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Organisational Culture, Interpersonal Trust and Incentives as Predictors of Knowledge Sharing By Healthcare Providers in Gombe State, Nigeria

Esther Abiola Adeyemi and
Sunday Olanrewaju Popoola
Department of Library Archival and Information Studies,
University of Ibadan,
Ibadan, Nigeria.
adequeen77@yahoo.com
drpopoola@gmail.com

Abstract

This study examined the predicting effect of organisational culture, interpersonal trust and incentives on the knowledge sharing of secondary healthcare providers in Gombe State, Nigeria. The total enumeration technique was used because the population of 665 healthcare providers was not so large. A questionnaire designed for this study was administered to the 665 healthcare providers, out of which 467 copies were found valid for analysis, giving a response rate of 70 percent. The results showed that organisational culture, interpersonal trust and incentives had significant correlations with knowledge sharing of the respondents. Also, there was a joint significant predicting effect of organisational culture, interpersonal trust and incentives on the knowledge sharing of the respondents. Furthermore, structured organisational culture, good interpersonal trust and availability of incentives enhanced the knowledge sharing of these healthcare providers. The study therefore recommended that hospital board managers should take cognisance of these to promote knowledge sharing among healthcare providers.

Keywords: Organisational Culture, Interpersonal Trust, Incentives, Knowledge Sharing Healthcare Providers.

Introduction

The secondary healthcare institution is the second level of healthcare delivery in Nigeria. This institution has healthcare providers working at the specialist hospitals, general hospitals and cottage hospitals in Nigeria. The secondary healthcare is the level at which patients from the primary healthcare are referred for further treatment. Unlike the primary and tertiary levels of healthcare, the secondary level of healthcare in Gombe State Nigeria has all categories of healthcare providers. These healthcare providers include: doctors and dentists, nurses and mid-wives, hospital laboratory scientists, hospital laboratory technicians, pharmacists, pharmacists technicians, community health extension workers, community health officers, radiologists and other healthcare providers who assist these.

Workers at the secondary level need to share knowledge, skills, experiences and insights, so that diseases can be prevented and better practices in curative measures shared to help patients. All these secondary healthcare providers depend on knowledge to provide quality services to their patients. This is because the healthcare sector is knowledge-driven. When what is known is not shared among healthcare providers, such knowledge cannot be used to forestall future mistakes by the healthcare providers. Furthermore, there are changes taking place within the healthcare sector that will require knowledge to be constantly shared and updated. Buttressing the need for healthcare providers to share knowledge, WHO (2005) has observed that 'there are knowledge

gaps among and within countries and this can only be bridged by the development of an environment that encourages the creation, sharing and effective application of knowledge to improve health. However, for knowledge to be shared by healthcare providers there are factors that may predict whether knowledge may be shared or not within the various healthcare facilities they work in. Such factors are organisational culture, interpersonal trust and incentives, among others, which this study investigated in the secondary healthcare institutions in Gombe State, Nigeria.

Knowledge sharing, according to Usoro, Sharratt, Tsui and Shekhar (2007), is a process of communication whereby two or more people are involved in the exchange of knowledge. This procedure requires that knowledge be supplied by a source, followed by the interpretation of the knowledge by one or more persons who have received the knowledge. The output of the process is the creation of new knowledge.

One of the factors that may influence knowledge sharing among healthcare providers is organisational culture. It encompasses the commonly held beliefs, attitudes and values of an organisation. It is also the collaborative programming of the mind that distinguishes one group from another (Hofstede, 1980).From studies (Adolfsson and Aneheim, 2016; Andriessen, 2006), it is clear that organisational culture is a major factor that needs to be considered because it may either enhance or hamper knowledge sharing practice. The general culture of an organisation may have influence on knowledge sharing.

Similarly, interpersonal trust is another issue that may influence knowledge sharing. Usoro, Sharratt, Tsui and Shekar (2007), citing Fukuyama (1998), regarded trust as the expectation that arises within a community of regular, honest and cooperative behaviour, based on commonly shared norms on the part of the members of the community.

The importance of interpersonal trust among healthcare providers has been demonstrated in studies such as that of Anatasia (2013) where trust has significant influence on knowledge sharing. The need for interpersonal trust among healthcare providers is important because trust has to do with the confidence one health provider has in other colleagues for knowledge to be freely shared between them.

Incentive is another factor that needs to be considered if knowledge sharing may become a regular practice in any healthcare organisation. Andriessen (2006) pointed out that incentives and rewards denote all things people derive from behaving in a certain way. Therefore, incentive schemes are rewards and recognition which an organisation may offer its employees to enhance the sharing of knowledge.

