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RELATIONSHIP BETWEEN FILE TRANSFER PROTOCOLS ASSISTED KNOWLEDGE-SHARING AND ORGANIZATIONAL EFFECTIVENESS

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ABSTRACT: *The study investigated relationship between File Transfer Protocols assisted knowledge-sharing and organizational effectiveness. Two research questions and a hypothesis were designed to guide the study. The population comprised all the medical personnel in the University of PortHarcourt Teaching Hospital, Rivers State. The sample of the study consisted of 80 medical personnel of whom 30 were medical doctors and 50, randomly drawn from the population. The instrument for data collection was a questionnaire code-named Relationship between File-Transfer-Protocol Assisted Knowledge Sharing and Time Wastage Prevention Assessment Questionnaire (RFTPAKSTWPQ). The fool test for the internal consistency of the instrument was conducted using Cronbach aphc statistical. Mean and standard deviation were used to analyzed the results with the aid of z-test. Results revealed that file transfer-protocol-assisted knowledge sharing relates to prevention of time wastage in treating the in-patients in Federal Government-owned hospital in PortHarcourt, Rivers State and no relationship exists between knowledge sharing with the file transfer protocol and knowledge sharing without file-transfer-protocol in preventing time wastage in the in-patients' treatment in Federal Government-owned hospital in PortHarcourt, Rivers State. The study recommend that State and Federal Governments should prioritize FTP-assisted knowledge sharing and integrate it to drive hospital services and hospital leaderships at both federal and state levels and trained should be strengthened in each of FTP-assisted knowledge sharing so that many ignorant ones will appreciate effectiveness associated with sharing information via FTP.*

KEYWORDS: Knowledge Sharing, File Transfer Protocols, Organizational Effectiveness

INTRODUCTION

In this era of economic meltdown, most organizations endeavour to steer away from the trouble waters of ineffectiveness. Ineffectiveness of an organization reflects in what the leadership in such organization is doing wrong with the resources it has, while effectiveness, according to Drucker (2006), means doing the right things, which include taking the right decision, recruiting the right people to perform tasks, making a right placement of the employees, taking the right actions to encourage and strengthen quality of the employees, process, products/ services and structure.

The origin of the word "effective" stems from the Latin word effectīvus, which means creative, productive or effective. It surfaced in Middle English between 1300–1400 A.D (Harper, 2011) Cambridge Dictionary .com defined effectiveness as the ability to be successful and produce the intended results. Effectiveness is the capability of producing a desired result or the ability to produce desired output. When something is deemed effective, it means it has an intended or expected outcome, or produces a deep, vivid impression.

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Drucker (2006) cautioned that the concept of effectiveness must not be used interchangeably with the notion of efficiency. To him, effectiveness means outcome and efficiency means output. However, the similarity is that both concepts are used in measuring organizational performance.

An effective employee produces at a high level, while an efficient employee produces quickly and intelligently. Effectiveness is the level of results from the actions of employees and managers. Employees and managers who demonstrate effectiveness in the workplace help produce high-quality results. Organizational effectiveness is the concept of how effective an organization is in achieving the outcomes the organization intends to produce (Etzioni,1964).

Hence, organizational effectiveness measures how best an organization is able to actualize its set goals. Within the management parlance, organizational effectiveness relates to goal attainment. This implies that while organizational effectiveness looks at the result (outcome), efficiency looks primarily at output. Therefore, an organization is said to be effective if it has achieved its short and long term goals. Going by the attempted definition of the web-based Cambridge Dictionary, there two elements of organizational effectiveness, which are:

a. Being able to be successful, and

b. Being able to produce the intended results.

Effectiveness—driven organization must have the above two elements which are not all that easy to possess. To have a successful organization, the right things must be done and right people must be used to get the required results. The effectiveness of an of an organization and its workforce has a tremendous positive effect on the quality of the organization's products or service, which often dictates the reputation of such an organization as well as the customers'/clients' satisfaction.

