
Individual, Organizational and Technological Factors Affect Knowledge Sharing Practices in Assosa Hospital, Ethiopia

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Abstract:

Knowledge sharing is a backbone of any organization whether public or private organizations. However, many organizations do not actively practice knowledge sharing due to some barriers of its implementation. The main objective of this study was thus to investigate factors affecting knowledge sharing practices in Assosa Hospital located in Benishangil_Gumuze Regional State, Ethiopia. Cross-sectional research design was used. As data collection tool questionnaire was used. Accordingly, one hundred and six questionnaires were distributed to be filled out by health professionals in Assosa Hospital. The data was analyzed by descriptive and inferential statistics methods, with SPSS version 20. It was found that trust among staffs, open communication among staffs, awareness, motivational scheme, supportive leadership, knowledge sharing strategy and resource allocation were the most influential factors that affect knowledge sharing practices in the hospital. Moreover, most of the respondents have no knowledge of the importance of knowledge sharing and only a limited number of respondents practiced it.

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Knowledge sharing practice is at an infant stage in healthcare system in Ethiopia in general and Assosa Hospital in particular. Therefore, there is a dire need to work toward the implementation of knowledge sharing in health care system in the country by involving all the stakeholders.

Key words: Knowledge, knowledge sharing practices, healthcare, Assosa Hospital, Organization

INTRODUCTION

Knowledge is power and it influences our societies and economy. Successful societies and economies will depend on how well they are able to make use of this valuable asset, namely how well they share, how well they learn from the knowledge they hold, and how they use it to create new value (Noorazah,2011). Knowledge is a central resource of government service. Effective knowledge sharing among employees is a significant public management challenge for providing an excellent government (Kim and Lee 2005). It has the power to improve individual's lives and society. However, research has shown that people are reluctant to share their knowledge. Knowledge sharing involves not only our knowledge, but a process of giving and receiving of knowledge with others.

Knowledge management (KM) is the broad term of knowledge sharing. It is basically creating the proper knowledge or suitable source of knowledge in order to access the right people at the right time. In other ways it is included knowledge sharing, creation, storage and use. Knowledge sharing is the process of mutually exchanging knowledge and jointly creating new knowledge (van den Hoff & de Ridder, 2004). Actually, it is done in two ways: 1) By articulation i.e. an individual succeeds in formulating the fundamentals of his/her

own tacit knowledge into explicit knowledge that can be stored or formalized or shared within the organization; and 2) By socialization that is the sharing of tacit knowledge between people and knowledge moves from tacit to tacit (Nonaka, 1991). Knowledge sharing is an important process that contributes employee's ability to recover data and resources for the purpose of learning, problem solving, and improving the individual skills (Kuzu, Ozilhan and Hakan, 2014).

However, there are a lot of factors that influence knowledge sharing including individual factors (e.g., lack of trust, fear of loss of power, and lack of social network), organizational factors (e.g. lack of leadership, lack of appropriate reward system, and lack of sharing opportunities), and technological factors (e.g., inappropriate information technology systems and lack of training) (Riege, 2005). Therefore, the main aim of this study was to investigate factor affecting knowledge sharing practices among health professionals in Assosa Hospital, Ethiopia.

Knowledge sharing is very important in today's organization, to share knowledge and skills of employees. It is essential resource to improve the functions and operations of the organization. To accomplish this, it is very necessary to understand factors affecting knowledge sharing practices organizations. Different studies have identified a wide range of factors that influence Knowledge sharing practices. These factors could be grouped as technological factors, organizational or environmental factors, and individual or personal factors (Islam, 2014). Specifically, there are lots of factors that affect knowledge sharing, like time, work experience, education, intrinsic motivation, job autonomy, workplace and management support, which are among the greatest obstacle to knowledge sharing practices at individual level (Saeed, 2014). Because of such factors, implementation of knowledge sharing practices is at its infant stage in Ethiopia in general and particularly in

Assosa Hospital where this study was conducted. Therefore this study was initiated with the aim to investigate individual, organizational and technological factors that affect knowledge sharing practices in Assosa Hospital.

OBJECTIVE OF THE STUDY

The objective of the study was to investigate factors affecting knowledge sharing practices among health professionals of Assosa Hospital, Ethiopia.

RESEARCH QUESTION

The study will attempt to answer the following questions:
What are the factors that affect knowledge sharing practices among health professionals in Assosa Hospital?

SIGNIFICANCE OF THE STUDY

Assessing knowledge sharing practices will provide a better understanding of the true influencing as well as inhibiting factors on effective knowledge sharing in public organizations. The study will also attempt to make a significant scholarly contribution regarding to knowledge sharing practices in the healthcare sector, because so far there is only few similar studies conducted in Ethiopia.

