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KNOWLEDGE SHARING: INFLUENCES OF INDIVIDUAL CAPABILITIES, ORGANIZATIONAL CLIMATE AND SUBJECTIVE NORMS

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ABSTRACT: *This paper aims to examine the mediating influence of subjective norms on the relationship between individual capabilities, organizational climate and knowledge sharing. The methodology employed is survey of 439 healthcare professionals from five Tanzanian public hospitals. In the present paper, subjective norms mediate the relationship between individual capabilities, organizational climate and knowledge sharing. The findings indicate, both individual capabilities and organizational climate have positively significant influences on knowledge sharing. Also, the findings show that subjective norms mediate the relationship between individual capabilities, organizational climate and knowledge sharing. Future research should avoid common method variance problems at the starting point of the research design by informing respondents that there is no wrong or right answer to the items in the questionnaire and by providing guarantee of confidentiality to the answers during the research process. The results of the present study suggest that employees who positively perceive individual capabilities, organizational climate and subjective norms tend to consider knowledge as a collectively possessed commodity. The findings of the current study show that an institutional culture that promotes individual capabilities, favorable organizational climate and subjective norms will enable knowledge sharing among employees. The present paper has bridged the gaps in the literature on knowledge sharing, individual capabilities, organizational climate and subjective norms into a single model.*

Keywords: *Knowledge sharing, Individual capabilities, Organizational climate, Subjective norms*

1. INTRODUCTION

Knowledge sharing is a relatively new practice that the healthcare sector is trying very hard to institutionalize[1]. It is described as, ‘‘team members sharing task-relevant ideas, information and suggestions with each other’’ [2]. This notion of knowledge sharing relies on the principle that knowledge is not an item that exists beyond the contexts; rather, it is a person’s judgment of an idea or object, and therefore, an individual’s judgment is considered as knowledge which should be shared and codified [3,4]. Knowledge sharing is a most important process among healthcare professionals because it is a basic mechanism for the improvement of both individual and organizational performance[2], [6]. And if knowledge is not shared, the potential resources that exist in individual minds remain effectively underexploited [5].

Knowledge sharing among healthcare professionals is regarded as critical for enhancing the quality of patient care [7].Specifically, tacit knowledge sharing among healthcare professionals, which include sharing of skills, clinical experience, know-who or know-how, is considered as having a significant effect on the superiority of medical diagnosis and treatment [8,9]. The tacit knowledge of healthcare professionals is considered as a most precious outcome of their “experiential know-how” and is related to their clinical experiences in vital situations, it is about “what really works and how to make it work” rather than explicit knowledge of “how things should work” [9]. From the perspective of healthcare management, it is crucial to enhance tacit knowledge sharing among healthcare professionals [9] by nurturing ‘‘an atmosphere of mutual trust in which all staff members can talk freely about safety problems and how to solve them, without fear of blame or punishment’’ (Institute for Healthcare Improvement, 2005).

This paper focuses on knowledge sharing among healthcare professionals. The selection of knowledge sharing in this study is based on its suitability for improving institutional performance [5,2,6]. Although the significances of knowledge sharing is broadly known among institutions as depicted in prior studies, not all institutions employ it to realize superior performance [5]. Therefore, it is opportune to examine whether subjective norms mediate the relationship between individual capabilities, organizational climate and knowledge sharing in healthcare institutions.

Having identified the benefits of knowledge sharing and its determinants for the realization of an institution’s competitive advantage, the present study endeavors to ascertain the mediating effect of subjective norms and individual capabilities as well as how organizational climate facilitates knowledge sharing practice among healthcare professionals. The rationale of this paper is that the relationship between individual capabilities, organizational climate and knowledge sharing effectively exists under the mediating effect of subjective norms.

This paper is organized as follows. The first section focuses on the introduction of the study. The second section discusses the perspective of the research. The third section is based on the review of the previous studies and development of the hypotheses. The fourth section explicates the research method, sample size and measurement and strategies of data analysis. The fifth section depicts research findings and discussion. Finally, the implications of the study and conclusion are provided.

2. HEALTHCARE SECTOR AS THE RESEARCH PERSPECTIVE

This paper utilizes the healthcare sector as the research perspective for the two reasons. First, the healthcare sector is considered to have limited knowledge sharing [10], because

of absence of common medical practices and lack of integrated training programs [11], [12]. This situation worsens the knowledge sharing practice among healthcare professionals [12].Thus, the current study intends to propose the mechanisms which can enable healthcare professionals to share knowledge regardless of their limitations.

