

## **Predicting Knowledge Sharing Intention Based on Theory of Reasoned Action Framework: An Empirical Study on Higher Education Institution**

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### **Abstract**

*Based on theory of reasoned action (TRA) theoretical framework, this study try to predict individual knowledge sharing intention on higher education institution context. This study also integrate some potential factors (channel richness, psychological forces and organizational climate factors) which supporting individuals' knowledge-sharing intentions Through a field survey of 242 lecturer on public and private university at Purwokerto and Yogyakarta city, this study confirm our hypothesis that attitudes toward knowledge sharing and subjective norms with regard to knowledge sharing as well as organizational climate affect individuals' intentions to share knowledge. This study showed that Perceived Reciprocal Benefits, Perceived Enjoyment in Helping Others, Perceived Reputation Enhancement and channel richness affect individuals' attitudes toward knowledge sharing while organizational climate affect subjective norms. Overall, the results of the study advance prior research in the area of knowledge sharing by shedding light on the determinants of knowledge sharing behaviors of knowledge workers. These insights could be used by university in developing work environments that are conducive for knowledge worker to share their knowledge.*

**Keyword:** Knowledge sharing intention, TRA, Knowledge worker, attitude, university.

### **Introduction**

Knowledge sharing has been recognized as a positive force for the survival of an organization. Yet, the factors that promote or discourage knowledge sharing behaviors in the organizational context are poorly understood (Bock et al., 2005; Connelly and Kelloway, 2003; Ruggles, 1998). Identification of factors that motivate employees to share knowledge for the benefit of other employees and the firm is regarded as a high priority issue for organizations (Hall, 2001; Smith and Farquhar, 2000; Prusak, 1999; Boisot and Griffiths, 1999). While the factors that influence knowledge sharing behaviors of employees can be speculated, it is crucial that we carefully examine the underlying antecedents of knowledge sharing, if we really want to add value to the practitioners of knowledge sharing. To date, little empirical research exists on what environments and mechanisms are conducive to knowledge sharing. Even much less empirical research exists on the deeper individual issues that shape individuals beliefs, attitudes and intentions, and behaviors in knowledge sharing (Andrews & Delahaye 2000; Hinds & Pfeffer 2003).

University is an educational institution on a mission to educate and develop the virtuous life of the nation, a center of science, technology, arts, social sciences, and humanities. Unlike the business organization, an institution made up of many human resources. Since the number of human resources held in the educational institutions, an increase in the quality and competence of individuals is a major requirement of a university's success in managing its resources. One way to improve the quality and competence is to cultivate a knowledge sharing (knowledge sharing) among the teachers and knowledge workers (knowledge workers) in a university.

With culture of sharing knowledge, both knowledge sharing among students, among faculty, between students and faculty, and between faculty, students with university administrators, it is expected to increase the quality of the learning process and increase the knowledge component can be created a *akademikicivitas*, which in turn can encourage greater innovation university.

Citing the growing significance of knowledge sharing to the success of knowledge management and to organizational survival, several researchers have called for further investigation of the factors that shape knowledge sharing behaviors in the organizational context. The objective of this research is to examine the factors that influence knowledge sharing intention of knowledge workers. As knowledge sharing intention does not happen in vacuum, but is influenced by psychological, organizational and technological factors, the study will examine the effects of the same on knowledge sharing intention

## ***Hipotesis Development***

### **1. Antecedents of Knowledge Sharing Attitude**

Although knowledge sharing attitude is represented as having direct influence on the knowledge sharing intention in the research model, attitude indeed is formed from a collection of behavioral beliefs. Self-determination theory identifies the motivational influences of these beliefs to be both autonomous and controlled. Autonomy means approving one's actions with highest reflexivity. Behavior is autonomous to the extent an individual experiences choice and acts with a sense of true volition because of the personal significance of the behavior. An example of autonomous motivation is intrinsic motivation. When knowledge workers engage in knowledge sharing voluntarily because they find it interesting, they are sharing the knowledge wholly volitionally. In contrast, behaviors are controlled to the extent individuals perceive a sense of pressure to perform them. An example of controlled motivation is extrinsic motivation. When individuals engage in knowledge sharing either because of the perceived pressure from the management or with the expectation of some incentives in return, their behavior is externally regulated and controlled.

