

KNOWLEDGE SHARING BEHAVIOR AND ITS PREDICTORS: SUBJECTIVE NORMS AS MEDIATOR

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ABSTRACT

Purpose – the purpose of this paper to establish an understanding of the factors that affect knowledge sharing behavior in healthcare sector, employing social exchange theory.

Design/methodology/approach – Data in this study were collected from a total 650 healthcare professionals. Partial least square structural equation modeling (PLS-SEM) was utilized to analyze the research model of this study.

Findings – The results show that personal values, organizational climate and subjective norms have positive and significant impacts on knowledge sharing behavior. Both personal values and organizational climate positively influenced subjective norms. Subjective norms have positive and significant mediating effect on the relationship between personal values, organizational climate and knowledge sharing behavior.

Research limitations/implications – Knowledge sharing behavior was investigated in Tanzania to among healthcare professional. The findings should be validated and generalized by conducting further research in different geographical setting and context.

Practical implications – The findings of this study provide emphasizes on developing a favorable environment that would support employees build up attitude towards knowledge sharing behavior as well as the significant role of perceived social pressure by institutional employees(senior employees, managers) as mediators for instigating employees likely to engage in knowledge sharing behavior.

Originality/value – The major contributions for present study are the following: investigation of knowledge sharing behavior in healthcare sector; investigation of the direct impact of the personal values, organizational climate, and subjective norms on knowledge sharing behavior; finally, examination of mediating effect of subjective norms on relationship between personal values, organizational climate, and knowledge sharing behavior.

Keywords- Knowledge sharing behavior, Healthcare sector, Healthcare professionals, Tanzania.

INTRODUCTION

Knowledge can be described as an expertise or understanding which resides on individuals' minds as well as in organizational repositories and acquired through experience, interaction and publication [1-3]. Thus, knowledge sharing behavior is the most important component of knowledge management that assists learning, maintains experiences from serving customers and enables retrieving and utilizing of knowledge [4, 5]. Knowledge is considered to be a power when is spread to other members, since it will lead some individual to lose his personal guarantee [5]. It is regarded that the limited time and slightly appreciation to the knowledge disseminator are factors once considered may trigger out knowledge sharing among members [1].

Knowledge sharing in healthcare institutions can be defined as the process of disseminating knowledge related to the medical practices, utilizing a collaborative medium of communication for developing knowledge skills and capabilities among healthcare professionals [6]. Therefore, because of the significance of knowledge sharing behavior, healthcare institutions should create knowledge sharing culture in which medical doctors and nurses are free to share knowledge, skills, experiences and better utilization of available knowledge in order to ensure delivering of healthcare services.

However, knowledge sharing behavior in healthcare organizations is not sufficient [7, 8]; this due to the lack of inter-professional shared fundamentals, lack of common medical practices, inconsistency in the interpretation of patient diagnosis and situations as well as absence of incorporated training programs [7, 9].

Despite the substantial mounting recognition on the important benefits of knowledge sharing behavior in healthcare sector and limitations on knowledge sharing behavior, there are small number of studies on knowledge sharing behavior [10-13], particularly spotlighting healthcare professionals [14, 15]. Moreover, those few studies in knowledge sharing behavior discipline have been conducted out in Asian and western countries [6, 10, 14-19], the findings from those studies cannot be generalized in other setting like Tanzania due to the culture and development differences. Therefore, the present study contributes to the literature on knowledge sharing behavior by investigating mediating effect of subjective norms on the relationship between personal values, organizational climate and knowledge sharing behavior. Specifically, we investigate whether subjective norms can mediate the personal values, organizational climate and knowledge sharing behavior in healthcare institutions. The motive of this paper is to address the relationships between personal values and knowledge sharing behavior, organizational climate and knowledge sharing behavior, personal values and subjective norms, organizational climate and subjective norms and subjective norms and knowledge sharing behavior. Thus, a study on knowledge sharing behavior can reveal several implications for managers and practitioners, such a research specifically in the healthcare sector, which entails in diversity of expertise and skills that can assist developing an environment for institutional knowledge sharing behavior.

