

**IEBMC 2017**  
**8<sup>th</sup> International Economics and Business Management**  
**Conference**

**ISLAMIC WORK ETHICS AND TACIT KNOWLEDGE SHARING:  
AUTONOMOUS MOTIVATION AS MEDIATOR**

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*Abstract*

Tacit knowledge is a strategic resource that can unlock human potential to the fullest and enable the creation of new knowledge if employees share their knowledge among themselves. It is believed to be significant for the performance of the academics whose job nowadays goes beyond teaching and research to administration, consultation, and commercialisation. By taking an individual and ethical perspectives, our study emphasised on Islamic work ethics and autonomous motivation as critical human elements to improve and promote tacit knowledge sharing (TKS) among the academics. Underpinned by Self-Determination Theory (SDT) of motivation and Islamic code of conducts, this study hypothesized a positive relationship between Islamic Work Ethics and TKS, and a mediation effect of autonomous motivation in the relationship between Islamic Work Ethics and TKS. Questionnaire surveys were distributed to the full-time Muslim academics working in five research-based universities in Malaysia. PLS statistical techniques was utilised in analysing the questionnaire collected from 315 academics. The results of this study substantiate the positive link between Islamic Work Ethics and TKS, and reveal that autonomous motivation partially mediates this relationship. Theoretically, the present study contributes to knowledge by providing support for the importance of SDT of motivation as a mechanism in explaining the relationship between Islamic Work Ethics and TKS. Practically, this study suggests to the management of university and practitioners that maximum benefits from tacit knowledge sharing can be realised by fostering Islamic-based ethical values, and giving autonomy to the academics to increase work motivation.

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**Keywords:** Islamic work ethics, autonomous motivation, tacit knowledge sharing (tk), self-determination theory (sdt), knowledge management, research university.



## 1. Introduction

Knowledge has been recognised as a valuable intangible resource that can enhance organisational performance, and it is the key to gain competitive advantage for any organisation (Grant, 1996). It has been argued that knowledge, especially tacit knowledge which is defined in the present study as a sharing of ideas, expertise, experiences, and tips among employees within an organization (Lin, 2007), can unlock human potential to the fullest if employees share their knowledge among themselves (Dyer & Nobeoka, 2002). More importantly, tacit knowledge is a strategic resource that allows employees to create new knowledge (Quinn, 1992) and to improve their performance (Dyer & Nobeoka, 2002). Therefore, employees are obliged to share their tacit knowledge in order to create new knowledge for the benefit of others (Vick et al., 2015).

Recently, knowledge has taken a strong position in the public sector, particularly in the academic world (Fullwood et al., 2013; Smith, 2014). Universities are the platform of knowledge creation (Vick et al., 2015), they constitute a true and unique example of knowledge sharing because their main mission is to disseminate and share knowledge (Fullwood et al., 2013). In research universities for instance, academics do not only do the routine job of teaching and research, but they have moved towards consultation and commercialisation with industry. Their work is more challenging and requires them to compete with one another in producing good quality research, getting consultations, and having the products and research commercialised (Altbach, 2007). Hence, they are as important as business organisations (Smith, 2014).

Previous researchers have emphasised the initiatives of management to manage knowledge (Davenport et al., 1998; Grant, 1996) such as using a resource-based view to manage knowledge, utilised integrated technologies to connect the units or departments to share knowledge, and enhancing inter-firm competition in order to acquire new knowledge (Smith, 2014). Despite these initiatives by scholars and by organisations to invest their time and financial resources in building and improving knowledge management systems, the initiatives are still not sufficient to solve knowledge sharing problems instead they cause heavy financial losses (Babcock, 2004). One of the important reasons for failure is highlighted by Massingham (2014), who pointed out that managing knowledge not only requires management, but it depends on individuals because it is human-based. In support of this argument, Ryan and O'Connor (2013) suggest that human factors should be further researched in understanding tacit knowledge sharing.

## 2. Problem Statement

Tacit knowledge is a critical resource in the knowledge management literature (Augier et al., 2001), and is gaining interest among researchers. However, managing tacit knowledge is not an easy task and many initiatives fail because they neglect human factors such as ethical (Lee, 2011; Lin, 2007) and individual factors in understanding tacit knowledge sharing (TKS) (Ryan & O'Connor, 2013). However, Bock and Kim (2001:1043) argue that employee's sharing behaviour is 'not natural', hence it needs to be motivated (Hislop, 2003). Motivation is considered as the central and primary driver in the knowledge sharing process, and the lack of motivation may hamper this process (Wang & Hou, 2015). Recently, researchers (e.g., Grant et al., 2011; Wang & Hou, 2015) have emphasised on autonomous motivation, because this type of motivation enables someone to assess individuals based on their experience of a true sense of choice, independence, interest, and personal importance for a specific behaviour. The initiatives

of management to influence individuals' behaviour should also consider what motivates them to share their knowledge, and it has become the main concern for knowledge management within organisations (Hau et al., 2013; Yeon et al., 2015). One of the reasons for considering motivation in the knowledge sharing literature is that motivation is considered one of the critical factors in knowledge sharing behaviour, and knowledge sharing rarely happens without individual motivation (Hau et al., 2013; Yeon et al., 2015).