Prior research in knowledge sharing has identified extrinsic motivators to be organizational rewards, expectations of reciprocity, reputation and loss of knowledge power (Gomez- Mejia and Balkin, 1990; Malhotra and Galletta, 1999; Bock et al, 2005; Deluga, 1998; Major et al., 1995; Parkhe, 1993; Sparrowe and Linden, 1997; Wasko and Faraj, 2000; Yamagishi and Cook, 1993 ; Davenport and Prusak, 1998; Kankanhalli, 2005, Gray, 2001; Thibaut and Kelley, 1986; Orlikowski, 1993; Constant et al 1996; Kollock, 1999) and intrinsic motivators to be pro-social behavior, altruism, enjoyment in helping others and community advancement (Wasko and Faraj 2000; Brockner, 1988; Gardner and Pierce, 1998; Gecas, 1989; Stajkovic and Luthans, 1998).

#### **1.1 Perceived Enjoyment in Helping Others**

This construct is based on the concept of altruism. Altruism exists when people perform a behavior intending to benefit others with out expecting any thing in return. People help others because they draw intrinsic enjoyment from helping others (Davenport and Prusak, 1998; Krebs 1975; Smith 1981; Kankanhalli et al., 2005). Individuals share knowledge because they believe helping others with challenging problems is interesting and because helping others make them feel good (Kollock, 1999).

Wasko and Faraj (2000) observe that individuals in electronic networks are intrinsically motivated to share knowledge with others because they derive enjoyment in helping others. Participants are motivated to share knowledge with others because they consider helping others and sharing knowledge "is the right thing to do". People feel that they are morally obligated to share knowledge in order to contribute positively to the community advancement. By fulfilling their own altruistic and pro-social motives, people derive intrinsic enjoyment. Similar findings were also observed in studies by (Lakhani & von Hippel, 2000; Lerner & Triole, 2000; Ba et al, 2001; Constant et al. 1994; Constant et al. 1996). Therefore, the tenth hypothesis predicts the following:

H1: Perceived enjoyment in helping others has a positive effect on the knowledge worker's attitude towards knowledge sharing

#### **1.2 Perceived Reciprocal Benefits**

Perceived Reciprocal Benefits as an antecedent to Attitude towards Knowledge Sharing. Social exchange theory (Blau, 1964) describes human behavior in terms of social exchanges.

Social exchanges differ from economic exchanges in that the value in the exchange behavior is not clearly defined. Some researchers contend that the value of social exchange lies in the maintenance of reputation, power and long-term relationships for future reciprocal benefits. Reciprocity acts as a benefit because it results in feelings of personal obligation, gratitude and trust. Prior research suggests that individuals engage in knowledge sharing with the expectation that their future knowledge requests will be met by others (Connolly and Thom, 1990; Wasko & Faraj, 2000; Kankanhalli, Tan and Wei, 2005; Bock, Zmud, Kim and Lee, 2005).

Connolly and Thom (1990) highlighted reciprocity to be significant motivator for contributing to the discretionary databases. Wasko and Faraj (2000) found that individuals engaging in knowledge sharing in electronic communities of practice believe in reciprocity. Bock & Kim (2002) have also noted the importance of reciprocity in the context of knowledge sharing. Similarly, Kankanhalli, Tan and Wei (2005)'s study indicates reciprocity to be a salient motivator for individual's knowledge contribution to electronic knowledge repositories, under conditions of weak pro-sharing norms. Bock, Zmud, Kim and Lee (2005) also found that anticipated reciprocal relationships influence individuals' attitudes toward knowledge sharing. Thus it is theorized that knowledge worker's belief that his/her future knowledge needs will be met by others in return for sharing knowledge is likely to have positive effect on attitudes towards knowledge sharing. This leads to the seventh hypothesis.