Organization is said to be effective if it saves time, reduces cost, costly mistakes, retains quality and forestalls any forms of wastage. From a managerial standpoint, a business is effective if its people are performing their required tasks. The more consistently employees perform tasks properly, the more effective they are. This includes proper use of communication, technology, organizational and individual knowledge, and resources.

Helander (1988) have shown that computer-assisted knowledge-sharing as well as other ICT tools such as transfer protocols can boost organizational effectiveness. Knowledge sharing supports effective communication. Effective communication encourages better understanding, cooperation, coordination and teamwork.

Popular idiom says that knowledge is power. There is no era that ideally reflects this reality more concretely than this period of knowledge economy precipitated by globalization. Knowledge can be defined as the facts of knowing about something, general understanding or familiarity with a subject, place, situation, etc; awareness of a particular fact or situation, a state of having been informed or made aware of something.

Knowledge sharing is an activity through which knowledge (namely, information, skills, or expertise) is exchanged among people, friends, families, communities or organizations (Bukowitz, & Williams, 1999; Serban & Luan, 2002; Hasmath & Hsu (2016).

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Miller & Shamsie (1996) posit that Organizations have recognized that knowledge constitutes a valuable intangible asset for creating and sustaining competitive advantages. Knowledge sharing activities are generally supported by knowledge management systems (Cabrera & Cabrera, 2002). However, technology constitutes only one of the many factors that affect the sharing of knowledge in organizations, such as organizational culture, trust, and incentives. The sharing of knowledge constitutes a major challenge in the field of knowledge management because some employees tend to resist sharing their knowledge with the rest of the organization (*Ciborra & Patriota,1998).*

Knowledge sharing is the process of distributing various categories of information with a view to creating awareness about them or getting familiarized with them. Within knowledge-sharing, there are two systems involved, which are the donor (distributing) systems and recipient (receiving) systems. The donor systems constitute the source from where information or familiarity about persons, things or places is allotted and distributed, while the recipient systems are any systems receiving information from the source. In other words, the donor systems pass a given knowledge or items of knowledge on to the recipient systems, which receive, process and use such knowledge. In a reserved order, the donor systems can assume the position of the recipient systems and vice versa.

On the other hand, protocols are a set of formal rules describing how to transmit or exchange data, especially across a network. File Transfer Protocols (FTP) are a set of electronic devices usually engaged in transporting data for the purpose of transmitting and exchanging them across computer networks, especially the Local Area Network (LAN) or the Wide Area Network (WAN). Local Area Network (LAN) is used to serve a small number of people located in a small geographical space. Peer-to-peer or client server networking methods can be employed.

Wide Area Network (WAN) is formed to connect a computer with its peripheral resources across a large geographical area. Wireless Local Area Network (WLAN) or Wireless Wide Area Network (WWAN) is formed without the use of wires or physical media to connect hosts with the server. The data is transferred over radio transceivers.

A web-based dictionary, Techopedia defined File Transfer Protocol (FTP) as a client/server protocol used for transferring files to or exchanging files with a host computer. It may be authenticated with user names and passwords. Anonymous FTP allows users to access files, programs and other data from the Internet without the need for a user ID or password. Web sites are sometimes designed to allow users to use 'anonymous' or 'guest' as a user ID and an email address for a password. Publicly available flies are often found in a directory called pub and can be easily FTPed to a user's computer. FTP is also the Internet standard for moving or transferring files from one computer to another using TCP or IP networks. TCP/IP, or the Transmission Control Protocol/Internet Protocol, is a suite of communication protocols used to interconnect network devices on the internet. TCP/IP can also be used as a communications protocol in a private network (an intranet or an extranet).

