based on the findings of this study, the following were recommended:

1. Some media resources such as agricultural databases were lacking in agricultural research institutes; therefore management of agricultural research institutes should allocate more funds for the purchase of media resources.
2. Some media resources that were available were not properly utilized; librarians and media specialists should create more awareness and enlightenment to researchers on the use of those media by organising seminars, workshops and training. This will increase researchers' level of awareness of media resources that are provided in the library as this will enhance their research activities.
3. There should be regular orientation by media specialists and librarians on the available media resources to newly employed researchers.
4. More current journals, conference proceedings, books and other resources should be provided in the institute library for researchers usage.
5. Researchers in agricultural research institutes should endeavour to use media resources regularly in support of their research activities.
6. Library management should organise information literacy programmes for agricultural researchers to improve their information searching and retrieval skills.

#### REFERENCES

1. Adeoye M.O and Popoola S.O. Teaching effectiveness, availability, accessibility and use of library and information resources among

teaching staff of schools of nursing in Osun and Oyo State, Nigeria. *Library Philosophy and Practice* from <http://libr.unl.edu/LPP/adeoye.popoola.htm>. 2011.

2. Aguolu, C.C., and Aguolu, I.E. *Libraries and information management in Nigeria. Maiduguri*: Ed- Liform Services.2002.
3. Aina, L. O and Adedigba, Y.A. The development of agricultural information in Nigeria. *Agricultural Information in Africa* Ibadan: Third World Information Service Limited.1995. p. 83-106.
4. Ajayi, C.O. Information and Communication Technologies: Building capacity in African Universities. *Proceedings of the 10<sup>th</sup> Association of African University general conference* held in Nairobi Kenya.2001. 184p.
5. Alexander, J.A; Liechtenstein, R.O, and Hellmann, E. A causal model of voluntary turnover among nursing personnel in long term psychiatric setting. *Research in Nursing and Health* 1998. 21.5: 415-427.
6. Alhassan J.A and Afolabi F. The use of Information Communication Technology in Agricultural Research in Nigeria Universities. *Pacific Northwest Library Association Quarterly*. 2012. 76.3:1-12.
7. Allen, T.J. Organizational aspects of information flow and technology. *Aslib Proceedings* 1968. 20:433- 454.
8. Aluko-Olokun, I. The Way Forward for Strengthening Research and Development Capacity-Building in Tertiary Institutions and Research Institutes. *Research Capacity Building for Sustainable Development in Nigeria*, Unilag Consult, Lagos Nigeria.1999.
9. Asemi A. Information Searching Habits of Internet Users: A Case Study on the Medical Sciences University of Isfahan (MUI), Iran. Retrieved from <http://www.webology.ir/2005/v2n1/a10.html>. 2005.
10. Barrow, R. O. Research and Development in Nigeria. Evolution, problems challenges and prospects. *Research and Development in Nigeria*, Centre for Management Development, Lagos, Nigeria:2002. 79-97.
11. Bolarin, T.A. Late payment of teachers salary as it affects the quality of education in Lagos state primary schools: A socio-psychological perspective. *Journal of National Association of Education Teachers*. 1993. 6 .1: 11-15.
12. Byerlee, D, Alex, G and Echeverria R.G. The Evolution of Public Research Systems in Developing Countries: Facing New Challenges. *Agricultural Research Policy in an Era of*