H2: Perceived Reciprocal benefits have a positive effect on the knowledge worker's attitude towards knowledge sharing.

### **1.3 Perceived Reputation Enhancement**

Social exchange theory posits that social exchange engenders social rewards such as feelings of approval, status and respect. In today's knowledge economy, expertise is highly valued. By showing their expertise to others, employees earn recognition and respect resulting in improved self-concept (Constant et al., 1994; Constant et al., 1996; Hall, 2001; Kankanhalli et al., 2005). O'Dell and Grayson (1998) suggest that employees share their best practices because of their desire to be recognized by experts and peers. Kollock (1999) found that employees with high technical knowledge have better status in the work place. Thus it is theorized that employee's belief that sharing knowledge will enhance his/her reputation and status in the profession is likely to be an important motivator for offering valuable advice to others.

H3: Perceived reputation enhancement has a positive effect on the knowledge worker's attitude towards knowledge sharing.

### **1.4 Channel Richness**

Knowledge sharing is conducted via some channels that act as connections between the partners of sharing and facilitate the transfer of knowledge from source to target. Therefore, the availability and the richness of such channels may impact the success of knowledge sharing to some extent. Generally speaking, the channel does not only mean some physical settings, for instance, telephone, discussion rooms or computer network, but also means various virtual connections between employees and even a knowledge sharing friendly culture in organization. Holtham and Courtney (Holtham, and Courtney, 1998) summarized four kinds of transmission channels which are informal or formal, personal or impersonal. Informal channels could be unscheduled meetings, informal seminars, or coffee break conversations. These mechanisms are effective to promote socialization, particularly, in small organizations (Fahey and Prusak, 1998). Formal mechanisms may include training sessions or plant tours, which are believed to ensure greater distribution of knowledge. Personal channels, such as apprenticeship or personnel transfers, may be more effective in sharing highly context specific knowledge. Impersonal channels, in contrast, are more effective for sharing knowledge that can be readily generalized to other contexts.

However, a process of knowledge sharing does not require the existence of all of the above channels. Successful knowledge sharing could be conducted in primitive ways such as daily dialog. In other words, the extent of channel richness could vary substantially in different conditions of knowledge sharing. We assume that once one more channel that could be possibly used to share knowledge with each other is established, it is more likely that people will share knowledge. The availability of rich channels can help people expand their network with more extended connections with others, thus facilitating contact between people who are seeking knowledge and those who have access to the knowledge (Robertson et al., 1996). Moreover, it enables people to conduct knowledge sharing conveniently and flexibly in terms of time and place. They do not have to be hindered by issues of working hour and office location.

Studies that examined the effect channel richness to one's wishes carried out by the sharing of knowledge and Muray and Peyrefitte (2007) and Kwok and Gao (2006). Research conducted by Muray and Peyrefitte (2007) examined channel richness in communicating, holding meetings, and training in order to motivate employees to share knowledge on research in the hospital setting. The sample came from 213 nurses, 29 administrative people, and 33 head nurses. Research results show that there is a positive relationship between the channel richness with employee attitude towards knowledge sharing behavior. Other studies that examined channel richness desire to share knowledge by Kwok and Gao (2006). Sample of this study using 91 college students. His study concluded that there is a positive relationship between the channel richness on attitude towards knowledge sharing behavior. Based on the results of research carried out previously, the hypotheses can be formulated as follows:

H4: Channel richness to share their knowledge in a positive effect on the knowledge worker's attitude towards knowledge sharing.