Client/server is a program relationship in which one program (the client) requests a service or resource from another program (the server). Although the client/server model can be used by programs within a single computer, it is a more important concept for networking. In this case, the client establishes a connection to the server over a local area network (LAN) or wide-area network (WAN), such as the Internet

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FTP is also known as RFC 959. RFC stands for request for comments. According to a web-based dictionary, Techopedia, there are various uses for and types of FTP:

a. An FTP site is a web site where users can easily upload or download specific files.

b. FTP by mail allows users without access to the Internet to access and copy files using anonymous FTP by sending an email message to ftpmail@decwrl.com and putting the word help in the body of the text.

c. FTP Explorer is an FTP client based on Windows 95 file manager (Windows 95 Explorer).

d. An FTP server is a dedicated computer which provides an FTP service. This invites hackers and necessitates security hardware or software such as utilizing usernames, passwords and file access control.

e. An FTP client is a computer application which accesses an FTP server. While doing so, users should block incoming FTP connection attempts using passive mode and should check for viruses on all downloaded files.

How Knowledge Sharing is factored into File Transfer Protocol to Generate Effectiveness

Majorly, the main function of file transfer protocols is for the transportation of electronic or digital-oriented data forth and back within the computer system.

File transfer protocols make knowledge sharing very easy, fast, accurate and can protect vital information assets from hackers by means of allowing information to be accessed only through user's password. The computer, the Internet, the web sites, servers, hold various vital and useful knowledge-based information, skills, and expertise, which people, members of an organization can exchange among themselves. Using FTP makes the sharing process of the desiring large set of information, skills, and expertise within a given network coverage easy, quick, cheap, effortless, and accurate. It also creates the opportunity for the accessibility of knowledge anywhere anytime. It helps in circumventing the unfortunate circumstances of costly delay, organizational bureaucratic challenges that usually encourage ineffectiveness. While knowledge sharing is the power from which vital information, skills, expertise are generated; file transfer protocol is the vehicle through which they are conveyed to designated destination (Hasmath& Hsu, (2016).

Knowledge sharing which is on its own effectiveness-boosting strategy in every organization is usually ferried across all networks at a speed of light by file transfer protocols. This however guarantees asynchronous moments and flexible opportunities which system users or organizations can cultivate to enhance effectiveness.

Effectiveness does not occur by way of concocted magic but through a well-articulated management strategy which is embedded in proper selection and usage of the appropriate approaches and technologies. Knowledge sharing constitutes that appropriate approach, while FTP the proper technology.

A wide range of vital information resources being shared or exchanged in a good time fashion among the world population through the internet is possible today because of file transfer protocols (FTP).

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Plethora of studies abound where it has been revealed that organizations which have imbedded IT-powered knowledge sharing is bound to outperform the ones that do not. Hasmath& Hsu, (2016) made a strong assertion in the conclusion of their study when they stated that in this globalized setting of business environment, failure to move with current trends of globalization results in failure in appreciating the reality of today, failure in business and failure in grabing the gains of competitive advantage now and in future. This set of failures render effectiveness in organization useless. Therefore, speaking from the strength of the findings based above, it could be said the worst managerial tragedy is the inability to integrate the business into the largest business context of globalization through knowledge sharing.

No organization in the world today can boast of relying only on the knowledge manufactured within such entity to attain great business success, not even the Microsoft. In a sense of current global best management practices, no single organization can claim the monopoly of knowledge. Therefore, there must be intra and inter knowledge sharing. Intra- knowledge sharing involves sharing of knowledge within an organization, while the inter-knowledge sharing involves sharing of knowledge between organizations. Generally, knowledge sharing touches a wide areas of management interests such as decision making, leadership, business operations, customer/client relations, technologies, business environment and its dynamics, etc. A manager, who is groomed with the culture of knowledge sharing, is equipped to succeed and fly above his peers. The function of the file transfer protocols within the context of knowledge sharing and effectiveness it produces could be found in their ability to grant easy, quick, accurate, cheap information generation and accessibility. This has guaranteed sound quick and decision making, improved leadership, improved human resources management and relations, improved customer/client relations ,improved employee motivation techniques, improved versions of management and business strategies, and helped organizations to overcome so many management challenges.