THEORETICAL BACKGROUND

Social exchange theory

Social exchange theory (SET) is general model, which does not demarcate salient beliefs regarding a specific behavior. Social exchange theory of [20] asserts that the continuous contribution is a way used by the individuals to pay back the favorable treatments from their organization [21-24]. Researchers require contemplating salient beliefs for a particular behavior in a specific context when opting SET to explicate social

behaviors [7]. Individual knowledge is considered as private good which belonged to individuals and resided in their minds [25]. Employees tend to engage in sharing knowledge by means of exchange with the intention of gaining appropriate benefits [26]. Thus, knowledge sharing behavior can be investigated as a kind of social exchange [27, 28]. Hence, SET is an appropriate theory in examining behavioral beliefs influencing attitude towards knowledge sharing behavior.

SET proposes that individuals execute behavior by anticipating appropriate benefits, and they tend to adopt behaviors that increase benefits and reduce cost [20]. SET tends to establish unspecified obligations, which means that there is no specification on the nature of rewards and individual will receive [20]. Individual likes to provide a favor to the one reciprocates the favor [7]. Therefore, the nature of SET is reciprocal interdependence; one part receives a favor should compensate other part's behavior [7, 20, 29]. SET explains that employees and organizations come into reciprocal relationships in which the organization is expected to provide adequate support and a conducive working condition for employees in exchange for loyalty, commitment, and higher performance on the part of the employee [31].

SET entails both tangible and intangible consequences which are connected to social and esteem demands [29]. Resources offered away and negative consequence are regarded as costs, both received resources and positive results are taken as benefits in the process of exchanges [30]. The benefits can be divided into two; can be either from extrinsic benefits example guidance and service or intrinsic benefits for instance individual desirability [20].

Social exchange theory has employed by researchers to examine knowledge sharing behavior. [7, 32] used SET to study attitude that influence knowledge sharing in the constructive team. [33-35] employed SET in studying knowledge sharing and its determinants. [27, 28, 30] also utilized SET to examine the impact of expected association and attitude towards knowledge sharing. Therefore, we employed personal values, organizational climate and subjective norms to consider social exchange theory (SET).

LITERATURE REVIEW

Knowledge sharing behavior

Knowledge sharing behavior is an actual effort and contributions to create knowledge in an organizational database and influencing practitioners and researchers to grow interest on it [11, 29, 36]. Knowledge is considered as core issue in knowledge management and it is an organizational valuable resource because it represents concrete assets and the processes of creating it are regarded to be difficult to reproduce [37]. Knowledge sharing behavior has been explicated relying on social exchange theory [20] and the successful knowledge sharing behavior creates an obligating to reciprocate knowledge in the future based on expected monetary and none monetary benefits [38].

In institutions, reciprocal exchange of knowledge plays a significant role in molding impression among employees and rising of productivity. Reciprocal exchange is considered as the means for growing employees' cooperation [39]. However, offering and acquiring of support over time, it might make employees to obtain potential resources such as knowledge that can enhance both organizationally and employee's productivity, because of the strong norm of reciprocity prevailing upon them [40, 41]. Knowledge sharing behavior plays significant role in helping the institution to achieve the best practices, and reducing difficulties and efforts on employees learning to master new area of expertise [11, 42].

RESEARCH MODEL AND HYPOTHESES

The intention of this paper is to investigate knowledge sharing behavior and its predictors, while subjective norms are considered as mediator, applying social exchange theory SET as suggested theory. Prior studies identified there is positive and significant relationship between personal values, organizational climate, subjective norms and knowledge sharing behavior [15, 27, 30, 43]. However, this intends to investigate mediating effect of subjective norms on relationship between personal values, organizational climate and knowledge sharing behavior. The research model and hypothesis are suggested (figure1). The research model is the collection of personal values (PVs) and organizational climate (OC) as independent variables, subjective norms (SNs) as dependent variable and knowledge sharing behavior (KSB) as dependent variable.