Second, the shortage of healthcare professionals in healthcare institutions [13]. It is considered to be a universal problem, including in Tanzania (the focus of this study) which is facing a huge brain drain [14–16]. To overcome the negative consequences, including loss of potential knowledge, it is necessary to promote a knowledge sharing culture among healthcare professionals which enables in transforming individual knowledge into organizational knowledge; it can then be considered as organizational knowledge and no longer individual or private knowledge which resides in individual minds.

Third, the healthcare sector is a knowledge-intensive institution that should persistently learn from errors and make great progress and advances (Adler, 2003; Lin & Stead, 2009). It has been deemed that many medical mistakes are caused by failure to learn from mistakes (Department of Health, 2000), which in turn, is attributed to the demand for knowledge sharing behavior as the mechanism for admitting mistakes and learning from them among healthcare professionals in order to realize excellence in patient care [1].

3. THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

Figure 1 indicates the proposed research model in this study, which has four constructs adopted from previous literature. Individual capabilities refer to the personal ability to engage in knowledge sharing. Organizational climate is the individual's perception of the working environment, including management support. Subjective norms refer to the way that individual thinks others expect him or her to act, and knowledge sharing is the mutual exchange of both tacit and explicit knowledge among organizational members. The hypotheses for the constructs in this study are developed by relying on the following: discussion.

Individual capabilities

Individual capabilities refer to an individual's potential, which include abilities, expertise, commitment and knowledge [17]. Individual capabilities can be a potential mechanism for enhancing the knowledge sharing practice among healthcare professionals. The notion is supported by previous empirical studies [18,19,20]. Therefore, we propose the following hypothesis:

***H1*:** Individual capabilities positively relate to knowledge sharing.

Organizational climate

Organizational climate refers to an individual's perceptions of the organizational environment [21]. Organizational climate comprises feelings, ideas and behavior of subordinates at a particular time [21]. Organizational climate is an important mechanism for understanding individuals feelings regarding their organization and this is a popular area of study among researchers [22], [23]. Bock *et al.* [22] in their study, portray that organizational climate can initiate knowledge sharing willingness. Thus, we hypothesize as follows:

***H2*:** Organizational climate positively relates to knowledge sharing

4. MEDIATING ROLE

In prior literature, subjective norms have been studied to predict shared goals and knowledge sharing intention [22], [24], [25]. However, subjective norms have not been studied as mediating individual capabilities, organizational climate and knowledge sharing. Therefore, this study intends to examine the mediating effect of subjective norms on the relationship between individual capabilities, organizational climate and knowledge sharing. According to the social influence theory [26], employees who comply with social norms and rules and regulations, perceive greater subjective norms, thus developing potential behaviour. Therefore, the relationship between individual capabilities, organizational climate and knowledge sharing might be mediated by subjective norms. Therefore, we propose Hypotheses 3 and 4:

***H3*:** Subjective norms positively mediate the relationship between individual capabilities and knowledge sharing

***H4*:** Subjective norms positively mediate the relationship between organizational climate and knowledge sharing.

5. METHOD

Data collection procedures and respondents

Institutions selected for this study are from the healthcare sector, where knowledge sharing, particularly tacit knowledge, is considered important because of the interaction among healthcare professionals [27]. A number of healthcare institutions were approached in Tanzanian public hospitals, with consent from the Tanzanian National Institute of Medical Research (NIMR); we obtained five hospitals from 237 public hospitals across the country.

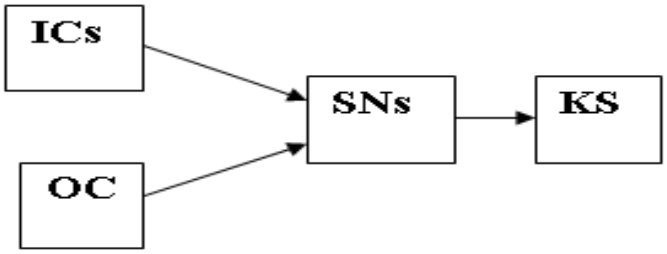

Figure 1 Hypothesized model

ICs= Individual Capabilities, OC= Organizational climate, SNs=Subjective Norms, KS=Knowledge Sharing

A total of 650 survey questionnaires were distributed to the potential respondents, and 439 questionnaires were returned and useable, equivalent to 68 percent. The average respondents' age is 35 years and 67.2 percent are female and 32.8 percent are male. The respondents are from five hospitals which drawn from 237 public hospitals located in four zones of the county. The respondents have been serving in the current healthcare institutions for an average of five years and they have been in their current position for an average of six years. Majority of the respondents are nurses (74.3 percent) and 25.3 percent are Doctors. As for

educational level, 14.8 percent of the respondents have certificates, 51.4 percent are diploma holders, 30.5 have bachelor's degree, 2.5 percent have master's degree and five percent have a Doctorate.

