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ANTECEDENTS OF KNOWLEDGE SHARING AMONG SERVICE EMPLOYEES

Abstract:

The aim of this study is to investigate the antecedents of knowledge sharing among employees. Tacit and explicit knowledge sharing is of vital importance to organizations, enabling them to create value and sustain competitive advantage. This paper focuses on knowledge sharing as a reciprocal process of knowledge exchange and examines the factors that potentially have an impact on knowledge sharing. In this context, the effects of attitude toward knowledge sharing, subjective norm, organizational culture and organizational justice on 'intention to share knowledge' are examined. 'Attitude toward knowledge sharing' refers to an employee's general assessment on knowledge sharing in organizational context. 'Organizational culture' consists of assumptions, perspectives, norms and values shared by employees and it contributes to the unique social and psychological environment of an organization. The term 'organizational justice' is characterized as the extent to which employees perceive workplace procedures, interactions and outcomes to be fair in nature. The 'subjective norm' is defined as perceived social pressure to perform or not perform a behavior. Based on these conceptualizations, a survey was conducted on a sample of 281 employees working for 2 service industry businesses in a province of Turkey. The data were gathered by structured question forms. Attitude toward knowledge sharing and intention to share knowledge were measured with 5 items each, while subjective norm was measured with 3 items. Organizational culture and organizational justice were measured with 6 items each. All scales were 5-point Likert-type scales whose reliability and validity were supported by previous researches by various scholars. In addition to the aforementioned variables, gender, age, managerial role, education and workplace tenure were considered as control variables that might have influence on intention to share knowledge. The data were analyzed with LISREL 8.7 software. First, confirmatory factor analyses were applied and the underlying factor structures of the variables were determined. Second, the research model was tested with path analysis and the proposed relationships between variables were examined. Last, the results are reported and theoretical and practical implications of the study were discussed.

Keywords:

attitude toward knowledge sharing, intention to share knowledge, subjective norm, organizational culture, organizational justice, service employees, survey, Turkey.

JEL Classification: M10

INTRODUCTION

Knowledge is a strategically important input in today's economy and generating and sharing valuable knowledge is the basic source of sustainable competitive advantage. The main objective of knowledge management is to turn individual knowledge into organizational knowledge. Knowledge sharing among employees is of vital significance to value creation in organizations and increasing number of researchers has been focusing on the antecedents of this process. Despite the growing interest, there are limited studies regarding the socio-cultural and cognitive antecedents of knowledge sharing among employees.

The main purpose of this study is to investigate some socio-cultural antecedents of knowledge sharing and to evaluate the relationships between these antecedents. For this purpose, a research model including organizational culture, subjective norms and attitude toward knowledge sharing as antecedents of intention to share knowledge was developed and empirically tested on a sample composed of 281 employees working at shopping malls in a province of Turkey. After examining the validity and reliability of the research model, the relative impact of each of these antecedents are evaluated and discussed.

THEORETICAL FRAMEWORK

Definition of Knowledge and Knowledge Sharing (KS)

Knowledge is a concept acknowledged to be deeper and richer than data or information (Davenport and Prusak, 1998) and in today's economy it can be identified as the most important asset of the organization. Various researchers have defined this broad concept in different ways and some of these definitions are presented in Table 1 below:

Table 1: Selected Definitions of Knowledge

Author(s)	Definition of Knowledge
Starbuck (1992)	the stock of expertise
Purser and Pasmore (1992)	an unity of facts, models, schemes, ideas, opinions, and intuition used for decision making processes
Nonaka (1994)	a justified true belief
Ruggles (1998)	a mixture of information, experience, value standard, and norm
Liebowitz and Beckman (1998)	a situation, fact, example, event, rule, conjecture, or model, capable of enhancing the understanding or effects of in a specific field or a subject
Elliott and O'Dell (1999)	information in action

Source: Lin et al., 2012.