The Problem

Many people, organizations and leadership mostly in Africa and Nigeria in particularly harvest varieties of information, skills and expertise from the computer network connectivity without the knowledge of what part of the computer system that is fetching the all those resources with which they use in enriching their knowledge, skills and expertise. Such dangerous ignorance deprives them of that required mentality to develop insatiable thirst for maintaining quality ICT context that encourages knowledge sharing, which FTP helps in doing at the cheapest rate of money, time, effort and energy. Their fingers hit button which usually sets the search engine in a speed motion but they are with glaring ignorance of what ferried the information they required across to them. This calls for correction through awareness of which this study is designed to accomplish.

Aim and Objectives of the Study

The aim of this study is to examine how the knowledge sharing via file transfer protocols relates to effectiveness in Federal Government-owned hospital in PortHarcourt, Rivers State. Specifically, the study is designed to achieve the following objectives:

1. To find out the extent file- transfer-protocol-assisted knowledge sharing relates to prevention of time wastage in treating the in-patients in Federal Government-owned hospital in PortHarcourt, Rivers State.

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2. To examine the relationship between knowledge sharing with the file transfer protocol and knowledge sharing without file-transfer-protocol in preventing time wastage in the in-patients treatment in Federal Government-owned hospital in PortHarcourt, Rivers State.

Research Questions

The study was predicated on the following research questions:

1. To what extent does file transfer-protocol-assisted knowledge sharing relate to prevention of time wastage in treating the in-patients in Federal Government-owned hospital in PortHarcourt, Rivers State?

2. What is the relationship between knowledge sharing with the file transfer protocol and knowledge sharing without file-transfer-protocol in preventing time wastage in the in-patients treatment in Federal Government-owned hospital in PortHarcourt, Rivers State?

Research Hypothesis

The study is predicated on the following hypothesis:

1. There is a significant relationship between file-transfer-protocol assisted knowledge sharing and prevention of time wastage in the in-patients treatment in Federal Government-owned hospital in PortHarcourt, Rivers State.

RESEARCH METHODOLOGY

This study was correlational survey. It is so because the study is to be used to ascertain whether or not there is a relationship between the selected variables such as file-transfer-protocol assisted knowledge sharing and prevention of time wastage; the relationship between knowledge sharing with the file transfer protocol and knowledge sharing without file-transfer-protocol in preventing time wastage. The population comprised all the medical doctors and nurses in the University of PortHarcourt Teaching Hospital, Rivers State. The sample of the study consisted of 80 medical personnel of whom 30 were medical doctors and 50 nurses they were randomly drawn from the population. The instrument for data collection was a questionnaire code-named Relationship between File-Transfer-Protocol Assisted Knowledge Sharing and Time Wastage Prevention Assessment Questionnaire (RFTPAKSTWPQ). The instrument had a modified Likert Scale of Strongly Agree (SD), Agree (A), Disagree (D), Strongly Disagree (SD) which was scaled on points of 4, 3, 2, and 1 respectively. The test for the internal consistency of the instrument was conducted using Cronbach statistical of questionnaire administered were well filled, retrieved and used for the study. Mean and standard deviation were used to answer the research questions, while z-test was used to test the hypothesis. To obtain the criterion mean for scoring the questionnaire, the all the points of the Likert-scale were added up and divided by 4, that is, 4+3+2+1/4 = 2.50. Therefore, any calculated mean that is 2.50 and above indicates acceptance and any one below it (2.50) indicates rejection.

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RESULTS

Here, the results emanating from the data collected were analyzed and presented in the tables below.

Research Question One: To what extent does file transfer-protocol-assisted knowledge sharing relate to prevention of time wastage in treating the in-patients in Federal Government-owned hospital in PortHarcourt, Rivers State?

Table1: Summary of Mean and Standard Deviation on the Extent File-Transfer-Protocol-Assisted Knowledge Sharing relates to Prevention of Time Wastage

