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Winter 5-20-2019

# Awareness, Accessibility and Factors Hindering Utilization E-Journals at The Institute of Finance Management, Tanzania

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Mubofu, Christian Michael, "Awareness, Accessibility and Factors Hindering Utilization E-Journals at The Institute of Finance Management, Tanzania" (2019). *Library Philosophy and Practice (e-journal)*. 2980.  
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# **Awareness, Accessibility and Factors Hindering Utilization of E-Journals at The Institute of Finance Management, Tanzania**

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## **Abstract**

*This study focused on the awareness, accessibility and factors hindering the utilization of e-journals at the Institute of Finance Management. Specifically the study sought to identify the level of awareness, accessibility and factors affecting students and academic staff in utilizing the e-journals. To achieve these objectives the study employed mixed method research designs in which in-depth interviews and questionnaire were used to collect data from a sample of 141 respondents i.e. 100 students and 41 academic staff. The surveyed data has been analysed by using SPSS (20.0) and content analysis for quantitative and qualitative data has been undertaken respectively. Table presentations have been made by using MS word. The study established that the level of awareness of e-journal is high among both students and academic staff. Moreover, the study findings revealed that access to e-journals is mainly through common search engines such as Google, Yahoo and Mamma. Furthermore, the results revealed that the factors hindering students in utilizing electronic journals include: slow internet speed, unreliable power supply, and inadequate computer skills, inadequate number of computers in the library and complexity of database interface. The findings also revealed that academic staffs were hindered by the following factors: high printing cost, inadequate search skills, low internet speed, unstable electrical power supply, unavailability of free full text articles and inadequate number of computers in the library.*

*Keywords: Electronic Journals, Utilization of E-Journals, Awareness, accessibility, computers and Library*

## **Introduction**

In modern world electronic journals are highly being promoted due to the fact that they have captured the attention of most library users including students, researchers, consultants and academic staff in higher learning institutions. This probably is due to the fact that its information content is available 24/7 over the internet and that the user just need to have internet for them to access, retrieve and use it. Pandurangaswamy and Kishore (2013) posited that library users do not have enough time to browse the pages of printed materials and this fact induces users to increase their use of electronic journals to meet information needs. Academic libraries have the responsibility of providing a wide range of resources including electronic journals institutional repositories, electronic manuscript, electronic books, electronic maps, electronic magazines, electronic thesis, electronic newspapers, electronic research reports and electronic bibliographic

databases to meet the needs of users especially in providing information to students and lecturers for assignments, research, consultancy and teaching (Leong, 2009). Kumar (2008) showed that a lot of information is currently generated, converted and stored in electronic form and these resources require the user to acquire the necessary skills in order to effectively utilize them.

The study conducted by Cesarone (2007) shows that, the number of electronic journals grew throughout the 1980s and have offered a great promise in disseminating scholarly works to various library users such as students and academic staff and simplified access to information seekers, especially by students and academic staff in higher learning institution than before the emergence of electronic journals. However, Ariffi and Bakar (2013) jointly conducted a study on the “Challenges in the usage of e-journals amongst lecturers at a public University” they revealed that lack of regular training among lecturers and students and inadequate internet facilities are some of the factors that lead to underutilization of e-resources. The most likely course of low use of electronic journals by most library users’ in developing countries include language proficiency, information literacy and lack of computer literacy (Kumar, 2008).

The strategies used to promote the electronic journals to users in most of the developed countries include understanding the disciplines taught at the university and deep understating of the courses offered by the university as this influences the utilization of electronic journals (Leong, 2009). The strategies used to promote the e-resources in most academic libraries available in developing countries include the use of exhibitions, notice boards, Posters, Current Awareness Services (CAS), Selective Dissemination of Information (SDI), workshops and seminars (Keefer, 2001). Despite the strategies used to promote the e-resources and several researches being carried out on utilization of library resources still there is underutilization of electronic resources including the electronic journals by students and academic staff.