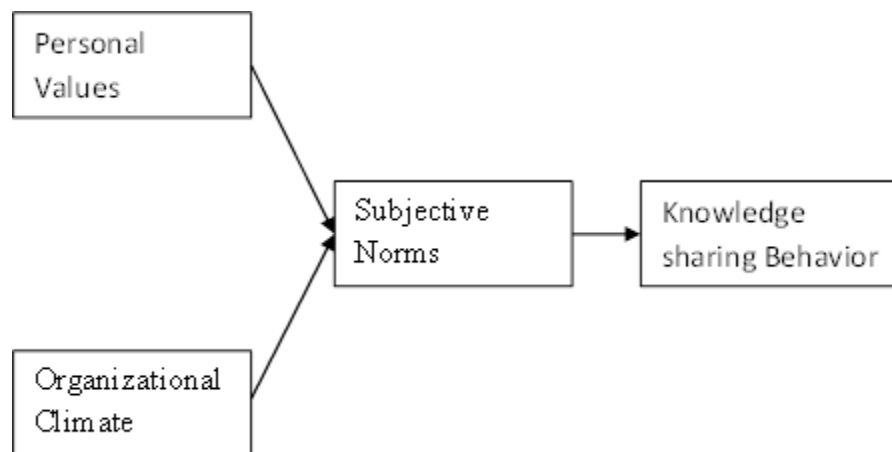


Figure1. The research Model

Personal values and knowledge sharing behavior

Personal values refer to the beliefs that control person behavior [21]. Personal values may drive individual to execute behavior of helping others without expecting some compensation [44]. Personal values may also develop an individual desires to help others in donating knowledge [25]. Previous studies have recognized that personal values are significant motivator of knowledge donation [30]; [13]; [45]. According to social exchange theory which emphasizes on exchange benefits and norms of reciprocity, if an individual has highly positive perception on personal values such as helping others may abide with norms of reciprocity, which drives one's to engage in knowledge sharing behavior as helping others. Thus, the following hypothesis is proposed:

H1: Personal values have a positive impact on knowledge sharing behavior.

Personal values and subjective norms

Personal values develop people to perform a behavior aiming to benefit others without anticipating anything return [15]. Based on theory of social exchange, with such people may develop norms reciprocity which will drive them to engage in knowledge sharing behavior. According to prior literature indicated that personal values is antecedent of subjective norms [15, 43]. Therefore, the following hypothesis is developed:

H2: Personal values have positive impact on subjective norms.

Organizational climate and knowledge sharing behavior

Organizational climate is positive perception of the employees towards organizational policies, practices and procedures [15, 43]. Organizational climate is regarded as key driving factor of knowledge sharing behavior [46]. According to [27, 47] state that when an institution campaigns close relationship, innovation and fairness as antecedents of organizational climate increase employees' willingness to share knowledge, in return, influence knowledge sharing behavior. Furthermore, organizational climate has a positive impact on knowledge sharing activities [33, 35]. Thus, we suggest the following hypothesis:

H3: Organizational climate has a positive impact on knowledge sharing behavior.

Organizational climate and subjective norms

Organizational climate is considered as antecedent of subjective norms [15]. Organizational climate is common judgment of its employees about an institution as a whole [48]. It is depicted that positive judgment about organization may influence employees performance [34]. Prior studies indicated there is positive relationship between organizational climate and s subjective norms [13, 15, 43, 47]. Thus, the following hypothesis is proposed.

H4: Organizational climate has a positive impact on subjective norms.

Subjective norms and knowledge sharing behavior

Subjective norms are antecedents of intention towards particular behavior. Subjective norms have indicated a significant correlation with knowledge sharing intention in the previous literatures [6, 12, 17, 27, 49]. Perceived subjective norms are signs of individuals' readiness to conform to other organizational members [47]. Because people prefer to be recognized and comprehended by other organizational members, positive perception on subjective norms play significant role in establishing their intention to share knowledge [10, 50]. In return, they will engage in knowledge sharing behavior. Therefore the following hypothesis formulated:

H5: Subjective norms have a positive impact on knowledge sharing behavior

Mediating role

According to the previous studies, subjective norms play significant role in mediating effects [15, 28]. [30] found that subjective norms positively and significantly mediate the relationship between community features (shared goal, care) and knowledge sharing intention. However, they didn't further confer the consequences, such as personal values, organizational climate on knowledge sharing behavior. For instance, [28] found that subjective norms mediate the positive effect on organization climate and intention to share knowledge. Based on the previous studies discussed above, there are few studies that converse the relationship between personal values, organizational climate and knowledge sharing behavior, therefore, the present study assert that it is essential for scholars to explore the relationship between personal values, organizational climate and knowledge sharing behavior by investing its mediators. Based on the prior literatures, [15] both personal values and organizational climate contribute to subjective norms and subjective norms contribute to knowledge sharing [51]. According to the social exchange theory [20], employees who abide with norms of reciprocity as an outcome of trust, perceive high subjective norms, hence, producing intended behavior. Therefore, the relationship

between personal values, organizational climate and knowledge sharing behavior may be mediated by subjective norms. Therefore, hypothesize 6 and 7 are proposed:

H6: Subjective norms significantly mediate the relationship between personal values and knowledge sharing behavior.

H7: Subjective norms significantly mediate the relationship between organizational climate and knowledge sharing behavior.