In accordance with the definitions above, knowledge can be defined as an umbrella concept including information, ideas and expertise relevant for tasks performed by individuals, teams, work units and the organization as a whole (Bartol and Srivastava, 2002). As a vital input for all organizational processes, knowledge must be shared.

Knowledge sharing (KS) takes place when organizational members share organization-related information, ideas, suggestions and expertise with each other. It includes exchanging and discussing knowledge with internal or external groups via all

sorts of channels, aiming to expand the value of knowledge utilization during the inter-change of knowledge. Organizations tend to leverage their knowledge-related competencies to gain sustainable competitive advantage. KS exists in the absence of diminishing marginal utility, namely, the more employees share their knowledge, the more synergistic value will be created (Lin et al, 2012).

Knowledge is generated and initially stored within the mind of employees. Without their employees, firms are unable to develop knowledge. As soon as employees start to treat knowledge as personalized assets, they tend to avoid sharing behaviour. It is unnatural for any person to conduct any sort of KS, because people treat owned knowledge as valuable and significant resources of competitiveness (Lin et al, 2012). Although firms which try to increase KS among their employees generally invest in a variety of new technologies (e. g. electronic databases, network systems and software), there may be more significant predictors of KS than the availability of technology (Connelly and Kelloway, 2003). Recently, socio-cultural and cognitive factors have been considered to have a significant role in explaining KS among employees.

Antecedents of Knowledge Sharing

In this study, organizational culture, attitude toward knowledge sharing and subjective norm are considered as antecedents of intention to share knowledge. An organization's culture, which is socially learned and transmitted by the members of the organization, consists of the practices, symbols, values and assumptions that these members share with regard to appropriate behaviour. Creating a knowledge sharing culture is one of the main concerns when devising a knowledge management program, because without a proper atmosphere in organizations, other attempts to share knowledge might be pointless. A meagre social climate in an organization might lessen the level of engagement in KS (Van Den Hooff and Van Weenen, 2004) and lack of an aspiring culture to communicate and explore new ideas may become a major barrier to KS. Organizational culture can influence KS in two distinct ways (Cabrera and Cabrera, 2005). First, it can influence KS by creating an environment in which there are strong social norms regarding the importance of sharing one's knowledge with others. A second way in which organizational culture influences KS is that it creates an environment of caring and trust that is important in the emergence of attitudes toward KS.

Theory of Planned Behaviour (TPB) can be used as a theoretical guide to explain intention to share knowledge. TPB asserts that behaviour is determined by behavioural intention and this intention is determined by attitude toward behaviour and subjective norm (Ajzen, 1991). Attitude toward behaviour, reflecting one's favourable/unfavourable feelings for performing behaviour, influence a person's evaluation of a particular behaviour (Blue et al., 2001). So attitude toward KS is a significant predictor of intention to engage in KS. Perceived subjective norms are indicators of people's willingness to comply with others (Blue et al., 2001). Since people like to be identified and accepted by other members of their organisation, perceived subjective norms play a key role in forming their intention to share knowledge (Sun and Scott, 2005; Tohidinia and Mosakhani, 2010). Subjective norms have shown a significant relationship with knowledge sharing intention in a number of studies (e.g. Ryu et al., 2003; Lin and Lee, 2004). Subjective norm impacts people's intention to share knowledge; that is, people who perceive greater social pressure to share knowledge will intend to share knowledge more.

RESEARCH METHODOLOGY

The aim of this study is to examine the antecedents of KS and to develop and confirm a model explaining the relationships among these antecedents. The sample

composed of 281 employees working at shopping malls in Erzurum (a province of Turkey). Employees comprising the sample are selected through convenience sampling technique. KS among employees of shopping malls is very important since the impact of KS will directly be reflected to the customer satisfaction.

The research model is shown in Figure 1.