In addition, motivation drives, energises, and directs individuals' behaviour (Taghipour & Dejbani, 2013). It is evident from previous studies that there is a positive relationship between an individual's motivations and knowledge sharing (e.g., Hau & Kim, 2011; Lin & Huang, 2013). However, those studies concentrate either on intrinsic or extrinsic motivations alone. It should be noted that those studies have found a positive relationship between both intrinsic motivation (e.g., Chou et al., 2014; Hau et al., 2013) and extrinsic motivation (e.g., Al-Alawi et al., 2007; Bock et al., 2005), and knowledge sharing. Thus, it is difficult to determine which type of individuals' motivation is actually playing a role in promoting tacit knowledge sharing. Moreover, Self-Determination Theory (SDT) argues that individuals may be autonomously motivated to engage in behaviours rather than being either intrinsically or extrinsically motivated (Roth et al., 2007). Hence, to fill this gap, the study proposed autonomous motivation as it is able to measure an individual's motivation on its different quality levels (Wang & Hou, 2015) based on their Relative Degree of Autonomy (RAI) on the continuum of motivation (Ryan & Connell, 1989) which includes intrinsic motivation, identified regulation, integrated regulation, and extrinsic motivation.

Another important recent antecedent investigated in TKS literature is work ethics (Akhavan et al., 2014; Lin & Joe, 2012). Work ethics is an important mechanism for TKS and is considered the key input for knowledge sharing behaviour (Kumar & Rose, 2012) by building and sustaining motivated employees (Meriac et al., 2009). As knowledge sharing cannot be forced, it requires an individual's understanding, beliefs, and awareness. Moreover, Chih-Chien (2004) claims that willingness to share tacit knowledge is based on the belief that it is an ethical obligation or requirement. However, the studies of religion-based work ethics overemphasise the concept of Protestant Work Ethics that pertains to European society (e.g., Maria, Juan & Javier, 2014; Neubert & Halbesleben, 2014), and Confucius (e.g., Kang et al., 2015; Wang & Li, 2014). These studies overlook the importance of other religious beliefs, particularly Islamic Work Ethics (Abbasi, 2008; Ali, 2009; Imam et al., 2015).

The reason for emphasising Islamic Work Ethics is that it is argued to be different from other religious based ethics. Islamic Work Ethics has its own perspective regarding work-related behaviour as the concept itself is origin in the Quran and the teaching of the Prophet SAW (Saeed Hameed Aldulaimi, 2016). It is argued to be different from Protestant Work Ethics (Ali & Al-Owaihian 2008; Rice 1999) because it emphasises a balanced life (Abu-Tapanjeh 2009), the benefits of mankind (Ali 1988), and anticipating work as an *ibadah* (Muhammad et al., 2008) or obligation to God (Tayeb 1997). For example, Islam emphasises knowledge sharing behaviour and dislikes those who do not share their knowledge. As Prophet Muhammad (peace be upon him) said "He who is asked something he knows and conceals it will have a bridle of fire put on him on the Day of Resurrection (Hadith narrated by Abu Hurairah, No 3650). Hence, individuals' participation and involvement in knowledge sharing is not a choice, but rather is an obligation (Ali & Al-Owaihian 2008), and hoarding of resources such as knowledge is prohibited (Rice 1999). Based on the different grounds of religion-based ethics that Islamic Work Ethics embraces, and the

lack of studies considering the concept of ethics in understanding the antecedents of knowledge sharing (e.g., Kumar & Rose, 2012; Ghulam et al., 2014; Mursleen et al., 2015), this study will fill the gap by examining the relationship between Islamic Work Ethics and TKS.