Therefore, the findings of this research can be used as an input for policy makers, researchers, planners and development actors to better understand what knowledge management is and how to manage it in an effective way, to identify the root causes of an emergence of problems associated with knowledge sharing and in turn it will improve the overall organizational performances.

2. METHODOLOGY

Research Design

It is very important to choose the appropriate research design in order to achieve the study objective. Karlinger (2004) explained the research design as a plan that specifies how data connecting to a given problem should be collected and analyzed. Cross-sectional research survey method was applied in the study because survey is the best way to determine the present status of a given phenomenon.

Study population

Targeted population for this study were the employees in Assosa Hospital and there were 152 employees in total while the study was conducted of which 7 were middle managers and 145 were health professionals.

Sampling techniques and sample size determination

Sampling techniques

There are two approaches of sampling techniques. These are probability sampling techniques and non-probability sampling techniques. From probability techniques simple random sampling technique method was used to determine sample size from health professionals, whereas 7 middle managers were taken purposively. Therefore, in order to select the representative respondents from the targeted population the researchers used simple random sampling as well as purposive sampling techniques.

Sample size determinations

From the sample frame Assosa hospital, the sampling unit is health professionals. The researchers' new in advance that the total number of employees in Assosa Hospital were 152. From

152 total employees 145 health care professionals and 7 middle managers. To select the actual sample size from 145 employees sample size determination formula was used. That is, (Kothari, 2004):

$$n = \frac{z^2 p q N}{E^2 N + z^2 p q}$$

Description: N= is the population size

n = required sample size

z = confidence level at 95% (standard value of 1.96)

d=margin of error at 5% (standard value of 0.05)

p =population proportion at which the sample size is maximum (at p=0.5 and q=0.5, p*q=0.25) Where q=1-p

$$n = \frac{z^2 p q N}{E^2 N + z^2 p q} = \frac{(1.96)^2 * 0.5 * 0.5 * 145}{(0.05)^2 * (145 - 1) + (1.96)^2 * 0.5 * 0.5} = 106$$

Therefore, the total sample size for this study, including the middle managers was 113.

Data collection instruments

In order to collect the required data for the study, two types of data collection tools were used, namely, questionnaire and interview.

Method of Data Analysis

The data was described by using statistical techniques, both descriptive and inferential statistics. Accordingly, mean, standard deviation, frequency distribution and percentage were used to describe categorical data. When the scale is a 5- point-Likert type, the ideal mean value ranges as: 0-1.49 as very low, 1.50-2.49 as low, 2.50-3.49 as moderate, 3.50-4.49 as high and 4.50-5.00 as very high implementation of activities, (standardized ideal mean value ranges, with 5- point-Likert). Moreover, linear regression was employed to predict statistical

effect and relations between variables. The p-value is either < 0.05 or > 0.05 . If it is less than 0.05, there is a statistical significant effect and correlations. If the p-value is greater than 0.05, there is no statistical significant effect and correlations. An asterisk (*) is put on the coefficient to show the significant level whether the p-value is less than or greater than 0.05. All quantitative data were analyzed using Statistical Package for Social Science (SPSS-version, 20.0).

On the other hand qualitative data was analyzed by narration and description.

Ethical considerations

During data collection, each respondent was informed about the purpose, scope and expected outcome of the research, and appropriate informed written consents taken from the respondents. Those who were not willing to participate was excluded from the study.

3. RESULTS

One hundred six questionnaires were distributed among the study participants. Of the total distributed 106 questionnaires, 91 (86%) were completed and returned back for analyses.

Socio-demographic information of the respondents

The general information about the respondents' sex, age, educational qualification, years of experiences and work position are presented for better understanding of their background. The male respondents were 69 percent of the total sample and 31 percent were female. As to the age group, the largest group of the respondents was between the age of 20 and 30 (42 %) followed by age group 31-40 (32%), 41-50 years of age (21%) and age group more than 50 years (5%). Regarding to educational qualification of the respondents, 42 (46.2%) and

24(26.4 %) of the respondents are first degree and diploma holder respectively. While, 22 (24.4 %), 2(2.2 %) and 1(1.1%) of professionals have master degree, Medical Doctor and specialist holders respectively. As to the work experience, 40 percent of the respondents had a work experience of less than five years. Nearly 35 percent had six to ten years of work experience, 11 percent had experience ranging from eleven to fifteen years, 5.5 percent have been working from sixteen to twenty years while 8.8 percent of the respondents have worked for more than twenty years ago.