Statement of the Problem

Gombe is located in the North-Eastern region of Nigeria, within the expansive savannah. According to the report of the Gombe State's Human Resources for Health Policy (2014), Gombe state has few training institutions and is in a disadvantaged position to attract adequate number of critically needed health professionals because of its limited resources. In addition, is the worrisome situation of having poor access to information and knowledge sources. Another problem is that the health sector loses its staff due to brain drain. This is a situation where a significant number of health professionals leave the public service after being trained by the state government. This situation leads to knowledge flight and critical operational knowledge is not shared. Furthermore, formalised knowledge sharing practice is not put in place because of poor knowledge sharing behaviour of the healthcare providers. It is therefore important that the healthcare system in Gombe State, just like any other healthcare system, implements knowledge management practices, strategy and principles to deal with these challenges by being able to tap into the large reserves of healthcare providers' knowledge, experiences and insights.

The objective of this paper was to examine whether organisational culture, interpersonal trust and incentives can predict knowledge sharing by healthcare providers in Gombe State. The specific objective of the study was to find out the relative and composite contributions of organisational culture, interpersonal trust and incentives to the prediction of knowledge sharing by the healthcare providers in Gombe State. The study answered specific research question and hypothesis.

The research question was: What is the relative contribution of organisational culture, interpersonal

trust and incentives to the prediction of knowledge sharing by the healthcare providers in the secondary healthcare institutions in Gombe State? The only research hypothesis for the study was:

H_o: Organisational culture, interpersonal trust and incentives will not jointly predict knowledge sharing of the healthcare providers in the healthcare institutions in Gombe State.

Literature Review

Organisational culture, interpersonal trust and incentives are factors that are important to consider for the explanation of knowledge sharing among healthcare providers. Sibte and Abidi (2007) noted the complexity of the dynamics of knowledge sharing, involving an active interplay of determinants such as culture, community, incentives, medium, context and needs. Therefore, the organisational culture obtainable in one place may positively or negatively influence the sharing of knowledge. For instance, the result of the study of Adolfsson and Aneheim (2016) identified organisational culture as seen to be supporting continuous sharing of knowledge among workers in two psychiatric healthcare organisations in Sweden.

Bamgboje-Ayodele and Ellis (2015) research findings revealed that the hierarchical nature of the Nigerian society supported central decision making thus influencing knowledge management practices in Nigerian organisations. Al-Alawi, Al-Marzooqi and Mohammed (2007) found out that factors like organisational culture, interpersonal trust, rewards among others contribute to knowledge sharing. Other studies like that of Karthiravelu, Mansor, Ramayah and Idris (2014) as well as Yong-Mi (2011) established that knowledge sharing practices are influenced by institutional structures. Further studies by Stock, Mcfadden and Gowen (2017) have shown that organisational culture is related to the effective sharing of knowledge.

Borum (2010) noted that interpersonal trust is a willingness to accept weakness or risk based on the expectations of another person's behaviour, a very important concept of human behaviour, which affects our interactions with opponents and competitors, as well as with allies and friends. It can be argued that interpersonal trust is partly responsible for pressuring competitors to become allies or, if betrayed, enemies.

Lee and Osong's (2014) study established that reciprocity, behavioural control and trust were factors that affected hospital employees' knowledge sharing intention, knowledge behaviour and innovation behaviour. Anatasia's (2013) investigation also revealed that there was significant evidence regarding the significance of trust in the clinics and its development based on knowledge sharing among healthcare providers there in the private clinics in Greece. Other studies such as:Wei-Li, Bi-Fen, Chien-HsinandRyh-Song (2009);Ding, Atsushi and Choi (2018) supported these studies.

In knowledge sharing people desire to recover something for what they have contributed as a cost, for example, time, energy, potential loss of ownership and power which is referred to as external motivation. Incentives can be divided into tangible and intangible forms. Tangible incentives are things like money, gifts, promotion, and access to information. Less tangible incentives are exemplified in things as enhancement of reputation and public praise. Intangible incentives, however, have lasting more effect than tangible incentives (Andriessen, 2007).

The International Council of Nurses, International Hospital Federation, International Pharmaceutical Federation, World Confederation for Physical Therapy, World Dental Federation and World Medical Association (2008) noted that policy makers and managers within the healthcare system have turned their attention to using incentives to improve the recruitment, motivation and retention of healthcare professionals.

This study was anchored on the reviewed literature which showed that there could be a relationship between knowledge sharing and various factors including organisational culture, interpersonal trust as well as incentives. However, no literature has been able to put the three factors together to predict knowledge sharing in the healthcare system in Nigeria. This is the gap filled by this study.

Research Methodology

The study adopted a descriptive survey research design of the correlational type. The study population comprised all the 665 healthcare providers in the 20 secondary healthcare institutions in Gombe State,

Nigeria. The total enumeration technique was used to cover all the 665 healthcare providers because the population size was not too large.