In addition, the extant literature proposes the mediation effect of autonomous motivation between psychological needs including spiritual and behavioural outcomes (Wang & Noe, 2010). Religious teachings and principles are used to motivate the believers in order to mobilise their behaviours (Oviedo, 2015). According to Ather et al. (2011), Islamic religious beliefs provide promising avenues for understanding human motivation. In Islam, the motivations for engaging in behaviour or activities are similar to the terms intrinsic and extrinsic religious motivations in the extant literature (Alserhan, 2010). In intrinsic religious motivation, individuals consider their religious beliefs as an end in itself, while in extrinsically religious motivation; individuals consider their religious belief based on its usefulness (Weaver & Agle 2002). In line with this argument, Muslims will feel intrinsically motivated if they can perform their duty to God and serve others (Arthur et al., 2005). For instance, knowledge sharing is considered as performing a duty to God, known as *ibadah* (Tuitoek, 2012). On the other hand, Muslims are extrinsically motivated if they perform an activity in this world to fulfill their family and other responsibilities (Ather et al., 2011). Nevertheless, Islam emphasises a balance between this life and the hereafter as stated in the Holy Qurān, “Seek the gains of the life to come through your wealth without ignoring your share of this life” (28:77). Hence, the Islamic beliefs and codes of conduct are much closer to autonomous motivation (Hayati & Caniogo, 2012; Zaman et al., 2013). In addition, the robustness in the autonomous motivation construct developed by Ryan and Connell (1989) provides a credible approach in studying believers’ motivation for a specific behaviour (Sandikci & Rice, 2011).

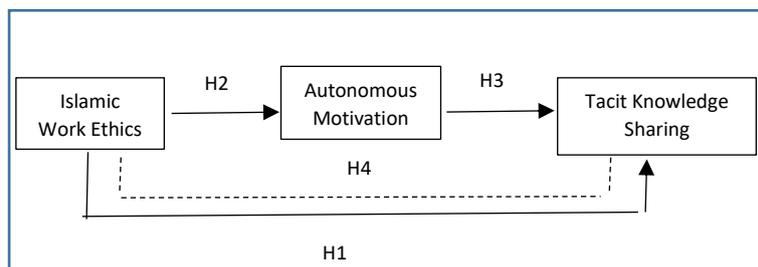
### **3. Research Questions**

Based on the above problem statement, there is a need to advance research on human factors in understanding the TKS process. Two human factors being highlighted are ethical and individual factors. Firstly, the role of individual factors such as individuals’ motivation needs further attention. The knowledge sharing literature has confirmed the importance of motivation in knowledge sharing and emphasised on the degree or quality of motivation a person possess. Secondly, work ethics, which has been a new addition to the knowledge sharing literature, suggest the role of religious work ethics in influencing TKS. Past studies have concentrated on the Protestant Work Ethics and only a few studies were conducted on the Islamic Work Ethics. Islamic Work Ethics is argued to be different from Protestant Work Ethics as it emphasises on balanced life that benefits the mankind and anticipating work as an obligation to God. In addition, the extant literature proposes the mediation effect of autonomous motivation between psychological needs including spiritual and behavioural outcomes (McDonough & Crocker 2007; Wang & Noe 2010). Hence, the question is “Does autonomous motivation mediate the relationship between IWE and TKS?”

### **4. Purpose of the Study**

The aim of this study was to examine the mediation effect of autonomous motivation on Islamic Work Ethics and TKS. This study is underpinned by Self Determination Theory and Islamic code of

conduct. Figure 1 depicts the conceptual model of the proposed relationships between Islamic Work Ethics, autonomous motivation, and TKS.



**Figure 01.** Conceptual Model of the Study

Specifically, this study hypothesised that:

*H1: There is a positive relationship between Islamic Work Ethics and TKS.*

*H2: There is a positive relationship between Islamic Work Ethics and autonomous motivation.*

*H3: There is a relationship between autonomous motivation and TKS*

*H4: Autonomous motivation mediates the relationship between Islamic Work Ethics and TKS.*

## 5. Research Methods

### 5.1. Participants and Procedure

The questionnaire was distributed to academics working in the Malaysian research-based universities through personal visit because the respondents are nearly located and approachable. Out of 750 questionnaires, 387 questionnaires were returned. Forty three invalid questionnaires were removed when the respondents did not respond to more than 25% of the items (Sekaran, 2003) or did not meet the criteria as permanent academics. In addition, 29 cases which have univariate outliers and multivariate issues were also removed and 315 cases were retained for further analysis

### 5.2. Measures

**IWE** is measured through seven pillars. Specifically, the measures for efforts, hard work, competency, cooperation, commitment, and morally ethical are adapted from Ali (1988) while transparency is adapted from Miller et al. (2002) and Ali (1988). Examples of the questions are as follows: “I deserve the salary that I earn”, “I should strive at work to achieve better results,” and “I benefitted myself and society by doing good work.” The reported Cronbach’s Alpha for all IWE measures is above 0.80 (Ali, 1988; Miller et al., 2002), and the current study used five-point Likert scale

**Autonomous motivation** are divided into four types of motivation namely intrinsic motivation, identified regulation, introjected regulation, and extrinsic motivation. Examples of the questions were as follows: “I share my knowledge because “it is fun”, “it is pleasant”, “I want to understand the subject”, and “I will get in trouble if I do not.” The measures for autonomous motivation were adapted from Ryan and Connell (1989) and Roth et al. (2007) with Cronbach’s Alpha ranging from 0.6 to 0.8 and it utilized seven-point Likert scale.