## 2. Perceived Organizational Climate

Perceived Organizational Climate as an antecedent to Subjective Norm Organizational climate is the shared values, norms, meanings, beliefs, myths and underlying assumptions within an organization. Organizational climate guides the employees behavior by conveying to them what behavior is appropriate and desirable. Subjective norms are formed when employees internalize and evaluate organizational values and norms. The effects of organizational climate on knowledge sharing has been widely studied (Constant et al. 1996; Huber 2001; Orlikowski 1993; Buckman, 1998; McDermott & O'Dell, 2001; Bock et al., 2005; Connelly and Kelloway, 2003). The general consensus among these researchers is that organizational climate is a critical driver of knowledge sharing and that some climates are more conducive to knowledge sharing than others. Some of the salient aspects of climates that are conducive to knowledge sharing were identified as embracement of pro-social norms, focus on learning, tolerance for mistakes, high trustworthiness, identification with the interests of the organization and so forth (Hinds and Pfeffer 2003; Dixon 2000; Jarvenpaa and Staples 2000; Leonard and Sensiper 1998; Constant et al. 1994, 1996; Wasko and Faraj 2000). Based on previous research leads to hypothesis.

H5: Perceived organizational climate has a positive effect on subjective norm

H6: Perceived organizational climate has a positive effect on knowledge intention

## 3. Theory of Reasoned Action

This study uses the framework of reasoned action theory/ Theory Of Reasoned Action (TRA) to test a person's attitude to the behavior of knowledge sharing that will ultimately affect a person's intention to share knowledge. The theory of reasoned action / Theory Of Reasoned Action explains how a person's behavior is influenced by one's intention to do something (Ajzen and Fishbein, 1980). This theory explains that the intention is determined by attitude toward behavior and subjective norm. Within the framework of sharing knowledge, intention to share knowledge of a person behaves is determined by one's attitude towards knowledge sharing behavior and subjective norms for knowledge sharing (Warshaw, 1980; Jogiyanto, 2007). According to the Theory of Reasoned Action (Fishbein and Ajzen, 1975; Korzaan, 2003), an individual's intention to perform a behavior and their actual behavior can be determined by their attitude toward this behavior. Individuals may behave differently when their attitude toward a certain type of behavior is changed. Specifically, individuals are usually more likely to perform a behavior if they possess positive attitude toward this behavior and vice versa. Based on this theory, in the context of knowledge sharing, it is expected that individuals with respect knowledge may demonstrate more knowledge sharing behavior if they hold positive attitude toward knowledge sharing. Therefore, it is meaningful to identify the factors that are influential to individuals' attitude toward knowledge sharing behaviors.

### 3.1 Attitude towards Knowledge Sharing intention

Attitude towards knowledge sharing is formed from behavioral beliefs and refers to the degree of positive/negative feelings an individual has towards the intention to share knowledge with other members of the organization. Higher attitudinal disposition towards knowledge sharing should increase knowledge sharing intention. Thus it is theorized that

H7: Attitude toward knowledge sharing has a positive effect on intention to share knowledge.

### **3.2 Subjective Norm towards Knowledge Sharing intention**

According to TRA, subjective norm is formed from normative beliefs and refers to the individual's belief that important relevant others expect him/her to engage in behavior of interest. In the organizational context, these relevant others include executive board, senior management, supervisor and the peer group. Industry surveys suggest that senior management drive knowledge management efforts. Management has control over employee compensation policies, performance appraisal and career advancement. As such, it is only natural that employees would want to comply with the management expectations of engaging in knowledge sharing behavior. Similarly, peer group acceptance also has an important effect on one's professional experience. Previously published research has shown subjective norm to be an important antecedent to behavioral intention (Brock, Zmud, Kim and Lee, 2005; Mathieson 1991; Taylor and Todd 1995; Thompson et al. 1991).

Lee (1990) argues that individuals are more motivated to conform to group norms, the more their attitudes tend to be groupdetermined than individual-determined. Thus, it seems reasonable to posit that subjective norms regarding knowledge sharing will influence organizational members' attitudes toward knowledge sharing. Thus, it is proposed that employee's normative beliefs about the management and peer group expectations have a positive effect on his/her attitude and intention to share knowledge.