The questionnaire designed to collect data for this study was tagged: "Organisational Culture, Interpersonal trust, Incentives and Knowledge Sharing (OCITIKSS)". It comprised four parts (A, B, C and D.) The response format is a four point Likert scale: 4=strongly agree, 3=agree, 2=disagree and 1=strongly disagree. These were adapted from Usoro (2007), Cameron (1986) and Lin (2006) respectively.

In addition, a pre-test was carried out on 30 healthcare providers to validate the reliability of the questionnaire. Cronbach-Alpha was used to determine the reliability coefficient. The questionnaire had a high reliability since the reliability coefficients were all above 0.70. Data collected from the field were analysed using simple correlation, multiple regressions and one-way analysis of variance (ANOVA) with the help of Software Package for Social Science (SPSS).

Findings

The gender distribution of the 467 respondents revealed that 192 (41.1%) were males while 271 (58.0%) were females. Most of the healthcare providers were within the age range of 20-50 years (93%). Out of the 467 healthcare providers 222 (47.5%) were nurses and mid-wives which is the highest number of healthcare providers that participated in the research. Doctors and dentists were 59 (12.8%), medical laboratory scientists were 41 (8.7 %), medical laboratory technicians were 11 (2.4%), pharmacists were 35 (7.5%), pharmacist technicians were 8 (1.7%), community health officers were 50 (10.7%) and others were 66 (14.1%).

Table 1: Relative Contributions of Organisational Culture, Interpersonal Trust and Incentives to the Prediction of Knowledge Sharing by the Healthcare Providers

Variable	Unstandardised Regression Coefficients		Standardised Regression Coefficients		
	B	Std. Error (B)	Beta	T	Sig. P
(Constant)	23.270	1.401		16.609	.000
Organisational culture	.197	.016	.488	12.202	.000
Interpersonal trust	.110	.029	.152	3.804	.000
Incentives	.001	.001	.043	1.082	.280

Table 1 presents the summary of the relative contributions of organisational culture, interpersonal trust and incentives to the knowledge sharing of the healthcare providers in healthcare institutions in Gombe State. The table shows that two out of the three variables (organisational culture (B= 0.197, $t=12.202$, $p<0.05$) and interpersonal trust (B=0.110 $t= 3.804$, $p<0.05$) predict knowledge sharing of the healthcare providers while incentives (B=0.001, $t=1.082$, $p>0.05$) do not significantly predict knowledge sharing of the respondents. Out of the three predictors, organisational culture has the highest relative contribution to knowledge sharing (Beta=0.488), followed by interpersonal trust (Beta=0.152) and incentives (Beta=0.043). This implies that organisational culture contributed 48.8% and interpersonal trust contributed 15.2% and incentives 4.3% to the prediction of knowledge sharing of the healthcare providers.

Table 2: Composite Contributions of the Three Variables to the Prediction of Knowledge Sharing

R	R Square	Adjusted r square	Std. Error of the estimate
0.511[a]	0.261	0.256	6.98824

Anova

Model		Sum of squares	Df squares	Mean	F-ratio	Sig. P
1	Regression	7990.079	3	2663.360	54.537	.000[b]
	Residual	22610.820	464	48.835		
	Total	30600.899	464			

A. Dependent variable: knowledge sharing

B. Predictors: (constant), organisational culture, interpersonal and incentives.

Table 2 presents the summary of the composite contributions of organisational culture, interpersonal trust and incentives to the prediction of knowledge sharing among the healthcare providers in the healthcare institutions in Gombe State. From table 2 the test of the hypothesis shows that organisational culture, inter-personal trust and incentives have jointly predicted the knowledge sharing of the healthcare providers ($F=54.537$, $df=3; 464$, $P<0.05$). More so, the value of adjusted R-Square = 0.256 which is the coefficient of determination of the multiple Linear Regression Model used. This means that 25.6% of the variation in knowledge sharing of the healthcare providers is explained by the Linear combination of organisational culture, inter personal trust and incentives of the respondents. The standard error of the estimate was 6.9882 indicating that the three variables represent a reasonably strong predictor of knowledge sharing of the healthcare providers. It was also found out that there was significant multiple correlation among organisational culture, interpersonal trust, incentives and knowledge sharing of the healthcare providers ($R=0.511$, $P<0.05$).

Discussion

One of the findings of this present study is that knowledge sharing has significant correlation with organisational culture, interpersonal trust and incentives of the secondary healthcare providers in Gombe State, Nigeria. This result is supported by Jacobs and Roodt (2011), the studies of Sensuse et al. (2014),Kokanuch and Tuntrabundit (2017), Mannion and Davies (2018) which all found that there is a positive correlation existing between organisational culture and knowledge sharing. In addition, Al-Alawi and Al-Marzooqi (2009) established that trust, communication, information systems, rewards and organisational structure are positively related to knowledge sharing in organisations.