Measures

This study developed the scale of knowledge sharing. These items for knowledge sharing were adopted from Yi (2009) and reported in previous studies [29]. Also, in this study, the items for individual capabilities, organizational climate and subjective norms were adopted from [30, 31, 5], respectively. A five-point Likert scale was utilized for all the items in this study, ranging from strongly disagree, disagree, neutral, agree to strongly agree.

6. RESULTS

A measurement model analysis was conducted on the items that were employed to measure individual capabilities, organizational climate, subjective norms and knowledge sharing. The four assumptions, i.e., individual items reliability, internal consistency reliability, convergent validity and discriminant validity, were assessed by Partial Least Squares-Structural Equation Modelling (PLS-SEM). Individual item reliability was assessed by checking factor loadings of each construct, and the satisfactory factor loadings for individual capabilities, organizational climate, subjective norms and knowledge sharing were determined with a cut-off of 0.4 [32]. Thus, the items that were used to measure individual capabilities, organizational climate, subjective norms and knowledge sharing are satisfactory.

Internal consistency reliability was assessed by employing composite reliability coefficient of each latent construct, with a cut-off of 0.70 [33]. Internal consistency reliability for individual capabilities, organizational climate, subjective norms and knowledge sharing are sufficient. Convergent validity was determined by using average variance extracted (AVE) of latent construct, with a cut-off of 0.5 [34]. Table 1 indicates individual items reliability (loadings); internal consistency reliability (composite reliability); and convergent validity (AVE).

Discriminant validity was determined by using square roots of AVE of each latent construct, with cut-off of square root of each latent construct being greater than its correlation and correlation with other constructs [34]. This study managed to achieve satisfactory discriminant validity. Table 2 shows discriminant validity.

A structural model was analyzed in order to test the proposed hypotheses. For the analysis, individual capabilities and organizational climate were employed to predict knowledge sharing. On the other hand, subjective norms were used to mediate the relationship between individual capabilities, organizational climate and knowledge sharing. The findings of the present analysis are portrayed in Table3. As indicated in Table 3, individual capabilities have a significantly positive relationship with knowledge sharing (β=0.214, ρ<0.01); and organizational climate has a positive relationship with knowledge sharing (β=0.233, ρ<0.01).

Table 1: **Items Loadings, Composite Reliability, and Average Variance Extracted (AVE)**

Constructs	Items	Loadings	C R	AVE
	KSB6	0.791		
	KSB8	0.826		
KSBO	KSB9	0.795	0.899	0.64
	KBS7	0.793		
	KSB10	0.794		
	KSB16	0.784		
KSBP	KSB17	0.777	0.832	0.622
	KSB18	0.806		
	KSB22	0.833		
	KSB23	0.881		
KSBC	KSB24	0.849	0.922	0.702
	KSB25	0.839		
	KSB26	0.786		
	KSB2	0.725		
KSBW	KSB4	0.861	0.852	0.659
	KSB5	0.842		
	ICs2	0.988		
	ICs1	0.83		
Ics	ICs3	0.843	0.925	0.756
	ICs4	0.803		
	OC1	0.785		
	OC3	0.781		
OC	OC7	0.783	0.864	0.613
	OC8	0.785		
	SNs1	0.816		
SNs	SNs2	0.845	0.867	0.62
	SNs3	0.744		
	SNs5	0.74		

Table2: Descriminant Validity

Construct	ICs	KSBC	KSBO	KSBP	KSBW	OC	SNs
ICs	0.869						
KSBC	0.314	0.838					
KSBO	0.327	0.304	0.8				
KSBP	0.445	0.393	0.33	0.789			
KSBW	0.162	0.486	0.473	0.286	0.812		
OC	0.344	0.435	0.358	0.341	0.299	0.783	
SNs	0.464	0.466	0.436	0.402	0.305	0.588	0.788

As shown also in Table 3, subjective norms positively mediate the relationship between individual capabilities and knowledge sharing (β=0.097, ρ<0.01), as well as the relationship between organizational climate and knowledge sharing (β=0.161, ρ<0.01). Therefore, all four hypotheses are supported.