Factors that influence knowledge sharing practices

In an attempt to explore the main influence for the spread of knowledge in the hospital considered for this study, the survey questionnaires were grouped in to individual, organizational and technological factors. Accordingly, the following findings were obtained and presented in table 1, table 2 and table 3 for individual, organizational and technological factors respectively.

Table 1. Individual factors of knowledge sharing practices

Items selected as factors for knowledge sharing	Strongly agree%	Agree %	Neutral %	Disagree%	Strongly disagree%	Mean value	Std. dev.
Individual factors/variables	5	4	3	2	1		
1 There is lack of awareness of importance of knowledge sharing.	17.6%	25.3%	11%	36.3%	9.9%	3.04	1.316
2 Lack of considerable level of trust between employees in organization	9.9%	34.1%	16.5%	25.3%	14.3%	3.00	1.256
3 Lack of fair and open communication among staffs to encourage knowledge sharing.	26.4%	37.4%	8.8%	17.6%	9.9%	3.53	1.13
4 Lack of face-to-face social interaction among colleagues at workplace.	7.7%	26.4%	9.9%	38.5%	17.6%	2.68	1.25
5 An employee does not share knowledge	9.9%	28.6%	4.4%	31.9%	25.3%	2.66	1.384

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	because of fear of taking unjust credit no it or perceiving he/she loses of importance.							
6	Employees in your organization do not share knowledge because they think knowledge is power.	-	23.1%	11.0%	39.6%	26.4%	2.31	1.102

Lack of awareness: Health professionals were asked about the level of awareness on knowledge sharing practice. Accordingly, 46% of the respondents have awareness on importance of knowledge sharing and 43% disagreed on the presence of awareness whereas 11% were neutral. The mean value of responses is 3.04. This implies that awareness of employees on knowledge sharing is at medium level in the study organization.

Lack of trust among healthcare workers: Health professionals were asked whether there is lack of trust in the organization. As the result of the study showed around 44% of the respondents agreed (strongly agreed and agreed) on the lack of considerable level of trust among health workers. However, 40 percent had an opposite opinion and 16 percent were neutral. The mean value of responses is 3.00 that indicate in the scope of moderating level of trust.

Regarding lack of open and fair communication among employers and employees, the result of the study also revealed that, 64 percent of the respondents agreed as there was no fair and open communication and decision to share knowledge and 27 percent has opposite opinion on the presence of open and fair decision making within their hospital. However, 9 percent of the respondents were neutral. The mean score of 3.54 is agreement of responses on lack of fair and open communication and decision. One can conclude from the result, the level of open and fair decision making was low.

Lack of face to face interaction of health professionals at work place: Only 34 percent of the respondents agreed as there was no face-to-face social interaction among employees in the workplace. But the majority (56%) of the respondents disagreed and 10 percent were neutral. The mean value of the responses is $M= 2.68$, $Sd.dev=1.255$ which is in the range of moderate level.

Regarding fear of taking unjust credit or fear of loss of perceived personal benefit toward sharing knowledge, information and experiences in organization, 39 percent of the respondents agreed as an employee does not share knowledge because of the fear of it being misused by taking unjust credit for it or perceiving he/she loses importance. The majority (57%) disagreed and 4 percent were neutral. The mean value of the responses is $M= 2.66$, $Sd.dev=1.34$ which are in the range of moderate level and finally the respondents were asked about the extent of the problem to which loss of knowledge is power for knowledge and experience sharing. The majority (66%) of the respondents disagreed that employees do not share knowledge because of the belief that knowledge is power.

Table 2: Organizational factors of knowledge sharing practices

Items selected as factors for knowledge sharing	Strongly agree%	Agree %	Neutral /undecided %	Disagree %	Strongly disagree %	M	Std. dev.
	5	4	3	2	1		
Organizational factors/variables							
1 Health professionals were not rewarded for sharing their knowledge and experience with their colleagues.	26.4%	38.5%	5.5%	22.0%	7.7%	3.54	1.30
2 There is lack of formal and informal activities to encourage knowledge sharing in your organization.	3.3%	40.7%	7.7%	34.1%	14.3%	2.85	1.2
3 There is lack of technical support	8.8%	56%	8.8%	19.8%	6.6%	3.41	1.10