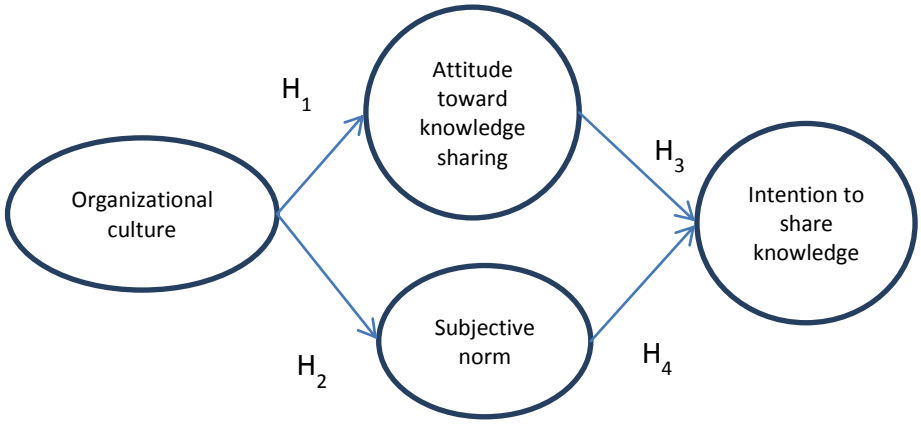

Figure 1: Research Model

The hypotheses based on this model are as follows:

H_1: The extent to which the organization's culture supports knowledge sharing positively influences the attitude toward knowledge sharing.

H_2: The extent to which the organization's culture supports knowledge sharing positively influences subjective norm regarding knowledge sharing.

H_3: Attitude toward knowledge sharing positively influences intention to share knowledge.

H_4: Subjective norm regarding knowledge sharing positively influences intention to share knowledge.

In order to test the hypotheses above, data were gathered through questions forms. Question form consists of 2 groups of questions. The first group includes questions about demographic characteristics of the employees (gender, age, managerial role, education level and organizational tenure). The second group includes questions measuring dependent and independent variables. All dependent and independent variables were measured using scales that proved to be both reliable and valid in former studies. Also, all scales measuring dependent and independent variables are 5 point Likert type scale where 1 refers to 'strongly disagree' while 5 refers to 'strongly agree'. The origin of the scales and the number of items they include are displayed in Table 2 below:

Table 2: Scales

Scale	Number of items	Source
Attitude toward knowledge sharing	5	Tohidinia and Mosakhani, 2010 (adapted from Ajzen, 2002)
Intention to share knowledge	5	Bock et al., 2005.
Subjective norm	3	Tohidinia and Mosakhani, 2010. (adapted from Ajzen, 2002 and So and Bolloju, 2005)
Organizational culture	6	Gold et al., 2001; Hooff and Huysman, 2009.

FINDINGS

Descriptive statistics for demographic variables are summarized in Table 3:

Table 3: Descriptive Statistics for Demographic Variables

Characteristic		***f***	***(%)***	**Characteristic**		***f***	***(%)***
Age	< 25	**175**	**63,2**	**Gender**	Female	129	46,6
	26-30	61	22,0		Male	**148**	**53,4**
	31-35	19	6,9	**Education level**	High school or below	80	29,6
	36-40	13	4,7		University	**184**	**68,1**
	40<	9	3,2		Master/ Doctorate	6	2,2
Managerial role	Yes	76	30,0	**Organizational tenure**	< 1 year	115	41,5
	No	**177**	**70,0**		1year-4 years	**131**	**47,3**
					5-8 years	23	8,3
					9 years or more	8	2,9

* Due to missing data, the total frequencies of some variables are not equal to sample size.

As seen in Table 3, 53 % of respondents are male, 63 % are under 25, 68 % have graduate degree, 30 % have managerial role and 47 % have been working in this organization for 1 to 4 years.