*Calculation for Autonomous Motivation*

Autonomous motivation is treated as an overall index based on a relative autonomy index (RAI) weighting system (Guay et al., 2010; Soufi, Damirchi, Sedghi & Sabayan et., 2014) as follow:

$$RAI = (\text{Intrinsic Motivation} * 3) + (\text{Identified Regulation} * 1) + (\text{Integrated Regulation} * 1) + (\text{Extrinsic Motivation} * 3)$$

TKS were adapted from Lin (2007) and the Cronbach’s alpha is more than 0.70. Examples of the questions are as follows: “I share my ideas about work with my colleagues”, and “I share my work experience with my colleagues.” TKS utilized seven-point Likert scale.

**5.3. Analysis**

PLS-SEM was used to test the significance of hypothesis through running PLS algorithm and bootstrapping procedure on full model and the results for measurement and structural model were obtained for constructs. The mediation analysis was tested through PLS.

**6. Findings**

**6.1. Measurement Model**

The factor loadings for Islamic Work Ethics items were above 0.60 (Hair et al., 2013), except items IWE25 (0.5613) and IWE26 (0.2230). Both items were deleted due to low factor loadings and this has improved the results of the measurement model. The AVE was increased from 0.6305 to 0.6640, composite reliabilities increased from 0.9797 to 0.9815. The factor loadings of all TKS items were above 0.70 and the AVE value was 0.9339. In addition, the reported composite reliability for TKS were 0.9826, which are above the threshold values of 0.70. Autonomous motivation was calculated in SPSS by using a formula based on relative autonomy index weighted score and was used as a single item value. Hair et al. (2013) claimed that single items can be used in the PLS path model assuming their initial weight as 1. In a single item, PLS does not calculate latent variable scores as the sum of its item score.

**6.2. Structural Model**

Table 1 reported the results for the structural path model that include the values for the Path Coefficient (β), standard deviation, t-statistics, and decisions made based on the results. These path coefficient values were obtained through running a PLS algorithm, while t-statistics values were obtained through the 5000 bootstrapping resamples procedure. The obtained results must be positive (path coefficient values are positive) and significant with regard to the t-statistics values (t-statistics values greater than 1.96 or 2.58). The result of structural model showed that Islamic Work Ethics has significant positive relationship with TKS (β = 0.1160; t = 3.621; p<0.001); and autonomous motivation (β = 0.4440, t = 18.527; p<0.001). The analysis also revealed that autonomous motivation has significant positive effect on TKS (β = 0.1070; t = 3.531; p<0.001). Hence, H1, H2, and H3 were supported.

**Table 01.** Results of Path Coefficient (β)

Hypothesis	Relationships	β	Standard Deviation	T –Statistics	P-Value	Decision
H1	IWE -> TKS	0.1160	0.0321	3.6210*	0.0000	Supported
H2	IWE-> AM	0.4440	0.0240	18.527*	0.0000	Supported
H3	AM -> TKS	0.1070	0.0301	3.5310*	0.0000	Supported

Note: \* value is significant 1 % (all the t-statistics values > 2.58)

The effect size was calculated by the Cohen's  $f^2$  path model formula (see Table 2). The researchers estimated two path models to calculate effect sizes; in the first path model,  $R^2$  calculated the hypothesised model as predicted by the full model, i.e.  $R^2$  included, and second, the path model was calculated by eliminating the exogenous variable one by one i.e.  $R^2$  excluded. Based on the results, both IWE and autonomous motivation have a large effect size.

