

## EFFECTS OF TOP MANAGEMENT SUPPORT ON KNOWLEDGE TRANSFER AND SHARING: THE MEDIATING ROLE OF TRUST

Houcine Meddour, Oussama Saoula, Abdul Halim Abdul Majid\*, Mohamed Abdellatif Abu Auf  
School of Business Management, Universiti Utara Malaysia, 06010 Sintok, Kedah, Malaysia  
\*ahalim@uum.edu.my

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### Abstract

**Purpose:** This paper examines the relationship between top management support and knowledge transfer and sharing in Multimedia Super Corridor MSC status organizations, using trust as a mediator. A theoretical model was tested through a survey carried out by 132 middle managers in MSC status organizations in Malaysia.

**Methodology:** Partial Least Squares Structural Equation Modelling (PLS-SEM) was employed for data analysis.

**Results:** The obtained results show that the top management support will facilitate knowledge transfer and sharing.

**Implications:** The empirical evidence confirmed that the direct and indirect relationships between top management support, trust and knowledge transfer, and sharing were found to be fully supported, including the relationship between trust and knowledge transfer and sharing. Finally, trust fully mediates the relationship between top management support and knowledge transfer and sharing.

**Keywords:** *Top Management Support, Knowledge Transfer, and Sharing, Trust, Multimedia Super Corridor (MSC), Empirical Evidence*

### INTRODUCTION

Knowledge has become progressively critical for organizations in terms of gaining a competitive advantage as they attempt to compete in the knowledge-based era. Therefore creating an actively cultivated knowledge transfer and sharing environment is necessary for effective knowledge management across an organization as a need to promote it among their members. Since knowledge that is not well managed and shared corrodes easily, knowledge transfer and sharing are as important as other assets and resources for the survival and success of the organization.

Knowledge transfer and sharing is a building block for the success of the organization and it is being adopted as a survival strategy. In addition, organizations start naturally viewing knowledge transfer and sharing as a response to the external pressure to reduce cost and improve the quality of services they offer to the public. Similarly, knowledge generates economic value when it is used to solve problems, exploring new opportunities and making decisions (Giampaoli et al., 2017; Saoula et al., 2018). In this respect, knowledge transfer and sharing have been identified as capable of playing a significant role in organizations (Sandhu et al., 2011; Paul, 2014; Van Der Bank and Van Der Bank, 2014; Moustafa et al., 2017; Auf et al., 2018; Castro, 2018). In the Malaysian context, there is limited evidence of the construct validity of knowledge transfer and sharing for the Malaysian organizations to be a knowledge-based society (Daud, 2012). Hence, it is worthy to study the factors that affect knowledge-sharing and transfer behavior, i.e. top management support and trust.

### KNOWLEDGE TRANSFER AND SHARING

Knowledge is widely considered to be an essential commodity to organizations, resulting in competitive advantage (Al-Kurdi et al., 2018). Moreover, with the growing significance of knowledge management in an organization, facilitation of knowledge transfer and sharing among individuals (which is usually concentrated on sharing experiences, skills, and know-how) had been a topic of interest for organizations.

It is important to note that knowledge is viewed as a key resource and strategic asset that contributes to improve and flourish organizations, it is appropriate for Multimedia Super Corridor MSC status organizations to base their entire business on knowledge to achieve a knowledge-based society vision 2020 (Daud, 2012; Yanga and Yenb, 2016; Alfauzan and Tarchouna, 2017; Sai, 2017; Irbawati et al., 2019). In this respect, this study assesses the construct validity of knowledge transfer and sharing as a function of the interaction of the organizational capacity top management support, this is congruent to the assertion by Yusof and Ismail (2009) that it is compulsory for the government of Malaysia to encourage its manpower to transfer and share their knowledge among themselves. To fill the gap, this study intended to

investigate the extent to which organizational factors have impacted knowledge transfer and sharing through trust in helping to shape a new development model in MSC status organizations to enhance the overall vision of 2020.

### TOP MANAGEMENT SUPPORT

Based on the literature, top management support is one of these dimensions which considered as the capability of managers to impact their subordinates to enhance efficiency to attain organizational objectives ([García-Sánchez et al., 2019](#)). The efficiency of top management is to create a positive impact on individuals and the organization overall ([Aboyassin and Abood, 2013](#); [Saoula and Johari, 2016](#)) by encouraging and motivating employees to increase their abilities. In this context, many studies have confirmed this influence on organizational outcomes.

The finding by [Daud \(2012\)](#) indicates that managers and owners of the organizations need to acquire more knowledge in order to enhance organizations because the success of organizations is linked to the effectiveness of top management support ([Svensson and Wood, 2006](#)). Managers also need to convert knowledge they acquired, created or generated in order to improve their organization. This process enables them to refresh and update their current knowledge. This is in accordance with the findings by [Lakshman \(2007\)](#) who identifies the role of top management support in managing information and managing knowledge in the organizations, both internally for coordination purposes and externally as it is directed to customers. [Yu et al. \(2004\)](#) asserted that organizational effectiveness could be predicted by characteristics of an organization's top management. Accordingly, top management support can influence organizational members' knowledge and management activities by supporting knowledge among organization ([Yu et al., 2004](#)). This is in line with [Wei et al. \(2009\)](#) assertion that top management refers to the ability of an organization to link knowledge management behaviours with the organizational strategies, exploit the opportunities, promote the values of knowledge, communicate the best strategies, facilitate learning organizations to enhance knowledge ([Wei et al., 2009](#)). Because less commitment and support from top management leads to unsuccessful knowledge activities. Further, lack managerial direction can limit knowledge sharing practices in terms of facilitating the opportunities to get and learn new knowledge by training, sharing and updating new ideas and thoughts at all organizational levels ([Riege, 2005](#)).