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	and immediate maintenance which obstructs work routines and communication flows.							
4	Retention of highly skilled and experienced employee is not a high priority in your organization.	27.5%	51.6%	8.8%	9.9%	2.2%	3.92	0.98
5	The existing organizational culture does not support sharing knowledge practices.	7.7%	46.2%	12%	20.9%	13.2%	3.14	1.22
6	There is no a specific budget dedicated for knowledge sharing in organization.	6.6%	34.1%	4.4%	33.0%	22.0%	2.70	1.32
7	Knowledge sharing is not taken as part of the daily work process in the organization.	18.7%	56%	1.1%	18.7%	5.5%	3.64	1.15

Key: mean value range: 4.50-5.00 – very high level of effect. 3.50- 4.49 – high level of effect 2.50-3.49–moderate level of effect, 1.50-2.49– low level of effect, 0-1.49– very low level of effect

Lack of rewards: As the result of this study showed in table 2, item 1, nearly 65 percent of the health professionals agreed as there was no reward system for sharing their knowledge and experience with their colleagues. On the other hand 30 percent disagreed and about 5 percent were neutral. The mean value of the responses is 3.54 with Sd.dev, 1.30 which are in the range of agreement, which implies that the implementation of reward system in the organization is low.

With regard to lack of formal and informal activities to encourage knowledge sharing, 44 percent of the respondents agreed as there was formal and informal activities to encourage knowledge sharing. However, 48 percent of the respondents disagreed and 8% of the respondents were neutral. The mean

value of the responses is 2.28 with its Sd. dev. 1.3, which is in the range of medium level.

Regarding the lack of technical support and immediate maintenance which obstructs work routines and communication flows, the result of the study showed that 65 percent of the healthcare professionals agreed that there was lack of technical support and immediate maintenance which obstructs work routines and communication flows between each unity. However, 26 percent disagreed and 9 percent were unable to decide. The mean value of the response is 3.41, which is in the range of inclines to disagreement. This implies that there was no technical support and immediate maintenance which obstructs work routines and communication flows, good management support to encourage knowledge sharing in the study organization.

The respondents were also asked about the extent of the problem to retain highly skilled and experienced staffs in organization. Accordingly, the majority (79 %) of the respondents agreed that there was a problem of retaining highly skilled and experienced professional in the hospital. And mean a value response is 3.92 that showed there is low level of retaining highly skilled and experienced staff. As to the knowledge sharing culture, the health professionals were asked extent of their agreements. About fifty four percent and 34 percent of respondents agreed and disagreed respectively on the openness of organizational culture for sharing knowledge. The mean value of the responses is 3.14 with standard deviation 1.22, which is in the range of moderating level of effect.

Concerning financial resource allocation about 40 percent of the health professionals agreed that there is lack of financial resource allocation for knowledge sharing, professional development and training. The mean value of the responses is 2.63 with standard deviation 1.27 implies that the

implementation of resources allocation for knowledge sharing in the Organization was found at moderate level.

Regarding with lack of knowledge sharing strategy as one part of daily work process, 74 percent of health professionals agreed toward absence of clearly articulated (i.e. written) knowledge sharing strategy in the organization whereas 25 percent of respondents opposite the opinion on the absence of knowledge sharing strategy.

Table 3: Technological factors on knowledge sharing practices

Items selected as factors for knowledge sharing	Strongly agree%	Agree %	Neutral /undecided %	Disagree%	Strongly disagree%	M	Std. dev.
Technological factors/variables	5	4	3	2	1		
1 The organization provides various tools and technologies to facilitate knowledge sharing and exchange (e.g. groupware, e-mail, intranet)	3.3%	31.9%	11%	38.5%	15.4%	2.61	1.17
2 You feel comfortable using the knowledge sharing technologies available.	7.7%	44%	8.8%	28.6%	11.0%	3.09	1.21
3 Do you use information technology to share your knowledge? 'Yes' /'No' If 'yes', how easy is to use? ---	Yes=29%			No=71%			

The respondents were asked whether their organization provide information systems that facilitate knowledge sharing and it was found that 35 percent of the respondents agreed, and 54 percent disagreed whereas about 11 percent were unable to decide on the presence of ICT access that facilitates knowledge sharing in the hospital. The mean value of responses is 2.61 is in the range of moderate level of ICT access (Table 3, item 1). When participants were asked whether or not, they felt comfortable while using knowledge sharing technology availability, 52 percent agreed, 39 percent disagreed and 9 percent were neutral.

Regarding perceived ease of use of information technology the majority (71%) of the respondents were not IT users and 29% of respondents believed that sharing of

knowledge by support of IT to be easily achievable. However, the sharing of knowledge and information effectively and frequently was difficult and impractical in the absence of modern information system that would facilitate knowledge sharing among the employees in the organization.