H8: Subjective norm has a positive effect on the knowledge worker's attitude towards knowledge sharing.

H9: Subjective norm has a positive effect towards Knowledge Sharing intention

### **Research Method**

To test the proposed research model, we adopted the survey method for data collection, and examined our hypotheses by applying the partial least squares (PLS). Unit of analysis was the individual. We used lecturer as sample of this research. Research conducted on two university (Public and Private) at Purwokerto city and two university (Public and Private) at Yogyakarta city. Convenience sampling technique is used to collect respondent. We developed the items in the questionnaire either by adapting measures that had been validated by other researchers or by converting the definitions of constructs into a questionnaire format.

Specifically, the items for the three antecedent beliefs—Perceived enjoyment in helping others, Channel Richness, Perceived Reputation Enhancement, Chanel Perceived Reciprocal Benefits, Perceived organizational climate were developed based on relevant theories and prior studies. The items measuring attitude and subjective norm were adapted from Fishbein and Ajzen's (1975) research, and the items for measuring organizational climate were adapted from previous organizational climate studies, with the items altered to fit the knowledge-sharing context. The three organizational climate dimensions were then used as indicators (Chin and Gopal 1995) to create the super ordinate organizational climate construct. To eliminate any possible scaling issues, the subjective norm scores were normalized according to the procedure of Bailey and Pearson (1983). Finally, the items for the dependent variable— intention to share knowledge were also adapted from Fish be in and Ajzen's (1975) research. We created one construct for intention to share knowledge by forming a second-order construct from a scale measuring intention to share explicit knowledge and a scale measuring intention to share implicit knowledge

Questionare were sent to each of respondent, with 264 responses returned (83,5 percent response rate). Out of the 264 responses, 22 responses with incomplete data were eliminated from further analysis. Table 1 (a) and (b) shows profil of respondents.

### **Result**

PLS (Chin 1998) was used as it allows latent constructs to be modeled either as formative or reflective indicators as was the case with our data, and it makes minimal demands in terms of sample size to validate a model compared to alternative structural equation modeling techniques. We used SmartPLS Version 2.0 in our analysis. Based on PLS analysis we analyze based on measurement model and structural model.

#### **1. Measurement Model**

Following recommended two-stage analytical procedures (Anderson and Gerbing 1988; Hair et al. 1998), confirmatory factor analysis was first conducted to assess the measurement model; then, the structural relationships were examined.

Since the model contains two second-order variables (organizational climate and knowledge sharing intention), we created superordinate second-order constructs using factor scores for the first-order constructs (Chin et al. 2003; Wold 1989). According to causal priority (Diamantopoulos and Winklhofer 2001) and the direction of change of one item compared with the rest (Chin 1998), we treated the indicators of organizational climate as formative and those of intention as reflective.

To validate our measurement model, two types of validity were assessed: convergent validity and discriminant validity. We assessed convergent validity by examining composite reliability and average variance extracted from the measures (Hair et al. 1998). Although many studies employing PLS have used 0.5 as the threshold reliability of the measures, 0.7 is a recommended value for a reliable construct (Chin, 1998). As shown in Table 2, our composite reliability values range from 0.823 to 0.930. For the average variance extracted by a measure, a score of 0.5 indicates acceptability (Fornell and Larcker 1981). Table 2 shows that the average variances extracted by our Measures range from 0.609 to 0.866, which are above the acceptability value.

The result in Table 3 confirms the discriminant validity: the square root of the average variance extracted for each construct is greater than the levels of correlations involving the construct. The results of the inter-construct correlations also show that each construct shares larger variance with its own measures than with other measures.