**Table 02.** Cohen's  $f^2$  Path Model

Path	$R^2_{included}$	$R^2_{excluded}$	$f^2$	Effect Size
Full Model	0.567			
IWE → TKS	-	0.263	0.71	High>0.35
AM → TKS	-	0.303	0.61	High>0.35

The mediation of autonomous motivation between Islamic Work Ethics and TKS was examined by using Preacher and Hayes Process Macro in SPSS 20.0. The mediation macro was run by using 5000 bootstrapping procedure and confidence interval at 95%. The results of H4 was significant because of direct effects (relationship between Islamic Work Ethics and TKS) and indirect effects (relationship between Islamic Work Ethics and autonomous motivation and relationship between autonomous motivation and TKS). The results supported a partial mediation by autonomous motivation between Islamic Work Ethics and TKS. Table 3 reported direct effect for IWE and TKS (0.2816), with positive confidence interval values (not zero), and indirect effect with the mediation of autonomous motivation between Islamic Work Ethics and TKS (0.2306), with positive confidence interval values (not zero).

**Table 03.** The Direct and Indirect Effects of Autonomous Motivation

	Effect	SE	LLCI	ULCI
Direct effect of IWE on TKS (a*b)	0.2816	0.0677	0.1484	0.4147
Indirect Effect of AM between IWE and TKS (c')	0.2306	0.0458	0.1469	0.3278

The VAF calculated value of the indirect effect for Islamic Work Ethics was 0.5497, which showed that 55% of the total effect of Islamic Work Ethics on TKS was explained by autonomous motivation.

## 7. Conclusion

This present study provides evidence that autonomous motivation does partially mediate the relationship between Islamic Work Ethics and TKS. It is implied that Islamic Work Ethics is positively and significantly related to TKS both directly and indirectly. Accordingly, the findings of this test indicated the importance of autonomous motivation in the relationship between Islamic Work Ethics and TKS. Islam places a strong emphasis on acquisition and sharing of knowledge with others. These are the core deeds of Islam as encapsulated in the Quran and the Hadith, for instance: "One who treads a path in search of knowledge has his path to Paradise made easy by God..." (Riyadh us-Saleheen, 245), "And remind, for indeed, the reminder benefits the believers" (Al-Quran 51:55), and "Whoever is asked about knowledge and hides it, a bridle made of fire will be tied around his mouth on the Day of Resurrection".

In addition, the relationship between autonomous motivation and TKS is supported by the SDT of motivation which predicts that an employee's religious beliefs are more likely to motivate them to get involved in good behaviour such as sharing tacit knowledge (Ryan & Deci, 2000). Hence, they are autonomously satisfied in their inner-self and share their tacit knowledge without any pressure and force. This is a new finding as previous studies only found a direct relationship between Islamic Work Ethics and general knowledge sharing (e.g., Mursleen et al., 2015; Lin, 2007; Wang, 2004), Islamic Work Ethics and intrinsic motivation (e.g., Hayati & Caniago, 2012; Zaman et al., 2013); and between autonomous motivation and knowledge sharing (e.g., Gagné, 2009; Wang & Hou, 2015; Yeon et al., 2015). These studies however unable to discern which type of motivation really influences TKS. Hence, by utilising autonomous motivation, this study enables us to explain its effects in terms of other types of motivation such as identified and introjected motivations; and, it measures individuals' behaviour based on the RAI, which gives a true picture of individual motivation instead of intrinsic or extrinsic motivation per se (Ryan & Deci 2000). Moreover, the findings of this study proved that individuals have both type of intrinsic and extrinsic motivations. The only different is the degree towards which direction it is more inclined; either more towards intrinsic or extrinsic motivation.

A lesson for university administrator is to ensure TKS is so crucial and cannot be neglected especially for a research-based university. University managements should underline and foster ethical work values among their academics for instance by encouraging and implementing an Islamic code of conduct as a part of their culture to promote tacit knowledge sharing. This is important so that academics will understand that their responsibilities regarding expected behaviour are not only limited to work, but is also based on the implementation of Islamic beliefs which provide a guideline for daily work behaviour such as sharing, conveying, and transferring knowledge to others. In addition, necessary actions should be taken by management to motivate academics to share their knowledge. It is well established that individuals' motivation is directly related to the success of knowledge sharing, thus evidently, the same case applies to academics. The existing implemented policies to promote academic research and teaching activities often assume that successful knowledge sharing is affiliated with economic incentives. However, in truth, academics are motivated by a complex mix of motivations and in particular identified regulation.

This study has some limitations such as its use of the cross-sectional method. Future research should consider a longitudinal method as Islamic Work Ethics requires time to develop. So, by considering longitudinal study, the effect of Islamic Work Ethics on TKS can be better understand. The present study collected the data from single respondents, which can limit the finding of the study. Another point to consider is multiple informant approach as TKS requires two parties or a dyad relationship. Hence, using multiple informant could provide more insights in the knowledge sharing process.

## **Acknowledgments**

Thank you to Fundamental Research Grant Scheme [Project Code FRGS/1/2014/SS05/UKM/02/2] in funding the research.

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