- Privatization*, Wallingford. CABI Publishing. 2002. Cambridge Advanced Learner's Dictionary. Cambridge University Press. 2003.
13. Chimanikire, P, Mutandwa E, Gadzirayi C.T. Muzondo N and Mutandwa B. Factors affecting job satisfaction among academic professionals in tertiary institutions in Zimbabwe. *African Journal of Business Management*. 2007. 1.6:166-177.
  14. Cranny, C. J., Smith, P. C., and Stone, E. F. *Job satisfaction: How people feel about their jobs and how it affects their performance*. New York: Lexington Books. 1992.
  15. CTA . Information for Agricultural Development in ACP Countries, *Verwhelmed by All That info Spore*. 2000. number 88: 13.
  16. Davis, K.Y and Newstron J.W. *Comportamiento Humano en el Trabajo*. Mexico:Mcgrawhill. 2003.
  17. Dike, A. Scarcity of tertiary books in Nigeria: A threat to academic excellence and suggestions for action. *Journal of Librarianship and Information Science* 1992. 24.2: 79-85.
  18. Droussiotis, A. The profile of high performing employee in Cyprus. *The Journal of Business in Developing Nations* 2004. 8: 39 – 64.
  19. Edwards, C.E, Day J.M, and Walton, G. IMPACT Project: The Impact on People of Electronic Libraries. *Aslib Proceedings*, 1995: 47.9: 203-208.
  20. Egberongbe H.S. The Use and Impact of Electronic Resources at the University of Lagos. *Library Philosophy and Practice*. Retrieved from <http://digitalcommons.unl.edu/libphilprac>. 2011.
  21. Ehikhamenor, F. A. Information technology in Nigerian banks: The limits of expectations. *Information Technology for Development* 2003. 10.1:13-24.
  22. Ezeala L.O. and Nwalo K.I.N. Users satisfaction with library resources and services in Nigerian agricultural research institutes. *Library Philosophy and Practice*, retrieved from <http://unilib.uni.edu/lpp/Ezeala.pdf>. 2011
  23. Fafunwa, A.B. *New perspective in education*. London: Macmillan Education Limited. 1971.
  24. Fatoki, O. C. Library automation in Nigeria: the Kenneth Dike Library experience, *Lagos Journal of Library and Information Science* 2004.2. 2:111-116.
  25. Filak, V. F. and Sheldon, K. M. Student Psychological Need Satisfaction and College Teacher Course Evaluations. *Educational Psychology* 2003. 23. 3: 235-247.
  26. Fourie, I., and Bothma, T. Addressing the digital divide in teaching information retrieval: a theoretical view on taking students from ICT access to knowledge sharing. *The Electronic Library*, 2006. 24.4:469-489.
  27. Girija, P.R., Shivmurthy, M. and Niranjana, B.S. Job satisfaction and job stress of Agricultural graduates in Karnataka *Journal of Extension*. 1994 5.4: 946-954.
  28. Gloy, G.A., Akridge, J.T. and Whipker, L. D. Sources of information for commercial farms, usefulness of media and personal sources. *International Food and Agric business management review* 2000 3. 245-260.
  29. Goetting, D. Attitudes and job satisfaction in Louisiana library workplaces. *Louisiana Libraries*, 2004. 67.1: 12-17.
  30. Gomex-Hernandez, R., Max, J.E., Kosier, T., Paradiso, S. and Robinson, R.G. Social impairment and depression after traumatic brain injury. *Archives of Physical Medicine and Rehabilitation* 1997. 78.12: 132-136.
  31. Gregorio, L.B. and Sison, J.C. Agricultural Information Provision in Developing Countries, *IAALD Quarterly Bulletin* 1989. 34.1: 7 - 12.
  32. Hanisch, K. The Job Description Index Revisited: Questions about the Question Mark, *Journal of Applied Psychology* 1992. 77. 3: 377-382.
  33. Hellriegel, D., Slocum J. and Woodman R . *Organizational Behavior*, 8th ed., Cincinnati, Ohio: South-Western College Publishing. 1998.
  34. Idachaba, F.S. Priorities for Nigeria Agriculture in the 5th National Development Plan *FACU Occasional Paper No. 1* FACU Ibadan, 1987. p.1.
  35. Ilies, R., and Judge, T. A. Understanding the dynamic relationship between personality, mood, and job satisfaction: A field experience sampling study. *Organizational Behavior and Human Decision Processes*, 2004. 8:1119–1139.
  36. Jagboro, K.O. A study of Internet Usage in Nigerian Universities: A case study of Obafemi Awolowo University, Ile – Ife, Nigeria. Retrieved from [http://Firstmonday.Org/Issues/Issue8\\_2/Jagboro/Index.html](http://Firstmonday.Org/Issues/Issue8_2/Jagboro/Index.html). 2003.
  36. Johnson S and Prijatel P. Magazine Publishing. Contemporary publication group, Lincolnwood. 1999.
  37. Judge, T. A., Hanisch, K. A. and Drankoski, R. D. Human resource management and employee attitudes. *Handbook of human resource management*. Eds. G. R. Ferris, S D. Rosen, and D. T. Barnum. Cambridge, MA: Blackwell Publishers, 1995. 574-596.
  38. Keregero, K.J.B. and Mthupha, D.M. Job satisfaction as perceived by agricultural extension workers in Swaziland, Luyengo. *South African Journal of Agricultural Extension* 1997.26: 12-30.