## 2. Structural Model

With an adequate measurement model and an acceptable level of multicollinearity, the proposed hypotheses were tested with PLS. The results of the analysis are summarized in Table 4. Based on table 4, We discuss the results in the following sequence: standard TRA constructs (Hypotheses 7, 8, and 9), psychological antecedents to these TRA constructs (Hypotheses 1, 2, 3), Channel richness (Hypotheses 4) and organizational climate (Hypotheses 5 and 6). Hypotheses 1, 2 are supported but on Hypothesis 3 not supported. Hypothesis 4, supported. Hypothesis 8 and 9 is also supported, adding credence to the argument that subjective norms can influence intentions both directly and indirectly (through attitudes), especially within cultural contexts characterized by strong group orientation, such as is the case higher education context. Finally, effect attitude toward knowledge sharing on knowledge sharing intention, supported. Regarding organizational climate, the results show, as posited, that organizational climate influences both subjective norms (H5) and intention to share knowledge (H6) are supported.

## 3. Discussion

Perceived enjoyment in helping others had a significant positive effect on knowledge workers attitude towards knowledge sharing at 0,013. One possible explanation for the high contribution of enjoyment in helping others is that knowledge sharing behavior relate to organizational citizenship behavior or prosocial behavior (Connelly and Kelloway, 2003). Prosocial organizational behaviors are actions that are performed with the intent to promote welfare of others (Brief and Motowidlo, 1986). Prosocial behaviors include positive social acts such as assisting, helping, sharing, donating, cooperating, and volunteering. Wasko and Faraj (2000) observe that participants in electronic networks help others primarily out of community interest, norms of generalized reciprocity and prosocial behavior. Participants are motivated to share knowledge with others because they consider helping others and sharing knowledge “is the right thing to do”. People feel that they are morally obligated to share knowledge in order to contribute positively to the community advancement. By fulfilling their own altruistic and pro-social motives, people derive intrinsic enjoyment.

Perceived reciprocal Benefit had a significant positive effect on attitude towards knowledge sharing at 0,042. The significance of perceived reciprocal benefits provides some indication that knowledge workers are likely to engage in knowledge sharing with the expectation of receiving future help from others in return for sharing knowledge. This finding indicate that by sharing knowledge, individuals derive significant personal benefits such as heightened self-esteem and pride, increased competence, increased social affiliation, enhanced reputation and stronger feelings of organizational commitment.

Individuals are willing to share expertise more readily, because sharing what they possess reflects their personal identity and self-worth. It allows them to satisfy their own self-expressive needs as well as organizational citizenship behavior.

This finding accords with the findings of prior research on discretionary databases, information exchange, communities of practice and open source programming communities where generalized reciprocity was consistently found to be an important predictor for knowledge contribution (Connolly and Thom, 1990; Constant et al., 1994; Wasko & Faraj, 2000; Lakhani & von Hippel, 2000; Lerner & Triole, 2000).

Similar sentiments are also echoed by other researchers (Constant et al., 1994; Constant et al. 1996; Kollock, 1999; Kankanhalli et al., 2005; Lakhani & von Hippel, 2000; Lerner & Triole, 2000). Constant et al., (1994) contend that information as expertise is more of a personal possession and less of an organizational possession. Constant et al.,(1996) also contend that individuals engage in information sharing to increase their self esteem and personal identity. Kankanhalli et al., (2005) in their study on electronic knowledge repository (EKR) usage found that individuals contribute to EKR because they feel good about helping others.

Perceived reputation enhancement do not effect on the knowledge workers attitude towards knowledge sharing. This finding indicates that Perceived reputation enhancement is not a driving factor that can influence individual attitudes on knowledge sharing behaviors. In the context of higher education knowledge sharing activities are routine activities that have the responsibility of members of the organization. They assume that knowledge sharing activities is part of the obligations. This result not consistent with social exchange theory. This finding different from prior research conducted by Wasko & Faraj, 2000; Kankanhalli, 2005; Hall 2001; Kollock 1999 that findas perceived reputation enhancement be an important motivator for participating in knowledge sharing (Wasko & Faraj, 2000; Kankanhalli, 2005; Hall 2001; Kollock 1999).