After data collection, a two-step structural equation modeling (SEM) procedure proposed by Anderson and Gerbing (1988) is employed with LISREL 8.7 software. The first step of the procedure examines scale validity from the measurement model using confirmatory factor analysis (CFA), while the second step focuses on hypotheses testing using the structural model. CFA was applied to all constructs

separately and they exhibited good fit. Then the convergent and discriminant validity of the whole measurement model was analysed.

The results of confirmatory factor analyses are summarized in Table 4, Table 5, Table 6 and Table 7.

Table 4: CFA Results -Attitude toward KS

Fit Index	Scores	Model construct	Measurement Item	Standardized estimates	t-value
χ^2	10,08	Attitude toward knowledge sharing	AT1	0,19	24,27
d.f.	5		AT2	0,17	21,93
P	0,07		AT3	0,20	21,10
χ^2/d. f.	2,016		AT4	0,25	17,06
GFI	0,95		AT5	0,30	15,76
AGFI	0,84				
RMSEA	0,071				
CFI	1,00				
NNFI	0,99				
NFI	0,99				

Table 5: CFA Results- Intention to Share Knowledge

Fit Index	Scores	Model construct	Measurement Item	Standardized estimates	t-value
χ^2	9,81	Intention to share knowledge	IN1	0,33	15,57
d.f.	5		IN2	0,18	21,85
P	0,08		IN3	0,17	20,45
χ^2/d. f.	1,96		IN4	0,62	9,63
GFI	0,97		IN5	0,43	11,39
AGFI	0,91				
RMSEA	0,070				
CFI	0,99				
NNFI	0,99				
NFI	0,99				

Table 6: CFA Results- Supportive Organizational Culture

Fit Index	Scores	Model construct	Measurement Item	Standardized estimates	t-value
χ^2	12,93	Supportive Organizational Culture	SOC1	0,36	12,85
d.f.	9		SOC2	0,19	17,02
P	0,16		SOC3	0,33	13,71
χ^2/d. f.	1,44		SOC4	0,30	14,82
GFI	0,95		SOC5	0,32	14,42
AGFI	0,87		SOC6	0,47	10,36
RMSEA	0,047				
CFI	1,00				
NNFI	1,00				
NFI	0,99				

Table 7: CFA Results- Subjective Norm Regarding KS

Fit Index	Scores	Model construct	Measurement Item	Standardized estimates	t-value
χ^2	0	Subjective norm	SN1	0,20	20,38
d.f.	0		SN2	0,17	16,15
χ^2/d. f.	-		SN3	0,28	15,86
P	1,00				
GFI	-				
AGFI	-				
RMSEA	0,000				
CFI	-				
NNFI	-				
NFI	-				

Comparing the fit indexes in Table 4, Table 5, Table 6 and Table 7 with the acceptable fit values in Table 8 below, it is realized that all constructs exhibited good structural fit.

Table 8: Acceptable and Good Fit Values

Fit Index	*Acceptable Value*	*Good Fit Value*
χ^2	-	-
d.f	-	-
χ^2/d.f.	2< χ2/df≤5	0≤ χ^2/df ≤2
GFI	0,85≤GFI≤0,89	0,90≤
AGFI	0,85≤AGFI≤0,89	0,90≤
RMSEA	0,06≤ RMSEA≤0,08	≤0,05
CFI	0,95≤CFI≤0,96	0,97≤
NNFI	0,95≤ NNFI	
NFI	0,90≤NFI≤0,94	0,95≤

Source: Meydan and Şeşen, 2011.