The study examined several individual variables as possible explanations for knowledge sharing practices. Lack of awareness on importance knowledge sharing, presence of trust among the staff, presence of face-to-face social interaction, fair and open communication and decision among staff and fear of loss perceived personal benefits show statistically significant correlation with variable knowledge sharing.

Regression analysis shows that the individual factors: fear of loss perceived personal benefits ($B=-.164^*$, $P<.05$), trust among employees ($B=.189^*$, $P<.05$) and open communication and decision among staffs ($.588^{**}$, $P<.01$) were found as independent predictors and significantly correlated to knowledge sharing in the significance level of 95% in this study. All individual factors jointly could explain up to 55% and 29% of the total variance in knowledge sharing ($R^2=.551$) and organizational performance ($R^2=.291$) respectively.

The results of this study show that the association between health workers openness had a statistical significant correlations with knowledge sharing and organizational performance. The multiple regression result shows that open communication and decision among staffs found highest statistical significant predictor for knowledge sharing practice ($B=.588^{**}$, p value=.000) and organizational performance, ($B=.328^{**}$, $P=.004$) in this study (Figure 1).

Regarding to variable Fear of loss perceived personal benefits: regression model showed negative correlation and weak significantly impact on knowledge sharing variable ($B=-.164^*$ with $p<.05$). From this finding one can interpret that fear of loss perceived personal benefits' negative B value suggests

that willingness to share knowledge decreases as fear of loss perceived personal benefits increase.

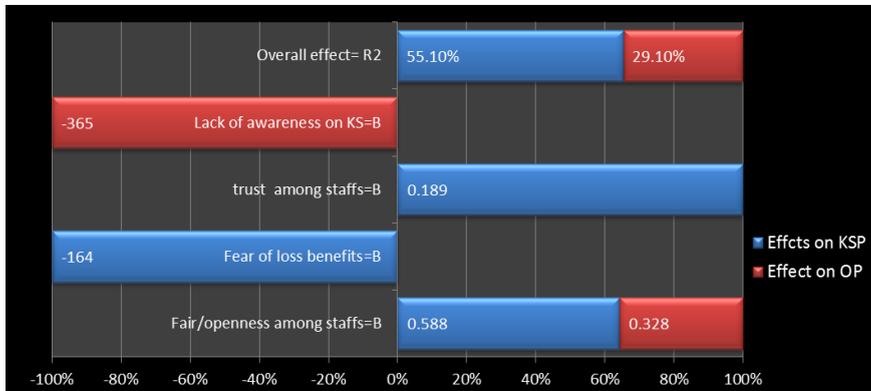


Figure 1: Effects of Individual variables on knowledge sharing and organizational performance

Speaking about, predictor variable trust among healthcare workers and dependent variables of knowledge sharing practice had direct positive relationship ($B=.189^*$ with $p<.05$) which shows significant correlation and impact. This finding intenerates that trust between employees increase, practices of knowledge sharing among employees increase. Therefore, trust among health professionals was found as one of influential variable on knowledge sharing practices. However, the model regression analysis shows that independent variables face-to-face social interaction and lack of awareness on knowledge sharing is not a statistically significant predictor for the dependent variable (knowledge sharing practice). With respect to, lack of awareness among healthcare workers, it shows negative significant correlation and impact for dependent variables of organizational performance ($B=-.365^{**}$ with $p<.01$). In other word lack of awareness negative B-value suggests that performance in organization decreases as lack of awareness increase among staffer. Therefore, lack of awareness among

health professionals was found as one of influential variable on organizational performance but not for knowledge sharing.

The analyzed organizational factors: supportive leadership, financial resources and rewards, presence of motivational scheme, and presence of periodic meeting, workshops, and training for knowledge sharing were correlated with knowledge sharing practices and also found as independent predictors in the regression analysis.

Out of all organizational factors: presence of supportive leadership ($B=.273^{**}$, $p<.01$), financial resources allocation for KSP ($B=.257^{**}$, $p<.01$), Presence of work training, meeting, and workshop ($B=.206^*$, $P<.05$), and lack of rewards ($B=.248^{**}$, $p<.01$) were included in regression equation and have significantly contributed to the variance in knowledge sharing ($R^2=.450$). All selected independent organizational variables could explain about 45 percent and 44.3% of variance/changes on knowledge sharing practices ($R^2=.450$) and organizational performance ($R^2=.443$) respectively.