### Statement of the Problem

Electronic journals in academic society play a central role of providing relevant, timely and accurate information to its stakeholders. Kumar (2008) asserted that electronic journals are becoming more important for the academic society as they improve the sharing of information with a cheaper and rather low cost as compared to print resources such as books and printed journals. In view of this many libraries are currently using significant amount of money for subscribing to electronic journals (Castaldo, 2008). Scholars have conducted the studies on electronic journals usage in universities and come to conclude that, in this electronic environment teaching, learning and research are supported by electronic journal which have emerged as a powerful tool (Sohail & Salauddin 2019).

Despite the significance of electronic journals literature shows that their utilization by students and academic staff in various academic libraries in Tanzania is low and it does not reflect the value for money spent to subscribe them. For instance, Manda, (2005); Gakibayo, (2013); Msagati, (2014); Makgahlela and Bopape, (2014) noted that, while electronic journals have

become crucial tools for learning, research, teaching and consultancy, still most of the scholars, researchers and lecturers are not fully utilizing them. This situation stimulates the need for this study, with the view to investigate the utilization of e-journals by academic staff and students at the Institute of Finance Management.

#### Research Objectives

The purpose of this study was to investigate the awareness, accessibility and factors hindering the utilization of e-journals at the Institute of Finance Management, Dar es Salaam.

#### Specific Objectives

The study was guided by the following specific objectives:

- i. To examine the awareness of e-journals by library clients.
- ii. To find out the ways through which library users access e-journals.
- iii. To identify the factors affecting students and academic staff in the utilization of e-journals.

#### REVIEW OF RELATED LITERATURE

E-journals as one type of electronic resources have become a major resource for research community for their information gathering that can play a significant role in their teaching, research and consultancy services (Okello-Obura & Magara, 2008). Electronic journals are suitable to access and easily usable for academics and research students as they are saved on the cloud. Currently, most of library clients are interested to use internet based journals rather than the printed ones because electronic journals can be accessed, retrieved and used any time 24/7 a day. With electronic journals the problem of being far away from the library has been addressed and now library users can access them anytime and anywhere.

Sohail and Salauddin (2019) jointly conducted a study on the use of e-journals by research scholars and postgraduate students of University of Delhi and Jamia Millia Islamia. The study revealed that the survival of an academic institution largely depends upon the usefulness of its resources and services in relation to the academic society it serves. From Sohail and Salauddin findings it can be observed that e-journals are the most crucial sources of information for the academic and research society at large. It is therefore, important to ensure that electronic resources including the e-journals are well harnessed by the academic libraries and fully utilized by academicians and students in various universities.

In the last two decades, researchers and scholars in Tanzania have had difficulties in accessing published research information in the form of journals, mainly because of budgetary constraints facing academic institutions. Manda (2005) added that, the developments in information and communication technology (ICT) and the use of electronic resources, particularly the internet, in the 21<sup>st</sup> century are expected to advance the flow of information to research and academic communities. Hassan & Frempong (2008) conducted a study on “Access to Electronic journals

and E-Publishing Initiatives in Ghana: successes, challenges and lessons learnt”. The findings indicated the following barriers: lack of long-term access and incomplete volumes when one discontinues subscription and so loses backsets, network dependency. Furthermore, the study by Sohail and Salauddin (2019) revealed that lack of orientation and training among users, blockade of websites and poor IT infrastructure in the library are the major de-motivating factors in the use of e-journals.

Moreover, the findings revealed that in some places the problems of networks has been very common and so far limits sufficient utilization of e-journals, loss of certain attributes of the paper version such as quality of graphics and lack of certain status and standards, lack of awareness of some users about electronic journals , difficult of allocating e-journals in the internet webs contribute to its weaknesses, technological bottlenecks in some countries also contribute to weaknesses of e-journals and perceived lack of prestige by many users contribute to its utilization become very low. Furthermore, the study by Okoye, and Ejikeme, (2010) on “Open Access, Institutional Repositories and Scholarly Publishing: The role of librarians in South East Nigeria” indicated that, inadequate skills to navigate the internet, unstable power supply, unavailability of internet facilities, permanence of open access movement due to unstable financial support, lack of knowledge of the existence of open access journals in the internet are the challenges that hinders the full utilization of e- journals by researchers.