S/No	Items	Med. Doctors: N=30			Nurses: N=50		
		$\bar{X}$	SD	Remark	$\bar{X}$	SD	Remark
1	I believe that FTP being an IT tool eliminates face-to-face sharing of information on in-patient treatment among medical personnel.	3.57	0.89	Agree	3.77	0.75	Agree
2	I am convinced that referrals are fastest with the use of FTP	3.70	0.90	Agree	3.61	0.86	Agree
3	I believe that exchange of in-patient treatment related ideas and information is done in a quickest fashion with the use of FTP.	3.49	0.92	Agree	3.25	0.85	Agree
4	I think that sharing of information among medical personnel on drugs for treatment is done in a fastest fashion with the use of FTP	3.32	0.85	Agree	3.15	0.91	Agree
5	I believe that FTP aids in generating information which is used in quick decision making.	3.70	0.94	Agree	3.40	0.96	Agree
6.	I believe that FTP provides a platform very fast for sharing information for mentoring young medical personnel.	3.61	0.82	Agree	3.24	0.85	Agree
7.	I like FTP because without it gathering, sending and receiving information in a quick fashion among medical personnel would not have been possible.	3.55	0.91	Agree	3.35	0.94	Agree
	Overall Grand Mean $\bar{X}$ $\bar{X}$	3.56	0.89		**3.40**	**0.87**	

Field Survey, 2018

Table 1 shows that all the item had their weighted mean values above the criterion mean of 2.50.. This result therefore indicates that, file transfer-protocol-assisted knowledge sharing

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relates to prevention of time wastage in treating the in-patients in Federal Government-owned hospital in PortHarcourt, Rivers State. This is further affirmed by the weighted overall mean values for both medical doctors and nurses. While medical doctors had their weighted overall mean value of 2.88 above the criterion mean of 2.50 (i.e., 2.88 > 2.50), the nurses had 1.55 below it (2.50) (i.e., 1.55 < 2.50). Generally, this result reveals that file transfer-protocol-assisted knowledge sharing, to large extent, relates to effectiveness because of its ability to prevent of time wastage in treating the in-patients.

Research Question Two: What is the relationship between knowledge sharing with the file transfer protocol and knowledge sharing without file-transfer-protocol in preventing time wastage in the in-patients' treatment in Federal Government-owned hospital in PortHarcourt, Rivers State?

Table1: Summary of Mean and Standard Deviation Analysis on the Relationship between Knowledge Sharing with the File Transfer Protocol and Knowledge Sharing without File-Transfer Protocol in Preventing Time Wastage in the in- Patients' Treatment

S/No	Items	Med. Doctors :N=30			Nurses: N=50		
		$\bar{X}$	SD	Remark	$\bar{X}$	SD	Remark
1	I think that the Internet-based FTP shares medical related information faster than the paper-based information sharing.	3.82	0.62	Agree	3.69	0.87	Agree
2	I believe that sharing information on emergency-related situations can be done faster with the use of the Internet-based FTP than doing the same with the use of paper or face-to-face means.	3.65	0.94	Agree	3.51	0.77	Agree
3	I am of the view that sharing of medical expertise information about in-patients among the medical personnel can be achieved quicker with the use of the Internet-based FTP than the use of manually-oriented means or face-to-face basis.	3.92	0.57	Agree	3.82	0.60	Agree
4	I think that with the Internet-based FTP information sharing on in-patients' surgery-related cases can be generated faster than doing same on face-to-face basis	3.68	0.73	Agree	3.48	0.88	Agree
5	I believe that handling of referrals is quicker with the use of the Internet-based FTP than	3.93	0.62	Agree	3.85	0.76	Agree

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	doing same on face-to-face and paper basis.						
6.	I believe that the Internet-based FTP handles information sharing on in-patients' drug administration faster than the face-to-face oriented version.	3.56	0.82	Agree	3.19	0.93	Agree
7.	I think that the Internet-based FTP handles information on patients' admission-related far more quickly than the use of face-to-face and paper-based means.	3.67	0.85	Agree	3.24	0.98	Agree
	Overall Mean $\bar{X}$ $\bar{X}$	**3.75**	**0.74**		**3.54**	**0.83**	

Field Survey, 2018

Table 2 reveals that all the items had their calculated mean values above the criterion mean of 2.50. Therefore, this result indicates that the both medical personnel, that is, the medical doctors and nurses overwhelmingly accepted that no relationship exists between knowledge sharing with the file transfer protocol and knowledge sharing without file-transfer-protocol in preventing time wastage in the in-patients' treatment in Federal Government-owned hospital in PortHarcourt, Rivers State. This result was further affirmed by the calculated values of the overall grand mean for both medical doctors and nurses, which were all greater than the criterion mean of 2.50 (i.e, 3.75 & 3.54 > 2.50). This implies that the use of the Internet-based FTP in knowledge sharing is far more effective than the use of either face-to-face or paper means as the former are proven to prevent time wastage in the in-patients' treatment, and the latter does not.