39. Kuhlthau, C.C. Inside the search process: Information seeking from the user's perspective. *Journal of the American Society for Information Science* 1991.42.5:361-370.
40. Kumar, Shantanu, Uma Sah., Ajay Kumar Sah. Electronic media for agricultural and rural development. *Kurkshetra: a Journal on Rural Development*, 2002. 50.9: 38-42.
41. Lemu A.A. Stress management by library and information science professionals in Nigerian University libraries. *Samaru Journal of Information Studies* 2007. 7.2: 5-11.
42. Luthans, F. 1998. *Organisational Behaviour*. 8th ed. Boston: Irwin McGraw-Hill.
42. Maddox, S.J. Determining effective communication strategies for agricultural organizations to provide agricultural producers the knowledge necessary to promote change and adoption in the 21st century. Thesis .Agric Extension, Agriculture. North Carolina State University. Xiv + 186. 2001.
43. Magara E. Applications of Digital Libraries and Information Technologies in Uganda, *African Journal of Library, Archives and Information Science*, 2002. 12.2 : 145-154.
43. Manjunath B.N. and Lakshminarayann M.T. Training needs of field extension functionaries. *Maharashtra Journal of Extension Education*, 1997. 16: 356-358.
44. Marama, I.D., and Ogunrombi, S.A. Availability of library and information science collections in Nigerian university libraries. *Library Bulletin: Nigerian University Library System* 1996. 1:2.
45. McMurtney, M.E., Grover V.Teng, J.T. and Lightner, N.J. Job satisfaction of information technology workers: The impact of career orientation and task automation in a CASE environment. *Journal of Management Information Systems*. 19.2: 273-302. Retrieved from <http://mesharpemetapress.com/app/home/linking.asp?referrer=linking and target>. 2002.
46. Menasihal S.K. A study on job satisfaction of Agricultural Assistants working under NAEP in Karnataka state. *Thesis*, Agriculture Extension. University of Agricultural Sciences, Dharwad. XIII+180. 1992.
47. Mills, S.H. *Stress Management for Teachers: Framework* Press Educational Publishers Ltd. 1990.
48. Naidu, G. H. S, Rajput, P and Motiyani, K. Use of Electronic Resources and services in University Libraries: A study of DAVV Central Library, Indore, In: *NACLIN* 309 – 319. 2007.
49. Nwagwu, C.C. The environment of crisis in the Nigerian education system. *Journal of Comparative Education* 1997.33.1: 87-95.
50. Oduwole, A. A. Impact of Internet Use of Agricultural Research Outputs in Nigerian Universities of Agriculture: *Library Hi Tech News*, 2004. 21.6.
51. Oduwole A.A. Information technology application to cataloguing in Nigeria University libraries. *Electronic library*.2005. 23.3:289-294.
52. Ogunsola. L.A. Nigerian University Libraries and the challenges of globalization: The way forward. *Electronic Journal of Academic Librarianship* 2004. 5.2: 2-3.
53. Ojokoh B.A. and Asaolu M.F. Studies On Internet Access And Usage By Students Of The Federal University Of Technology, Akure, Nigeria. *African Journal of Library, Archives And Information Science* 2005. 5.2: 149-153.
54. Okiki O.C. Availability of information resources for research output: perception of academic staff members in Nigerian federal Universities. *International Journal of Computer Science and Telecommunications* 2013. 4. 8: 26-33.
55. Okorie, C.N. Utilisation of automated electronic information services: A case study at the University of Agriculture library, Abeokuta, Nigeria. *Chinese Librarianship: an International Electronic Journal*, 2010. 29. URL: <http://www.iclc.us/cliej/cl29okorie>.
56. Okpala A.E and Igbeka J.U. Analysis of users' searches of CD-ROM databases . *The electronic library*,2005. 23.3: 362-368.
57. Oladele O.I Information Sources Use Patterns among Agricultural Researchers in South Western Nigeria. *Journal of International Social Research*, 2010. 3.12: 322-326.
58. Ostroff, C. The Relationship between Satisfaction, Attitudes, and Performance: An Organizational Level Analysis, *Journal of Applied Psychology* 77.6: 963-974. Oyediran-Tidings, S. 2004. Information needs and seeking behavior of library users: Results from Yaba College of Technology, Lagos. *Lagos Journal of Library and Information Science* 1992. 2.2:77-88.
59. Oyediran-Tidings, S. Information needs and seeking behavior of library users: Results from Yaba College of Technology, Lagos. *Lagos Journal of Library and Information Science* 2004. 2.2:77-88.
60. Popoola S.O. The use of information sources and services and its effect on the research output of social scientists in Nigerian universities. *Library Philosophy and Practice*. Retrieved from <http://libr.unl.edu/LPP/popoola.html>. 2008.