The biggest influential predictor variable for both knowledge sharing practices and organizational performance is presence of financial resource allocation for knowledge sharing. As the result of this study shows there is a statistically significant positive association between financial resource allocation, knowledge sharing practices and organizational performance. It had coefficient $B=.459^{**}$, $P<.01$ and $B=.596^{**}$, $P<.01$ for both knowledge sharing practices and organizational performance respectively, which is the best predictor variable. The positive coefficient B with significance level explains that presence of resource allocation have direct relationship with knowledge sharing among workers and performance of organization, which implies that practices of sharing knowledge, information and performance increases with presence of sufficient financial resources allocation. Therefore,

presence of financial resources is best predictor for both knowledge sharing and organizational performance.

The results of this study show that the association between supportive leadership and knowledge sharing is positive significant predictor. The multiple regression result shows supportive leadership are ($B=.273^{**}, p\text{-value}<.01$), influential variables for change of in knowledge sharing variable but it does not show statistically significant predict on organizational performance. In other words, the averages healthcare workers who had supportive leadership were .314, times more likely to practice knowledge sharing than those who had no supportive leadership by controlling the other variables as constant.

The results of this study show that there is a significant association between rewards system and knowledge sharing practices. It is significant at $P <.01$ level, $B=.248^{**}$ which implies, knowledge sharing and rewards has direct relationships. In other words, when health professionals were rewarded as incentive, their willingness and practices to share knowledge increases.

Healthcare workers have professional skills and expertise to deal with a variety of situations. Therefore, in this study also there is a significant association between presence of work training and knowledge sharing practices. It had $B=.206^{*}, P<.05$ level which implies, knowledge sharing and presence of work training has direct positive relationships. In other words, health professionals who had job related trainings, workshops, meetings in organization, also will share their knowledge, skills, and experience more. The frequency of reported work-related training was used as a measure of professionalism. The regression result, work related training has statically significant correlation with organizational performance $B=.190^{*}, P<.05$, which implies that presence of job related training will improve performance.

The multiple regression result shows presence of motivational scheme is statistically significant predictor with the knowledge sharing variable (186*, p-value<.05), and organizational performance (263**, p-value<.01). Motivational system factor in organization are considered to be significant and impressive on the practices of knowledge sharing and to improve performance in organization. When employees are motivated to share their knowledge, organizational performance will also increase.

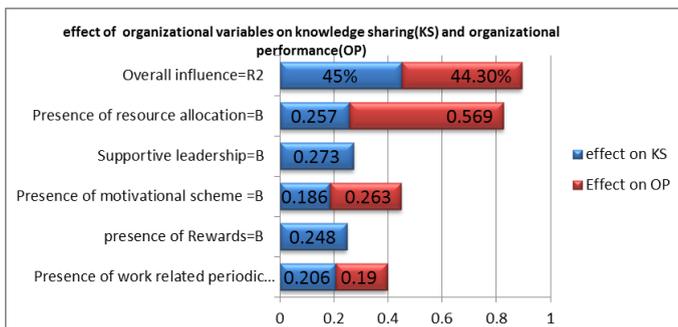


Figure 2: effects of organizational factors on knowledge sharing and organizational performance

Therefore, the study finds that presence of supportive leadership, financial resources; presence of motivational scheme; presence of organized meeting, workshops, training, would be associated with knowledge sharing practices and the study proves that those variables will impact on the organizational performance as depicted in figure 2.

The presence of ICT access is associated with knowledge sharing practices among the employees. Simple linear regression analysis shows results of ($B = .358^{**}$, $p\text{-value} = .000$, $R^2 = .137 = 14\%$), implying that there is a positive and significant correlation between technology and knowledge sharing. The presence of ICT and access in the organization predicted near 14% of changes for share knowledge, information by commonly and easily, among health professionals in organization.

However, it does not statically significant predict for organizational performance.

The results of Pearson's Correlation Test show that the variable of knowledge sharing is positively and significantly related to organizational performance in the significance level of 95%. It can be claimed that organizational performance will increase as knowledge sharing improves among the employees. As shown in this table 4. Below, knowledge sharing has a linear correlation with organizational performance and knowledge sharing account for 18.4 percent of the changes in organizational performance ($R^2=.184$).

Table 4: Predicting effect of knowledge sharing on organizational performance

Predictors/ KS variable		Coefficient		R ²	T	Sig.
		B	S.E			
model	(Constant)	1.494	.502		2.978	.004
1	Practice of knowledge sharing practices	.405	.121	.184	3.343	.001

As the result of linear regression shows that knowledge sharing has significant effects on organizational performance. The model is significant at level of $p < 0.01$ with F-value of 4.852. The coefficient of determination (R^2) is 0.184, which indicates that near 18.4 % of the variance /change in organizational performance is explained by the independent variables of knowledge sharing practices. Out of four independent variables: willingness to share knowledge, ($B = .405^{**}$, $p < .01$), shows statistically significant predictors. Therefore, it can be concluded that there is correlation between of knowledge sharing and organizational performance, i.e. as the status of knowledge sharing improves organizational performance will also improve.