Velmurugan (2013) emphasized that in order for Academic libraries to facilitate subscription of electronic journals so as to ensure high utilization, they should be aware of the issues related to users’ analysis (user study), the speed of the internet connection in the library, provision of easy access, training and orientation to library users and staff. This implies that library staff does not provide adequate services that may lead to students’ awareness, maximum access and utilization of electronic journals in academic libraries, among students.

The study by Omotayo *et al.*, (2010) as cited Manda (2005) on the use of electronic resources in Tanzania by academics indicated that there were low uses, due to inadequate end-user training, slow internet connectivity, and limited access to Personal Computers, poor search skills, and budget cuts. Moreover, the study by Nikam & Pramodini (2007) found that, fund shortage in higher learning institutions is a severe challenge towards subscribing the required number of journals and databases. Moreover, study findings revealed that 99 percent of the users have not had an opportunity to attend training and orientation program. Only one percent of them seem to have attended the training program that leads the unawareness of e-resources. Therefore, many academic libraries in higher learning institutions do not have enough money to subscribe scholarly electronic journals and even pay for membership fees for the consortium in order to get electronic journals for the community t hey are serving to fulfill their information needs. In order for the library users to utilize the available materials such as e-journals that library preserve it is the role of libraries to find better methods that could maximize its accessibility.

## MATERIALS AND METHODS

This study was conducted at the Institute of Finance Management Library (IFM) in Dar es Salaam city centre. The choice IFM based on the availability of electronic resources, presence of skilled personnel in the area of information and communication technology, adequate number of information and communication technology facilities, adequate computer laboratories and availability of subscribed e-journals. The study involved one hundred and forty one (141) students and academic staff. In the course of ensuring that the sample size entails the reasonable proportion of the units from the sampling frame, Boyed *et al.* (1981) cited in Njana (2008) posited that the sampling intensity of 5% should be considered, such that the units representing the population under study should not be less than 30 units.

Following Boyed *et al.* (1981) assumptions, a total of 141 respondents were envisaged to be a standard sample size which could reasonably represent the population in question (Bailey, 2004; Kothari, 2004; Babbie, 2007). Furthermore, Saunders *et al.* (2007) emphasised that a sampling intensity of 30 respondents was regarded as reasonable in social science studies and a statistical analysis using this population size are sufficiently large enough to draw scientific conclusions. For these reasons, the group was considered representative of the population of IFM. The study employed convenient non-probability sampling techniques whereby data were collected from respondents who were conveniently available to participate in this study. Primary data were collected using administered questionnaire and documentary reviews. Finally, Statistical Package and Service Solution (SPSS) version 20 was used to analyze quantitative data while content analysis was used to analyze qualitative data.

## RESULTS AND DISCUSSIONS

### Awareness of the Availability of Library E-Journals

Both students and academic staff were asked to state about their awareness on the availability of e-journals at IFM library. Findings indicated that 40 (97.6%) of the academic staff were aware of the availability of e-journals while only 1 (2.4%) academic staff was not aware. On the other side 78 (78%) students were aware with the availability of e-journals while 22 (22%) students were not aware of the availability of e-journals at IFM library. High level of awareness is probably due to the nature of activities that demands both students and academic staff to search for information from different sources such as books, encyclopedia, news papers and internet for assignments, research proposal and report writing. Academic staff needs information for research, teaching and consultancy services and so they are curious in searching for various information sources and resources. Table 1 shows the summary of findings.

Table 1: Awareness of the Availability of Library E-Journals (N=141)

Variables	Responses			
	Yes		No	
	F	P	F	P
Students	78	78	22	22
Academic Staff	40	97.6	1	2.4

Key: P= Percent F = Frequency

#### Accessibility of E-Journals by Students and Academic Staff

Both Students and academic staff were asked to state the ways they use to access e-journals. Findings shows that the majority 70% of the students' access e-journals through common search engines like Google, Yahoo and Mamma; some use printed journals and very few access subscribed databases, 39% of the students access e-journals through library databases while only 4% of the students access subscribed e-journals. On the other hand findings indicates that 58.5% of the academic staff access e-journals through common search engines, 51.2% use library databases to access e-journals and only 2.4% of the academic staff access subscribed e-journals. The high use of common search engine is probably due to their simplicity in their usage where users are not required to log in or create accounts or use key words for searching the required information (Kumar, 2014). This also may be an indication that most of the students and academic staff lack information search skills. Therefore, there is a need to provide training on information searching or literature search in order to capacitate the library clients to retrieve relevant e-journal articles for their academic use from the available databases and subscribed information sources. Table 2 summarizes the findings.