The study also found that organisational culture, interpersonal trust and incentives significantly have combined predicting effect on knowledge sharing of healthcare providers in the secondary healthcare institutions in Gombe State, Nigeria. The value of adjusted R-Square which is 0.256 implies that 25.6% of the variance in knowledge sharing of the respondents is explained by the linear combination of their organisational culture, interpersonal trust and incentives in the secondary healthcare institutions in Gombe State, Nigeria. Furthermore, organisational culture contributed 48.8 percent; interpersonal trust contributed 15.2 percent to the prediction of knowledge sharing by the respondents. Organisational culture contributed the most to the knowledge sharing of the healthcare providers followed by interpersonal trust. Similarly, some studies that corroborated the findings of this research include

Tsai (2011) who reported from the findings of the study on hospital nurses in Taiwan that organisational culture is positively correlated to leadership behaviour.

Furthermore, the study found that two out of the three variables namely: organisational culture and interpersonal trust significantly predict knowledge sharing among the healthcare providers. Out of all the predictors, organisational culture had the highest relative contribution to knowledge sharing followed by inter-personal trust and then incentives. The findings revealed that organisational culture had the highest relative contribution to the knowledge sharing of healthcare providers in the secondary healthcare facilities followed by interpersonal trust and then incentives.

This result is supported by Ojo (2016) referring to Bassey (2012) who examined the antecedents and influence of organisational elements on Knowledge Management in knowledge intensive organisations. The findings revealed that there is a significant relationship between organisational elements and the KM process.

In addition the findings of Al-Basaidi and Olfman (2017) revealed that, human factors (related to knowledge healthcare providers and the peers) have a significant and direct impact on the intention to share knowledge. The result of research by Al-Basaidi and Olfman agrees to the findings that there is relative contribution of organisational culture, interpersonal trust and incentives on knowledge sharing. The result of this current study showed that organisational culture had the highest relative contribution and this result is corroborated by some other studies.

McManus (2016) also carried out a research with the aim of providing an investigative look at the factors that influence the willingness of employees to share knowledge within an organisational context. The factors the paper highlighted were critical to influencing the willingness to share knowledge include, but were not limited to culture, leadership, reward, information and communication technology, perception, working communication technology, working communities, reciprocity and psychological contract. This also corroborates the findings of the current study.

Similarly the study of Al-Alawi, Al-Marzooqi and Mohammed (2007) agrees with the findings of this study that critical factors like organisational culture, interpersonal trust, rewards among others contribute to knowledge sharing. The study of Karthiravelu, Mansor, Ramayah and Idris (2014) established that knowledge sharing practices are influenced by institutional structures. This has to do with the organisational culture of the healthcare institution. Other studies such as that of Stock, Mcfadden and Gowen (2017) buttressed the findings of this study that organisational culture is related to the effective sharing of knowledge.

Some past studies have shown that interpersonal trust was significant in knowledge sharing which agrees with the result of this study. For instance, Seo, Kim, Chang and Kim (2016) found that trust has a positive influence on knowledge sharing. In addition, Wu, Lin, and Yeh (2009) have corroborated the findings of this study as they found out that employees perceived interpersonal trust of either a colleague or superior as positively related with their knowledge sharing behaviour. This means interpersonal trust is a critical factor when it comes to knowledge sharing in fact Assem and Pabbi (2016) found that lack of trust in the healthcare system they studied was one of the barriers to knowledge sharing.

Although in this study the contribution of incentives was not so strong. However, previous studies have shown incentives to be significant in knowledge sharing, for example, McManus (2016) carried out a research with the aim of providing an investigative look at the factors that influence the willingness of employees to share knowledge. The factors the paper highlighted were critical to influence the willingness to share knowledge include, but were not limited to culture, leadership, reward among other factors highlighted. The interpretation of this is that the healthcare providers in the secondary healthcare facilities in Gombe State are still affected by the availability of incentives to share knowledge even though the result was not so significant. The implication of this is that where there are various types of incentives to encourage the healthcare providers, more knowledge will be shared.

Conclusion

Organisational culture, interpersonal trust and incentives have significant and positive relationships with the knowledge sharing of healthcare providers

in the secondary healthcare institutions in Gombe State, Nigeria. It is therefore recommended that the Hospital Management Board and the Ministry of Health should encourage a friendly organisational culture that is communal in nature, a good interpersonal trusting relationship and ensure the availability of adequate incentives such as acknowledgement letters, bonuses, opportunities for trainings among others which are very important for knowledge sharing practice to be enhanced among the health providers in the healthcare institutions in Gombe State, Nigeria.

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Esther Abiola Adeyemi is a doctoral research student in the Department of Library Archival and Information Studies at the University of Ibadan, Nigeria.

Sunday Olanrewaju Popoola is Professor in the Department of Library Archival and Information Studies at the University of Ibadan, Nigeria.