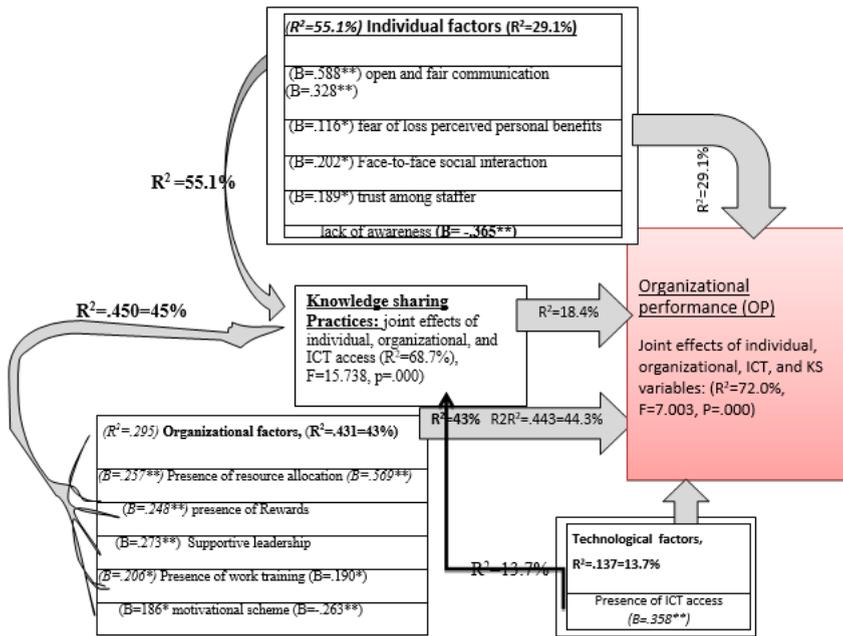


Figure 3: Summary of total impacts independent variables and dependent variables

As model summary shows total impact of organizational variables had statistically significance changes with coefficient determination R². Under organizational factors those variables: supportive leadership, financial resources, presence of motivational scheme, presence of organized meeting, workshops, training and rewards, used in this study were found as independent predictors in the multi-regression analysis. Therefore, all selected independent variables could explain about 45% of total variance/changes in knowledge sharing practices. Moreover, also organizational variables had statically significance changes with coefficient determination, R²=.443 which equal to 44.3% of the variance/changes of organizational performance.

Therefore, the study finds that presence of supportive leadership, financial resources; presence of motivational scheme; presence of organized meeting, workshops, training,

and presence of rewards in the organization would be associated with performance and the study proves that those variables will impact on the organizational performance. Presence of resource allocation has a greatest impact on performance rather than other variables.

The presence of ICT access is associated with knowledge sharing practices among the employees. Simple linear regression analysis shows results of ($B = .358^{**}$, $p < .01$, $R^2 = 13.7\%$), implying that there is a positive and a correlation between technology and knowledge sharing. The presence of ICT access in the organization predicted 13.7% of changes of knowledge sharing. Unfortunately, the presence of ICT access does not predict significant effect and correlation with organizational performance.

To sum up all three individual factors (55.1%), organizational factors (45%) and technological factors (13.7%) could explain up to 68.7 percent of the total variance/ changes in knowledge sharing practices, ($R^2 = .687$) and also variables that predict the organizational performance were knowledge sharing practices (18.4%), organizational variables (44.3%), individual variables (29.1%), altogether could explain 72.0% of the total variance in organizational performance, ($R^2 = .720$) (figure 3).

DISCUSSION

The aim of the present study was to investigate the factors that encourage or discourage knowledge sharing practices among health professionals in Assosa Hospital. As qualitative and quantitative data analysis revealed, there are several barriers to knowledge sharing practices. These barriers are to do with technology, organization and individual factors. Accordingly, trust among staffs, awareness, fair and open communication among staffs, fear of loss of personal benefits and social

interaction were identified under the individual dimensions whereas, supportive leadership, resource allocation, presence of periodic meetings and motivational scheme were identified organizational factors and regarding technological factors poor ICT access, poor ICT know-how of the staff were identified.