After confirming the dimensional structure of each construct with CFA, the reliability and convergent validity of the whole model was analyzed and the results are summarized in Table 9:

Table 9: Reliability and Convergent Validity Indicators

Constructs	Indicators /Items	Factor loading	Composite Reliability	AVE	Cronbach's alpha
Attitude toward KS	AT1	0,91	0,95	0,79	0,955
	AT2	0,91			
	AT3	0,89			
	AT4	0,88			
	AT5	0,85			

Intention to share knowledge	IN1	0,82	0,90	0,65	0,912
	IN2	0,91			
	IN3	0,89			
	IN4	0,63			
	IN5	0,76			
Subjective norm regarding KS	SUB1	0,88	0,91	0,78	0,903
	SUB2	0,92			
	SUB3	0,84			
Supportive organizational culture	OCUL1	0,78	0,93	0,68	0,924
	OCUL2	0,87			
	OCUL3	0,84			
	OCUL4	0,83			
	OCUL5	0,85			
	OCUL6	0,78			

As seen in Table 9, the internal reliability values of the scales are high since Cronbach's alphas are higher than 0.70 for all constructs (Hair et al, 1998). For convergent validity, factor loadings should be significant and exceed 0.50 (Straub, 1989), composite reliabilities should exceed 0,60 (Bagozzi and Yi, 1988) and the average variance extracted (AVE) should be more than 0,50 for all constructs (Fornell and Larcker, 1981). In this model, all factor loadings and composite reliabilities are within acceptable ranges and significant at the 0,01 level.

To assess discriminant validity, Fornell and Larcker's approach was utilized (Fornell and Larcker, 1981). In this approach, the AVE for each construct should be higher than the squared correlation between the construct and any of the other constructs. Table 10 shows that the measurement model has the satisfactory discriminant validity.

Table 10: Discriminant Validity Indicators

	1	2	3	4
1. Subjective norm regarding KS	0,78			
2. Supportive organizational culture	0,68	0,68		
3. Attitude toward KS	0,34	0,50	0,79	
4. Intention to share knowledge	0,46	0,53	0,77	0,65

Table 11 shows the overall fit indices of the research model. As shown in Table 11, fit indexes all met satisfactory levels and the measurement model fits the data well.

Table 11: Overall fit indices of the path model

Fit Index	Scores
χ^2	223,60
d.f.	148
χ^2**/d. f.**	1,51
p	0,00
GFI	0,88
AGFI	0,84
RMSEA	0,043
CFI	0,99
NNFI	0,99
NFI	0,98

In Table 12, hypothesis testing results are summarized. H_1 and H_2 were not supported while H_3 and H_4 were supported.

Table 12: Hypothesis Testing Results

Hypothesis	Hypothesized path	Standardized coefficient	t value	Result
H_1	SOC-AT	0,50	8.18	Not supported
H_2	SOC-SN	0,68	11,42	Not supported
H_3	AT-IN	0,81*	16,45	Supported
H_4	SN-IN	0,19*	5,04	Supported

*significant at the p<0.05 level

CONCLUSION

The results of this study showed that attitude toward KS and subjective norm are important antecedents of KS. The finding that subjective norm is an antecedent of intention to share knowledge is in accordance with the expectations, since Turkey is generally considered to be a collectivist culture and in collectivist societies, people feel and tend to comply with social pressures more than other societies. So, group interactions and social norms emerging out of these interactions might be investigated to understand the employee's intention to share knowledge in organization. Beside social pressures, attitude toward knowledge sharing is still highly effective in the emergence of intention to share knowledge. Thus, the factors influencing personal attitudes toward KS must be examined to understand intention to share knowledge better. In this study, organizational culture was not found to be a significant antecedent of attitudes toward KS and subjective norms. This finding might be attributed to some reasons. First, the organizations where the employees in the sample work might not have a strong culture or employees might be working for these organizations for a relatively short time. So, they might not perceive the cultural values

and norms deeply. In that case, supportive organizational culture doesn't have a significant impact on attitudes and perceived subjective norms.

Like all studies, this study has some limitations. First, a non-probability sampling technique is used, thus the findings are not generalizable to a greater population. Second, the employees in the sample work at shopping malls and the research was conducted on this branch of service industry. So, in future work, employees from different industries should be examined. Last, data is cross sectional in nature and in order to infer causal relationships, longitudinal studies should be conducted.

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