Table3: Hypothesis Testing (Direct Effect and Mediating Effects)

Construct	Beta	Stand Error	T Statistics	P Value
ICs -> KSB	0.214	0.043	5.021	0.000***
OC -> KSB	0.233	0.051	4.595	0.000***
SNs -> KSB	0.328	0.051	6.389	0.000***
ICs->SNs->KSB	0.097	0.021	4.69	0.000***
OC->SNs->KSB	0.161	0.029	5.608	0.000***

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

7. DISCUSSION

The findings of the present study are similar to the hypothesized direct effect of individual capabilities and organizational climate on knowledge sharing [22; 18, 21, 23]. . The findings of the present study are also consistent with hypothesized mediating effect of subjective norms are the building blocks for social exchange and social capital, which concludes the belief in good intentions, dependability, and capability [35]. How employees feel about their institution and their core workers tend have significant influence on discretionary knowledge sharing [36].

Employees tend to be more motivated to participate in cooperative behavior, including knowledge sharing behavior, when a relationship is characterized by the presence of subjective norms [22,23]. Based on the social nature of knowledge sharing behavior, individual capabilities, organizational climate and subjective norms are major determinants of the knowledge sharing practice among employees.

In addition to its mediating effect, the role of subjective norms among employees in knowledge sharing is displayed in strapping individual capabilities and organizational climate to knowledge sharing. Subjective norms are the demonstration of the beliefs about normative expectations of important people to the person and the motivation he or she has to conform (Castañeda, 2015). Subjective norms tend to promote an individual's intention to share knowledge [22]. Individual capabilities and organizational climate encourage and facilitate open communication for knowledge sharing among employees [18, 23]. In support of the notion that people with positive perceptions of individual capabilities and organizational climate tend to be motivated to provide an organization the benefits, including knowledge sharing practice without the hesitation (Aselage & Eisenberger, 2003; Li, Zhu, & Luo, 2010).

8. THEORETICAL AND PRACTICAL IMPLICATIONS

The present study makes an original contribution to the existing body of knowledge on knowledge sharing. The study highlights the significance of individual, organizational and social factors in understanding knowledge sharing in an institution. The findings of the present study propose that employees who positively perceive individual capabilities, organizational climate and subjective norms tend to consider knowledge as a collectively possessed commodity. In this scenario, their knowledge sharing is reflective of a model of reciprocal social exchange [36].

The findings from the current study display that both exogenous constructs strongly influence knowledge sharing. Particularly, both individual capabilities and organizational climate seem to promote knowledge sharing. As such, it is vital to note that subjective norms can bridge the gap found in individual capabilities, organizational climate and knowledge sharing.

The findings of this study show that an institutional culture that promotes individual capabilities, favorable organizational climate and subjective norms will assist knowledge sharing among employees. Building a collaborative culture needs management to develop an organizational environment that is favorable for the propagation of knowledge sharing. It comprises promoting innovation, empowering knowledge capabilities, supporting employees and developing an environment that can permit knowledge sharing among members.

9. LIMITATIONS AND FUTURE RESEARCH

This study has a number of limitations. First, the findings of this study rely on self-report, employing a single questionnaire to measure all variables. Therefore, common method variance may influence the conclusion, which is a common problem in social science research, because it produces inflated correlations. Future research should avoid common method variance problems at the starting point of the research design as we have considered in this study. We minimized the problem of common method variance by informing our respondents that there is no wrong or right answer to the items in the questionnaire used in this study. We gave them guarantee of confidentiality to the answers provided to us during the research process [37]. Second, it is considered that a survey-based data collection is appropriate tool in exploratory research because it is a popular research method in social science [38].

The cross-sectional design employed in this study does not permit the making of inferences on causality. Therefore, we propose for future research to use a longitudinal design in order to enable causality to be inferred.

Future studies can include broadening the scope of this study in order to allow generalization of the findings. Since the present research is conducted on only health care professionals at Tanzanian public hospitals, the findings must be confirmed by carrying out further studies focusing on non-healthcare professionals in different geographical settings in order to enhance the generalizability of the findings.

10. CONCLUSION

This study explored the influence of individual capabilities, and organizational climate on knowledge sharing in Tanzanian healthcare sector. Theoretical model was empirically analyzed using multiple regression method. The findings show that both individual capabilities and organizational climate were positively and significantly related to knowledge sharing, which are consistent with existing literature. The present study also further examined the mediating effect of subjective norms on the relationship between individual capabilities, organizational climate and knowledge sharing and found that subjective norms have positive and significant mediating effect on the relationship between individual capabilities, organizational climate and knowledge sharing.

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