As aforementioned, lack of trust is one of individual barriers to knowledge sharing practices. The reason for lack of trust among staffs is lack of fair and open communication. As the study by Hislop (2003) suggested fair and open decision-making practices that should directly influence knowledge sharing practices. Obviously there will be higher levels of trust when employees feel that communication is open and fair. The statistical regression result also showed that open communication and decision among staffs is the significant predictor for knowledge sharing practices ($B=.588^{**}$, $p\text{-value}=.000$) and this holds true for organizational performance, ($B=.328^{**}$, $P=.004$). Reward is also one of the effective factors which encourages people to share knowledge with others. Kugel & Schostek (2004) in their study found that knowledge is shared only because monetary rewards are obtained, and when the rewards system is withdrawn, the knowledge sharing behavior will decrease. The effectiveness of both reward and recognition systems will motivate people to share their knowledge. Absence of any transparent rewards and recognition systems will hamper the knowledge sharing (Valmohammadi, 2010).

The most important organizational barriers in the Assosa Hospital were found to be lack of design knowledge sharing as part of work process (74%), lack of retaining highly skilled and experienced professionals (79%), lack of financial resource allocation for knowledge sharing (41%), lack of technical support and immediate maintenance that obstacle knowledge sharing practices (65%), lack of formal and informal activities to encourage knowledge sharing practices (44%). This

finding is in line with other studies carried out in different areas. For example, in his study Riege, (2005) pinpoint obstacles at organizational level are economic capacity, lack of background and resources, lack of formal and informal meeting places, inconvenient physical environment as well as technological factors. An organization requires the allocation of funds and other resources for knowledge management implementation (Singh et al., 2003; Kant and Singh, 2009). Similarly the finding of our study showed that lack of resources allocation is one factor that influence knowledge sharing practices because financial, human, and time are necessary enabler for effective knowledge sharing practices with support of top management. Also in this study organizational variables were a significant predictor of knowledge sharing practices in the hospital. Presence of supportive leadership ($B=.273^{**}$, $p<.01$), financial resources allocation for knowledge sharing practices ($B= .257^{**}$, $p <.01$), presence of work training, meeting, and workshop ($B=.206^{*}$, $P<.05$), and lack of rewards ($B=.248^{**}$, $p<.01$) were included in regression equation and have significantly contributed to the variance in knowledge sharing ($R^2 =.450$). All selected independent organizational variables could explain about 45 percent and 44.3% of variance on knowledge sharing practices ($R^2=.450$) and organizational performance ($R^2=.443$) respectively.

As to the technology aspect, as stated by studies of Assessment of the Ethiopian National Health Information System Final Report, (2007), ICTs became backbones for health care institutions in this competing environment. Nowadays, various stakeholders have given attention to the application of ICTs in health care facilities to deliver evidence based quality health care services. However, the opposite was true in the study areas. The majority (54.0%) of the health professionals said there is poor ICTs access in the study area. The most possible reasons could be financial resource limitation, poor

attention from management and staffs and lack of skilled personnel. This finding is supported by the study done by Lin and Lee (2006) that identified a positive relationship between use of technology and knowledge sharing.

CONCLUSION AND RECOMMENDATION

Identifying the most important factors affecting knowledge sharing practices among hospital staffs is very essential for managers, health professionals and other concerned bodies in order to make evidence-based plans to solve problems. According to results of this study, lack of awareness (46%), low level of trust among staffs (44%), lack of open communication among staffs (64%), low level of social interaction (34%), and fear of loss personal benefits (39%) were the most influential individual factors for knowledge sharing practices. All individual factors jointly could explain up to 55% and 29% of the total variance in knowledge sharing ($R^2=.551$) and organizational performance ($R^2=.291$) respectively.

The organizational barrier factors that rated by survey respondents were: low level of supportive leadership, lack of motivational scheme, lack of retaining highly skilled and experienced staffs, poor ICT access, lack formal training, workshop, meetings, lack of rewards and recognitions, lack of financial resource allocation for knowledge sharing, lack of technical support and immediate maintenance that hinders knowledge sharing practices in the hospital and absence of articulated knowledge sharing strategy as part of work process, were identified barriers for effective knowledge sharing in the study area. The result of inferential statistical also predicted that supportive leadership, financial resources allocation, presence of rewards, presence of motivational scheme, and presence of periodic meeting, workshops, training; and ICT access were found as independent predictors in the regression

analysis for both knowledge sharing practices and performance of organization. All selected independent organizational variables could explain about 45% and 44.3% of variance/changes for effective knowledge sharing practices ($R^2=.450$) and organizational performance ($R^2=.443$) respectively.

Based on the finding of this study it is highly recommended that Assosa Hospital top management consider as a priority to develop knowledge sharing strategy to facilitate knowledge sharing practices and practice evidence based medicine which is argued by many scholars as a way forward to provide quality healthcare for patients.

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