Test of Hypothesis

$H0_1$ There is a significant relationship between file-transfer-protocol assisted knowledge sharing and prevention of time wastage in the in-patients' treatment in Federal Government-owned hospital in PortHarcourt, Rivers State.

Table 3: Z-test Analysis of Relationship between File-Transfer-Protocol Assisted Knowledge Sharing and Prevention of Time Wastage in the in-Patients' Treatment

Variables	N	$\bar{X}$	SD	DF	Z_{cal}	Z_{table}	Level of Sign.	Decision	Remark
Medical Doctors	30	3.75	0.74	78	1.32	1.96	0.05	Accept	Significant Relationship
Nurses	50	3.54	0.83						

Field Survey, 2018

Table 3 shows that z-calculated is 1.32, while z-table is 1.96 at 0.05 level of significance. The degree of freedom is 78. Since z-calculated is less than z-table (i.e., 1.32 < 1.96), the hypothesis is accepted. Therefore, there exists a significant relationship file-transfer-protocol assisted

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knowledge sharing and prevention of time wastage in the in-patients' treatment in PortHarcourt, Rivers State.

DISCUSSION OF THE RESULTS

The results are to be discussed in relation to the data analyzed in the preceding pages. The discussion is to be done on Table-by-Table basis and deductions made where necessary.

Table 1 revealed that file transfer-protocol-assisted knowledge sharing relates to prevention of time wastage in treating the in-patients in Federal Government-owned hospital in PortHarcourt, Rivers State. This vividly suggests that file transfer protocol, being an IT tool, promotes effectiveness in that it eliminates face-to-face sharing of information on in-patient treatment among medical

personnel, makes referrals, exchange of in-patient treatment related ideas and information, and information sharing among medical personnel on drugs for treatment to be generated in a fastest fashion. Others include that FTP aids in generating information which is used in quick decision making, provides a platform very fast for sharing information for mentoring young medical personnel, makes it possible for gathering, sending and receiving information in a quick fashion among medical personnel. This result is in conformity with the study of which found that

In Table 2, the result indicated that no relationship exists between knowledge sharing with the file transfer protocol and knowledge sharing without file-transfer-protocol in preventing time wastage in the in-patients' treatment in Federal Government-owned hospital in PortHarcourt, Rivers State. This result suggests that FTP-assisted knowledge sharing promotes effectiveness, while knowledge sharing without it (FTP) will lead to ineffectiveness. The above results were strongly corroborated by the proposition generated in the test of the hypothesis which revealed that there exists a significant relationship file-transfer-protocol assisted knowledge sharing and prevention of time wastage in the in-patients' treatment in PortHarcourt, Rivers State.

CONCLUSION

Drawing conclusion on the strength of the discussion, the aid of file transfer protocol in knowledge sharing is not sufficiently known to many internet users, particularly medical personnel. As an IT tool, FTP ferries information heavily deposited in the Internet within a split of seconds across to the millions of users. With this, information needs of various categories of the users are met. This results to effectiveness because problems that previously took a lot of time, energy, money and efforts to solve due to very limited information accessibility and flexibility can now be solved with the use of FTP in a fastest time fashion. FTP has put knowledge sharing in a fastest lane where effectiveness is ensured.

RECOMMENDATIONS

State and Federal Governments should prioritize FTP-assisted knowledge sharing and integrate it to drive hospital services.

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Hospital leaderships at both federal and state level should be trained in FTP-assisted knowledge sharing so that many ignorant ones will appreciate effectiveness associated with sharing information via FTP.

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