Table 2: Accessibility of E-Journals by Students and Academic Staff (N=141)

Ways of Accessing of E-Journals	Responses from Students				Responses from Academic Staff			
	Yes		No		Yes		No	
	F	P	F	P	F	P	F	P
From Library E-Journal Databases	39	39	61	61	21	51.2	20	48.8
Through Common Search Engines	70	70	30	30	24	58.5	17	41.5
By Subscription	4	4	96	96	1	2.4	40	97.6

Key: F= Frequency P= Percent

#### Challenges Hindering Students Utilization of E-Journals

Students were asked about factors hindering them in utilization of e-journals. The study intended to know the challenges students face while using e-journals. Findings revealed that 62% of the students indicated that slow internet speed is the major challenge, 61% mentioned lack of computer training is the challenge to them, and 56% said unreliability of electrical power while 41% of students said they lack computer skills. Furthermore, the findings shows that 32% of the students said inadequate computers is a challenge in accessing and utilization of e-journals while

only 12% of them said complexity of database interface is a challenge in the utilization of e-journals as indicated in Table 3.

Table 3: Challenges Hindering Students in Utilization of E-Journals (N=100)

Variables	Responses			
	Yes		No	
	F	P	F	P
Too slow internet	62	62	38	38
Lack of Computer Training	61	61	39	39
Unreliable Power supply	56	56	44	44
Inadequate Computer Skills	41	41	59	59
Inadequate Computers in the library	32	32	68	68
Complexity of database interface	12	12	88	88

Key: F= Frequency P= Percent

*Lack of Computer Training:* Building capacity by providing training to library users is very important in order to boost the utilization of e-journals in any library regardless of type and category of people they serve. The study findings revealed that lack of training is a critical problem that affects students in the full utilization of library e-journals at IFM. The study by Sife (2013) also revealed that lack of computer training, lack of computer infrastructure, lack of full text e-journals and low internets are the major reasons for the underutilization of e-resources”. One of the interviewed students echoed that: “...*There is no regular computer training here at IFM library as a result, and that most of us we do not have knowledge on how to use e-journals. Students suggested that it would be better if the librarians could introduce the short courses that could help them to have knowledge on how to access, evaluate and use the information retrieved from the databases such as TEEAL, ERIC, Research4life and Ebscohost*”

*Inadequacy of Computers in the Library:* The study findings indicated that the inadequacy of computers was a challenge to students on utilizing the available e-journals. It is through computers available in the library students can enjoy the use of subscribed e-resources including e-journals. Most students who join higher learning coming from poor families cannot afford to buy their own computers and so they depend on library computers. The interviewed students had the following say: “... *computers available in the library are not enough compared to the number of students as a result students are required to wait some time until another leave chance or computer, that means we are using first in first out basis under librarian control and we are given only 30 minutes to use those computers the time which is not enough*”. It is therefore, critical for the IFM management to consider purchasing more library computers so that to increase the number of students who could access computers at a time.

Lack of Computer Skills: Findings of this study indicated that lack of computer skills challenged the students on utilizing the available e-journals. Findings of this study are in line with Angello (2010) who noted that lack of computer skills by students in higher learning institutions is a major problem that affects the utilization of e-resources such as e-journals, e-books and e-thesis. This probably is due to the fact that library users at IFM are trained to use and access information from databases only during the orientation period, therefore, if a student missed an orientation s/he will never be taught or learn in this institute.

Slow internet speed: Findings also indicate that 62% of the students revealed that slow internet speed affects them in the utilization of e-journals from the databases. This finding concurs with that of Luambano and Nawe (2004) who jointly conducted a study on “Internet uses by Students of the University of Dare es Salaam” and finally noted that many students in higher learning institutions are not using the e-journals because of the slow internet speed. The speed of internet is normally affected by many factors including low bandwidth and internet infrastructure. Therefore, librarians must pay more attention on technology infrastructure such as cables, routers and encourage the management to purchase more modern computers that are internet friendly.