It is not surprising that hypothesis 3 is supported by the analysis because people would hold favorable attitude toward knowledge sharing behaviors if they feel convenient and flexible in time and place to engage in such activities. Their beliefs, valuing efficiency and trouble saving, may take the role to influence an individual's attitude at this stage. Holtham and Courtney (Holtham, and Courtney, 1998) summarized four kinds of transmission channels which are informal or formal, personal or impersonal. Informal channels could be unscheduled meetings, informal seminars, or coffee break conversations. These mechanisms are effective to promote socialization, particularly, in small organizations (Fahey and Prusak, 1998). Formal mechanisms may include training sessions or plant tours, which are believed to ensure greater distribution of knowledge. Personal channels, such as apprenticeship or personnel transfers, may be more effective in sharing highly context specific knowledge. Impersonal channels, in contrast, are more effective for sharing knowledge that can be readily generalized to other contexts.

Similar to Bock et al.,(2005) study, organizational climate was found to have substantial impact on subjective norm with a path coefficient of 0,005. The higher the perceptions of organizational climate to be conducive of knowledge sharing, the higher was the formation of subjective norm towards knowledge sharing. Organizational climate explained about percent of variance in subjective norm towards knowledge sharing. organizational climate also significant effect directly on knowledge sharing intention. This result suggest that organizational climate will motivate knowledge worker to share their knowledge to others. Consistent with Jarvenpaa & Staples findings (2001) that identified the formal cultural dimensions that are supportive of knowledge sharing as solidarity, sociability, employee-oriented, need for achievement and collectivism. Bock, Zmud, Kim and Lee (2005) categorized cultural dimensions to be fairness, innovativeness, and affiliation. This finding also confirm Ajzen and Fishbein (1980) findings that external factors such as organizational climate can influence the subjective norm of individuals by cueing to them the desirable behavior that is expected of them.

Consistent with the theory of reasoned action (TRA), the study hypothesized the predictors of knowledge sharing intention to be attitude towards knowledge sharing, subjective norm and perceived behavioral control. As hypothesized, attitude, subjective norm and perceived behavioral control emerged as significant predictors of intention towards knowledge sharing. These findings are consistent with the findings of prior TPB related research (Taylor and Todd, 1995; Mathieson, 1991; Bock and Kim, 2002, Bock et al., 2005; Ryu et al., 2003; Lin et al., 2004).

Attitude towards knowledge sharing had a strong effect on the behavioral intention to share knowledge. The high contribution of attitude towards knowledge sharing suggests that knowledge workers with favorable attitudinal disposition are more likely to engage in knowledge sharing. Subjective norm was found to have significant effect on behavioral intention.

The significance of subjective norm implies that knowledge workers consider management and peer group expectations of knowledge sharing to be important. Knowledge workers are likely to engage in knowledge sharing when they perceive that their management and peer group value knowledge sharing and are likely to applaud the behavior. This finding highlights the importance of the social influence of top management and peer group in knowledge sharing.

### ***Conclusion***

Motivational drivers both extrinsic and intrinsic as potential predictor of knowledge sharing intention. Integrating theory of reasoned action (TRA), social exchange theory and altruism as theoretical foundation for predicting knowledge sharing behavior. Formal and informal networks facilitate knowledge exchanges among knowledge workers. Attitude towards knowledge sharing behavior affects intention. Knowledge workers with pro-social or altruistic motives are likely to engage in knowledge sharing. Knowledge workers' perception of channel richness is an important factor to support knowledge sharing intention.