61. Rajput P and Motiyani K . Use of Electronic Resources and Services in University Libraries: A Study of DAVV Central Library, Indore 2007: 309- 319.
62. Rivera R. How productive are academic researchers in agriculture-related sciences. The Mexican case. Retrieved from <http://www.merit.unu.edu>.2009.
63. Robbins, S. P. *Organizational Behavior*, 10th ed., Upper Saddle River, New Jersey: Prentice-Hall, Inc. 2003.
64. Rosenberg, V. Factors affecting the preferences of industrial personnel for information gathering methods. *Information Storage and Retrieval Journal*1967. 3:199-129.
65. Sanni, A. G., and Idioidi, E. A. Library computerization at the University of Benin, Nigeria. *African Journal of Library, Archives and Information Science* 2004. 14.1: 65-76.
66. Sathe N.A, Grady J.L and Giuse N.B. Print versus electronic journals: a preliminary investigation into the effect of journal format on research processes. *Journal of Medical Library Association* 2002: 90.2: 235-243.
67. Savery, J.R. Fostering Student Ownership for Learning. Thesis. Educational Technology. Education. Indiana University, Bloomington. Xiv + 180. 1996.
68. Singh, K.P. Information Use, Satisfaction and Difficulties: A Case Study of Agricultural Scientists in India. *Library Philosophy and Practice*, retrieved from <http://unilib.uni.edu/lpp/Singh.pdf>. 2012.
69. Skibba J.S. Personality and job satisfaction: an investigation of central wisconsin fire fighters. Dissertation, Social science. Applied Psychology. University of Winsconsin-stout. X + 107. 2002.
70. Smith, P. C. In pursuit of happiness: Why study general job satisfaction. *Job satisfaction: How people feel about their jobs and how it affects their performance*. New York: Lexington Books. 1992. 5-19.
71. Spector, P. E. *Job satisfaction: Application, assessment, causes, and consequences*. Thousand Oaks, CA: Sage publication. 1997.
72. Spielberger, C. D., and Reheiser, E. C. Measuring occupational stress: The Job Stress Survey. *Occupational Stress: A Handbook*.1995. 51–69.
73. Swain, D.K. and Panda, K.C. Use of electronic resources in business school libraries of an Indian state: A study of librarians' opinion. *The electronic Library*,2009. 27.1: 74 -85.
74. Tella, A, Ayeni C.O. and Popoola S.O. Work Motivation, Job Satisfaction, and Organisational Commitment of Library Personnel in Academic and Research Libraries in Oyo State, Nigeria. *Library Philosophy and Practice* retrieved from <http://unllib.unl.edu/LPP/tella2.pdf>.2007.
75. The World Book Encyclopedia. World book, Chicago, United State of America.2008.
76. Tihamiyu, M. Prospects of Nigerian Book Publishing in the Electronic Age. *Issues in Book Publishing in Nigeria: Essays in honour of Aigboje Higo at 70*. Ibadan: Heinemann Educational Books. 2005.
77. Webster's Dictionary. Retrieved from <http://www.websters-online-dictionary.org/definitions/Job+Satisfaction>. 2005.
78. Weiss, H.M. Deconstructing job satisfaction: separating evaluation, beliefs and affective experiences, *Human Research Management*. Review. 12:173-194. 2002.
79. Zawai S and Majid S. The information needs and seeking behaviour of the IMR Biomedical scientists, *Malaysian Journal of Library & Information Science* 2001. 5.1: 25-41.

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