Complexity of database interface: The study findings also revealed that the complexity of the database interface is the problem that affects students in utilization of e-journals. The study findings revealed that 12% of the students face challenges in accessing and using e-journals due to the fact that most of the databases found at IFM library are not user friendly. Chamberlain and Boyce, (1974) also noted that the most of database interfaces are in still SQL language which was developed many years ago and it has been proven to be very difficult even for trained users. It is the role of librarians and the IFM management to ensure that they select databases that are user friendly especially students who meet these databases for the first time.

Unavailability of electrical power: Findings in table 3 revealed that 56% of the students were affected by unreliability of electrical power at IFM as a result they have been unable to effectively utilize the e-journals from the databases and other subscribed resources. Findings of this study are in line with those of Nunoo (2012); Oyedapo and Ojo (2013) who noted that recurrent power outage is a major challenge that faces the utilization of electronic journals in developing countries. This challenge can only be addressed by having an automatic generator or having a powerful automatic solar power. It is important for the IFM management to consider the need of purchasing them as an alternative electricity power supply.

### **Problems Hindering Utilization of e-journals by Academic Staff**

Academic **staffs were** asked to indicate the problems they come across in utilizing e-journals subscribed by IFM library. Findings show that 87.8% of the academic staff encountered unstable electrical power, 85.4% of the academic staff encounter inadequate computer facilities, 63.4% face low speed of internet, while 46.3% faced lack of search skills. Furthermore 26.8% of the

academic staff indicated that unavailability of full text articles is one of the problems in the utilization of e-journals while only 12.2% mentioned the high cost of printing e-journal articles. Table 4 shows the findings.

Table 4: Challenges Hindering Academic Staff in Utilization of E-Journals (N=41)

Variables	Responses			
	Yes		No	
	F	P	F	P
Unstable of Electrical Power	36	87.8	5	12.2
Inadequate number of Computers in the Library	35	85.4	6	14.6
Low speed of Internet	26	63.4	15	36.6
Inadequate search skills	19	46.3	22	53.7
Unavailability of Full Text Articles	11	26.8	30	73.2
High printing cost	5	12.2	36	87.8

Key: F= Frequency P= Percent

Unstable Electrical Power: Table 4 indicates that a total of 87.8% of academic staff said they face electrical power problem when accessing and using electronic journals when they are within the IFM premises. This is in line with the Mandas's (2005) study findings which revealed that one of the actors leading to poor utilization of electronic resource in most of the libraries in developing countries including Tanzania is unreliable power supply. However, this study finding negates the interview response from the library director who commented that: "...the IFM main campus library has a standby generator incase the electrical power cuts off, at the mean time this is not a problem hindering the utilization of e-journals in our library". It is important therefore, for the standby generator to be automatic in order to immediately address the problem and avoid inconveniencies that may occur due to power outage.

Inadequate of Computers: Furthermore, study findings in Table 4 indicate that 85.4% of the academic staff said inadequate number of computers is the challenges that affect them in using the e-journals and other electronic resources. Kumar and Reddy (2014) jointly conducted a study on "Use of E-Journals by Research Scholars in University Libraries in Andhra Pradesh". Kumar and Reddy revealed that inadequate number of computers in academic libraries challenge the staff on the utilization of electronic resource available in various databases and search engines. One of the interviewed head of periodicals and documentation section was quoted saying:

"...our library has few computers in the computer laboratory, compared to the number of students and academic staff likely to use our computer lab to utilize e-journal databases. This situation discourages and limits our users to utilize our e-journal".

Low Speed of Internet: Moreover, findings in Table 4 show that 63.4% of the academic staff noted that low speed of the internet affects them in the utilization of e-journals from the library databases. These study findings are in-line with those of Gagibayo, Ikoja and Okello (2013) who found that “utilization of e-resources was not only affected by lack of computer skills but also low internet speed”. The interviewed director of library services was quoted as saying: “...*Low speed of the internet is a big problem, especially when downloading articles through the internet*”. As librarian and director of this department I am working hard to ensure that we work together with ICT department to ensure that this problem is addressed as soon as possible this will include having more bandwidth”.