Research methodology

Sampling and data collection

The population for the present study consisted of healthcare professional in Tanzania public hospital. The study used stratified random sampling in choosing hospitals in the survey. For this study, the unit of analysis is at the individual level (healthcare professionals) and the primary data for this study were collected by distributing a questionnaire. A total of 650 questionnaires were distributed to among healthcare professionals in five hospitals between August 2015 and December 2015. Questionnaires were personally delivered, a collation date was arranged, and it was after three weeks. There were cases, whereby some respondents preferred to fill questionnaires immediately. In other cases, some respondents did not complete to fill questionnaires within agreed period of time, so those questionnaires were collected at late time, exceeded one month and half.

There were nine pages in the questionnaire, including cover page, and demographic profile of the respondents on the last. The cover page briefly described the motive and intention of this study assured confidentiality. There is briefly introductory note, guiding respondents about the requirement of the questionnaire. The questionnaire was divided into five sections including the respondent profile. Each section included short introduction, found at the beginning of each section, illustrating the requirements of the specific section. A total of 472 questionnaires were returned and usable, with response rate of 72 percent.

Measures

The measures established in order to operationalize the constructs of the model of research which were adopted from prior literature on knowledge sharing behavior [32, 52, 54]. This study developed content validity through pre-testing of the questionnaire [8]. Initially, we conducted content validity by involving three experts in knowledge sharing behavior, who mainly checked questionnaire phrase, wording, organizing of the questionnaire and understanding on the questionnaire. Feedbacks from experts made us slightly modify questionnaire before final format to ensure content validity.

The present study measured four constructs:

- 1) Knowledge sharing behaviour (KSB)
- 2) Personal values (PVs)
- 3) Organizational climate (OC)
- 4) Subjective norms (SNs)

The constructs in this study were measured by utilizing multiple items, and we employed five-Likert scale to measure all items [17], as recommended by prior literature. Knowledge sharing behavior was measured by twenty eight items adapted from [54], personal values were measured by four items from [30], organizational climate was measured by eight items from [51] and lastly, subjective norms were measure by five items adapted from [28].

Results and data analysis

Scale validation

Individual item reliability

We assessed individual item reliability by checking factor loadings of each measurement construct. The factor loading refers to the path coefficient from a latent construct to item variable [54]. The factor loading which is not performing well should be eliminated. The minimum value for factor loading to be maintained is 0.40. In this study, the factor loading of all items was ranging from 0.725 to 0.881. Therefore, it shows that all items of KSB, PVs, OC, and SNs constructs are performing the good job of measuring underlying constructs.

Table 1

Items Loadings, Composite Reliability, and Average Variance Extracted (AVE)

	Items	Loadings	Composite Reliability	AVE
	KBS7	0.793		
	KSB10	0.794		
KSB O	KSB6	0.791	0.922	0.702
	KSB8	0.826		
	KSB9	0.795		
	KSB16	0.785		
KSB P	KSB17	0.776	0.899	0.640
	KSB18	0.806		
	KSB22	0.833		
	KSB23	0.881		
KSB C	KSB24	0.849	0.832	0.622
	KSB25	0.839		
	KSB26	0.786		
	KSB27	0.725		
KSB W	KSB4	0.861	0.852	0.659
	KSB5	0.842		
	OC1	0.785		

Org. Climate	OC3	0.781	0.864	0.613
	OC7	0.783		
	OC8	0.784		
	PVs1	0.850		
	PVs2	0.867	0.909	0.714
Personal Values	PVs3	0.872		
	PVs4	0.789		
	SNs1	0.817		
Subjective norms	SNs2	0.845	0.867	0.620
	SNs3	0.744		
	SNs5	0.740		

Internal consistency reliability

Internal consistent reliability refers to the degree to which items interrelate to one other [54]. Internal consistency entails that multiple items weigh the same construct, and interrelate with one another. We determined internal consistency reliability by using composite reliability of each latent construct and we adopted rule of thumb which state that the composite reliability of each latent construct should be ranging from 0.70 and above[55]. As indicated in Table 1, above, the composite reliability coefficients of KSBO, KSBP, KSBC, KSBW, OC, PVs, SNs are 0.922, 0.899, 0.832, 0.852, 0.864, 0.909, 0.867 respectively, which show the items execute very well in terms of KSBO, KSBP, KSBC, KSBW, OC, PVs SNs reliability.