### ***Implication***

Study has many implications for organizations initiating or striving to promote knowledge sharing behaviors of their knowledge workers. First, prior to introducing knowledge sharing initiatives, higher education institutions should create an environment that is conducive to knowledge sharing. Second, management should demonstrate its support for knowledge sharing. Supportive organizational climate and intensified management commitment towards knowledge sharing promotes knowledge sharing behaviors. Third, higher education institutions should promote knowledge sharing behaviors by managing factors that influence knowledge workers' attitude towards knowledge sharing. Higher education institutions should structure the knowledge sharing initiatives in such a way that they support the social concerns knowledge workers have for such things as realizing reciprocal benefits, enjoyment in helping others, balance of power and so forth. Fourth, higher education institutions should encourage knowledge sharing behaviors by promoting pro-social and organizational citizenship behavior. Higher education institutions should acknowledge that some knowledge workers engage in knowledge sharing purely from altruistic or pro-social motives. With this in mind, knowledge sharing initiatives should be structured in such a way that they contribute to knowledge workers' satisfaction. Higher education institutions should raise the level of the knowledge workers' perceptions of the enjoyment in helping others by publicizing the positive outcomes of the knowledge sharing. Knowledge workers with pro-social or altruistic motives are likely to engage in knowledge sharing more often, when they realize the benefits the organization or coworkers have accrued as a result of knowledge sharing. Fifth, higher education institutions should promote some channels to facilitate collaborative work and support knowledge sharing.

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Appendix

Table 1. Profil of Respondent  
(a) Area and University

Region	Response	Percent	University	Response	Percent
Purwokerto	118	49%	Public	127	52%
Yogyakarta	124	51%	Private	115	48%
<b>Total</b>	<b>242</b>	<b>100%</b>		<b>242</b>	<b>100%</b>

(b) Demographic Information of Respondents

Occupation	Response	Percent	Gender	Response	Percent
Assistant	45	19%	Men	145	60%
Assistant professor	104	43%	Women	97	40%
Associate professor	51	21%			
Profesor	42	17%			
<b>Total</b>	<b>242</b>	<b>100%</b>		<b>242</b>	<b>100%</b>

Table 2. Summary of AVE, Root of AVE and composite reliability

	AVE	Root of AVE	Composite Reliability
IO	0,680983	0,595938	0,864744
KM	0,521515	0,722159	0,844555
MTB	0,617208	0,785625	0,750275
N	0,5757	0,788748	0,870887
NS	0,597285	0,772842	0,81205
RD	1	1	1
S	0,544721	0,738052	0,854844

Table 3. Root of AVE dan Correlation between construct

	IO	KM	MTB	N	NS	RD	S
<b>IO</b>	<b>0,595938</b>						
<b>KM</b>	0,395	<b>0,722159</b>					
<b>MTB</b>	0,453	0,635	<b>0,785625</b>				
<b>N</b>	0,36	0,688	0,504	<b>0,788748</b>			
<b>NS</b>	0,674	0,348	0,392	0,32	<b>0,772842</b>		
<b>RD</b>	0,418	0,412	0,467	0,316	0,428	1	
<b>S</b>	0,371	0,69	0,596	0,726	0,288	0,271	<b>0,738052</b>

Table 4. Tests of Hypothesis

	Hypothesis	T Statistics	p-Value	Result
H1	Perceived Enjoyment in Helping Others → attitude towards knowledge sharing	2,232504	0,013	Supported
H2	Perceived Reciprocal Benefits → attitude towards knowledge sharing	1,724	** 0,04266	Supported
H3	Perceived reputation enhancement → attitude towards knowledge sharing.	1,510	* 0,06584	Supported (Marginal)
H4	Channel richness → attitude towards knowledge sharing.	4,078	*** 0,00003	Supported
H5	Perceived organizational climate → Subjective Norm	4,434	*** 0,00518	Supported
H6	Perceived organizational climate → Knowledge sharing intention	2,573	** 0,01977	Supported
H7	Subjective Norm → attitude towards knowledge sharing.	3,789	*** 0,00008	Supported
H8	Attitude towards knowledge sharing → Knowledge sharing intention	2,137	** 0,01654	Supported
H9	Subjective Norm → Knowledge sharing intention	5,667	*** 0,00000001	Supported

\*  $p \leq 0,1$  \*\*  $p \leq 0,05$  \*\*\*  $p \leq 0,01$