Inadequate Search Skills: The study finding shows that lack of search skills is one of the challenges that various academic staff encounter when searching for relevant information from the library databases. Having Search skills ensures that the library clients retrieve the relevant and reliable information. In this electronic environment, librarians must enable their staff and other clients like students to acquire new skills and capacity to effectively utilize e-resources from the internet. Thus, training library clients will help them be able to evaluate the information sources before using them in their academic works. Oyedabo and Ojo (2013) also noted that among the major challenge that clients face in accessing and the utilization of electronic resources is the lack of searching skills among users. One of the interviewed library staff stated that: “...*Most of us [library staff] we have inadequate information search skills, therefore, this leads to less assistance to academic staff and students on better use of library e- journals*”.

Unavailability of Full Text Articles: Findings in Table 4 further revealed that unavailability of full text based articles is one of the problems in using the available electronic databases at IFM library. Out of 41 academic staff 11 of them said they always get abstracts of articles from the databases and so, they have decided to use Google to address their information needs more quickly. Gakibayo and Okello (2013) noted that library users in academic libraries prefer full text articles, failure to provide the articles in full versions they are likely to affect their information seeking behavior. This situation might have been caused by poor knowledge on how to navigate in various subject based gateways and reliable information databases. It is therefore, imperative for the librarians to re-train themselves so that they can be able to conduct regular training to academic staff and other users on how to retrieve full text articles from the databases. Re-training of library staff is not an end in itself but the expectation is that they will share the knowledge gained to their clients.

High Printing Cost: Findings in table 4 indicate that a small number 12.2% of academic staff were affected by high printing cost. It is important therefore to reduce the cost of printing so that academic staff could access, retrieve and print the electronic resources including articles from various journals for easy use. In area where electricity is not reliable people prefer to use paper based documents but to get a print copy is a bit expensive. This is in line with Afolabi (2007) who asserted that it is cost effective to use online databases as information in print versions.

However, in this study the cost of printing e-journal articles was not a big problem to most of the academic staff probably due to the fact that academic staff are government employees and they earn salary which part of it could be used to address the printing problem.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **CONCLUSIONS**

The study has presented a number of issues on the utilization of electronic journals at The Institute of Finance Management. The first part is about awareness of the availability of library e-journals among the students and academic staff at The Institute of Finance Management. Findings of this study revealed that there is high awareness of the availability of e-journals among the students and academic staff. It is however encouraged that, the more initiatives should be undertaken to ensure that the awareness is 100 percent among the library clients including students and academic staff. The second part is about accessibility of e-journals by students and academic staff. The study concludes that both students and academic staff of IFM access e-journals through common search engines such as yahoo, Google and mamma due to friendliness of their user interfaces and very few of them use subscribed databases. Lastly, the study noted that the e-journals were not frequently used by students due to various factors such as: too slow internet, lack of computer training, unreliable power supply, inadequate computer skills, complexity of database interface and inadequate number of computers in the library. On the other hand academic staff faces the following challenges: Unstable electrical power, high printing cost. Low speed of internet, inadequate search skills, unavailability of full text articles and inadequate number of computers in the library

### **RECOMMENDATIONS**

The following recommendations to facilitate awareness access and address the factors hindering utilization of electronic journals at the Institute of Finance Management: first the awareness of e-journals among students should be increased through information literacy programme. The study also suggests IFM library should conduct orientation at least twice a year to newcomers and regular training workshops to both academic staff and students to ensure that all are involved and becomes aware of what is available in the electronic collection. The study recommends that, since electronic journals are valuable to both academic staff and students, the staff at the IFM library should ensure that the use of modern tools such as website and library guides are to be used for promoting electronic journals rather than users to be informed by their fellow staff or students. In order to improve the utilization of e-journals, the study recommends that the budget should be increased to enable the institution to purchase reasonable number of computers, and the payment for more windows to improve the internet speed. The study also suggests that the library should have automatic standby generators that could solve the problem of unreliable electrical power supply in the library.

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