Convergent Validity

Convergent validity is the degree to which the measure correlates with other measures that were developed to measure the same construct [54]. We used average variance extracted (AVE) in order to determine convergent validity, and AVE of each latent construct should exceed 0.5. Table 1, the AVE values of KSBO, KSBP, KSBC, KSBW, OC, PVs, and SNs exceeded 0.5 ranging from 0.613 to 0.714. Thus, this study achieved sufficient convergent validity.

Discriminant validity

Discriminant validity is the extent to which measures are not correlated to the similar measures developed to measure different constructs [54]). We assessed discriminant validity by utilizing the square roots of AVE, and we adopted rule of thumb we state that the square root of AVE of each latent construct should be greater than its correlation and correlation in other constructs. As indicated in Table 2, the square roots of AVE are shown in bold faces which demonstrate discriminant validity of KSBs, OC, PVs and SNs. All square roots of AVE values were higher than their correlations and correlations in other constructs.

Table 2

Discriminant Validity

Construct	KSBC	KSBO	KSBP	KSBW	OC	PVs	SNs
KSBC	0.838						
KSBO	0.304	0.800					
KSBP	0.393	0.330	0.789				
KSBW	0.486	0.473	0.286	0.812			
OC	0.435	0.358	0.341	0.299	0.783		
PVs	0.190	0.345	0.333	0.056	0.293	0.845	
SNs	0.466	0.436	0.402	0.305	0.588	0.436	0.788

Hypotheses testing

Structural Model

We assessed estimation of the model by examining the significance path coefficient of each hypothesis in the research model. Table 3, shows the findings of hypothesis testing of the structural relationships among the latent constructs. The results indicated that all hypothesized in this study have significant impact, which portrays all hypothesized were supported. Providing, personal values ($\beta=0.098$, $\rho < 0.05$), organizational climate ($\beta=0.249$, $\rho < 0.01$), subjective norms ($\beta=0.373$, $\rho < 0.01$) have positive impact on knowledge sharing behaviour. Supplying both personal values ($\beta=0.285$, $\rho < 0.01$) and organizational climate ($\beta=0.508$, $\rho < 0.01$) have positive relationship with subjective norms. It is also both mediating effects of subjective norms have positive mediating impacts ($\beta=0.191$, $\rho < 0.01$) and ($\beta=0.107$, $\rho < 0.01$) on the relationships between personal values and knowledge sharing behavior and organizational climate and knowledge sharing behavior respectively. Therefore, we concluded that our research model is supported by data collected.

Table 3

Hypothesis Testing (Direct Effect and Mediating Effects)

Hypothesis	Beta	Standard Error (STERR)	T Statistics	P Values	Decision
PVs -> KSB	0.098	0.048	2.060	0.020**	Supported
PVs -> SNs	0.285	0.038	7.540	0.000***	Supported
OC -> KSB	0.249	0.054	4.587	0.000***	Supported
OC -> SNs	0.508	0.040	12.830	0.000***	Supported
SNs -> KSB	0.373	0.055	6.767	0.000***	Supported
PV->SNs->KSB	0.191	0.032	5.970	0.000***	Supported
OC->SNs->KSB	0.107	0.023	4.737	0.000***	Supported

Note: ***Significant at 0.01 **significant at 0.05, *significant at 0.1.

Discussion and conclusions

This study investigated the direct and mediating effects. The direct effects organizational climate were on the relationship between personal values, organizational climate and subjective norms on knowledge sharing behavior, as well as the relationship between personal values, and organizational climate on subjective norms. The mediating effects based on mediating impacts of subjective norms on the relationship between personal values, organizational climate and knowledge sharing behavior.

The present study revealed that personal values, organizational climate and subjective norms have positive impacts on knowledge sharing behavior. This study also portrayed subjective norms was positively affected by personal values and organization. Furthermore, the current study presented new evidence that subjective norms mediate the relationships between personal values, organizational climate and knowledge sharing behavior in healthcare sector. It provides understanding of knowledge sharing behavior linked to personal values and organizational climate through subjective norms. In line with prior literatures, this paper presents one more of evidence by depicting that, from knowledge sharing perspective, individual and organizational factors are important for knowledge sharing behavior [28, 30, 43, 55]. The present study has contributed to the development of theory on conceptual model which describes the moderating effect of subjective norms on relationship between personal values, organizational climate, and knowledge sharing behavior. There are limited studies in prior literature investigated these relationships and this inadequacy is critical challenge for escalating importance of knowledge sharing behavior for organizations[56].

Prior literature review indicated, there is unclear evidence why there is presence of positive significant effect of personal values and organizational climate on knowledge sharing behavior. Consistency with this statement, the present study is mainly strived to empirically examine the mediating effect of subjective norms on the relationship between personal values, organizational climate and knowledge sharing behavior. In doing so, this study provides evidence of existing of the relationship between personal values, organizational climate and knowledge sharing behavior under mediating an effect of subjective norms.

In our empirical test, we found that personal values have positive significant impact on knowledge sharing behavior. This finding is consistency with previous[13, 17, 30, 56, 57]. It is suggested that in attempting enjoying helping others as antecedent of personal values, employees develop motivation to engage in knowledge sharing behavior[54]. This finding reveals the evidence that employee inclines in enjoying helping others as antecedent of personal values tends to be more helpful in providing knowledge to others.

Furthermore, organizational climate also was found to have positive significant impact on knowledge sharing behavior. The possible explanation for this, when organization emphasizes on favorable organizational climate which characterized with mutual trust, open conversation, and innovativeness, employees will have positive attitude towards knowledge sharing behavior[24]. This finding is supported by the previous studies[12, 15, 30, 43, 58].

The study revealed that, there was positive and significant relationship between subjective and knowledge sharing behavior. It can be winded up that the pressure to engage in knowledge sharing behavior is developed from important people in the institution influence behavior of the employees. Thus, in this study, subjective norms were found among predictors of knowledge sharing behavior in healthcare sector. The finding

is consistent with the previous studies conducted by [15, 27, 30, 43, 58], who found that subjective was the strong predictor of knowledge sharing behavior.

The findings from current study portrayed that subjective norms were positively and significantly influenced by personal values and organizational climate. The possible explanation for this, because personal values tend to generate higher satisfaction and social responsibility. In this scenario, the individual will be able to comply social pressure. This depicts on the existence of the positive relationship between personal values and subjective norms. On hand, organizational climate was depicted as influential factor of subjective norms. It suggests that the greater positive perception on organizational climate, the higher development of subjective norms [15]. The findings are supported by the previous studies [15, 28, 43].

This study provided the findings which revealed that subjective norms had positive and significant mediating impacts on the relationship between personal values, organizational climate and knowledge sharing behavior. It can be suggested that, employees will be more motivated to perform behavior if such behavior is approved by important referent group [36]. In context of knowledge sharing behavior, individual will be motivated to engage in sharing knowledge with other organizational members to the extent that approval from important referent group such as managers and senior employees. Thus, it is when Individuals have positive perceptions on personal values and organizational climate as well as existence of social pressure (subjective norms), they likely to engage in knowledge sharing behavior. The finding is consistent with social exchange theory [47], which emphasizes on benefit exchange and norms reciprocity as an antecedent of subjective norms. Therefore, the findings of this study provided the evidence to why there is positive and significant relationship between personal values, organizational climate and knowledge sharing behavior.

The findings of the present paper have significant implications for managerial practices. This study ascertains that the successful realization of knowledge sharing behavior in healthcare sectors entails personal values, organizational climate and subjective norms. Subjective norms which are social pressure should act as the role model to connect and influence both personal values and organizational climate in order to develop employee's readiness to participate in knowledge sharing behavior. Organizational managers should strive to install knowledge sharing behavior by developing personal values, organizational climate and subjective norms. By developing personal values such as enjoying helping others and organizational climate such as innovation as well creating social pressure as subjective norms, it is likely employees will participate in knowledge sharing behavior [15, 28, 43].

This study faced the following research limitations. First, this study used the cross section as research design and the findings based on theoretical reasoning, it may not draw conclusions on causal relationships of hypothesizes. Further, research is needed to adopt longitudinal design in order to alleviate this setback by drawing causal inferences. Second, the present study adopted self-report as data collection technique which may lead common method variance. Thus, future research should use objective measures of knowledge sharing behavior in order to make verification. Third, the findings of this study cannot be generalized; because the study was carried in Tanzania healthcare institutions to among healthcare professionals. Future research is needed to be conducted in different research contexts and in the different geographical setting in order to validate the findings.

This study has contributed a lot by revealing the findings with positive significance effects of personal value, organizational climate and subjective norms on knowledge sharing behavior. All these factors reinforce the performance of knowledge sharing behavior. This empirical evidence has significant implications for organizational managers and it develops the research on the mediating impacts of subjective norms on the

relationship between personal values, organizational climate and knowledge sharing behavior.

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