### TRUST

Employees always restrain themselves from sharing their valuable resource with others as they realize that knowledge displays their potential and capability in organization and by disseminating such valuable resource their importance and current status might reduce in the organization ([Naeem et al., 2019](#)). The case where employees transfer and share their knowledge, skills, and experience with their peers is only when trustworthiness exist among them. Accordingly, [Levin and Cross \(2004\)](#) suggested that there are two principal forms of trust which can enhance knowledge sharing: benevolence based trust and competence based trust. In this context, benevolence based trust is identified as the extent to which a trustee believed that he or she will not harm another party even when given the opportunity to do so. For instance, if a trustee (worker) needs information from a trustor (co-worker) then trustee will seek help to obtain this information, but in doing so the worker must be able to trust that the co-worker will not do harm by giving the wrong information even if the co-worker has the opportunity to do so ([Ling, 2011](#)) considering that, the action of the employees in supporting their co-workers is based on their willingness to do so ([Saoula et al., 2016](#)). While affect-based trust involves the emotional links between individuals who express care and concern about others. From this, [Rhodes et al. \(2008\)](#) affirmed that interpersonal trust plays a vital role in transferring and sharing knowledge among individuals. This is because, trust in an organization builds better relationships in order to achieve more cooperation, innovation and exchange information and knowledge. Also can be built upon the expectations that people have for others or themselves ([Saini et al., 2018](#)).

From this, trust can be improved through open communication between all levels in an organization, including top management as it is considered to be a source of trust among members, by motivating them “extrinsically and intrinsically” to create efficient knowledge transfers ([Fernandez-Perez et al., 2012](#)). Higher levels of trust are achieved when a long-lasting relationship is built resulting in more effective communication that reduces uncertainty ([Daghfous et al., 2018](#)). In this regard, managers have to encourage their employees regarding transferring and sharing knowledge to enhance their efficiency ([Cruz et al., 2009](#)). Because the efficiency of employees will lead organizational knowledge processes to be crucial in achieving and sustaining competitive advantage.

## THE RELATIONSHIP BETWEEN TOP MANAGEMENT SUPPORT, TRUST AND KNOWLEDGE TRANSFER, AND SHARING

Several studies have emerged the influence of dimensions on knowledge transfer and sharing. Top management support is one of these dimensions which was reported to have a link to knowledge transfer and sharing ([McMurray et al., 2012](#)). Means that top management support plays different roles in creating new positive knowledge in an organization such as top management have to encourage and support learning among individuals and groups in the organization. Which is, in turn, lead to apply newly acquired knowledge to update current knowledge through “workshops, discussion forums, training needs and face to face communications” these are the main methods in facilitating, share and transfer knowledge. This is because, top management support refers to “the degree to which top management understands the importance of knowledge management and the extent to which top management is involved in knowledge management practices”([Intezari et al., 2017](#)). Accordingly, the study predicted that top management support exerts a positive influence on organizational members’ knowledge and management activities as recommended by [Burmeister and Deller \(2016\)](#) that organizational support practices can enable the identification of areas for improvement. Therefore, it is predicted that:

H1: Top management support will have a positive effect on knowledge transfer and sharing.

This section hypothesizes that trust mediates the relationship between top management support and knowledge transfer and sharing. In relation to this, most studies ([Fernandez-Perez et al., 2012](#); [Mukherjee et al., 2012](#)) asserted that organization achievement could be predicted by the characteristics and support of top management in terms of creating a supportive climate to sustain trust which is based on manager's communication and supportive behaviors. Which is, in turn, affects the relationship between members. As top management support can offer opportunities to communicate knowledge by the interaction that leads to promote trust ([Waheed et al., 2013](#); [Muneer et al., 2014](#)). The success of knowledge transfer and sharing is linked to top management support to promote the climate of trust. Based on this, it is predicted that:

H2: Trust mediates the relationship between top management support and knowledge transfer and sharing.

This paper also postulated that there is a link between top management support and trust. The study suggested that top management support related to trust as it is one of the resources and capabilities that can promote trust among organizations. The study by [Bartram and Casimir \(2007\)](#) has shown that top management and trust are correlated to achieve various outcomes such as satisfaction. In this respect, trust considered a willingness to depend on another party (Mayer, 1995). As well as, top management support is crucial in creating a supportive climate and providing sufficient resources ([Lin, 2007](#)). To do so, sustaining trust is based on manager’s communication and supportive behaviors, they should offer praises and encouragements for employees ([Wang et al., 2017](#)) this is because manager's behavior is directly related to employee trust ([Joseph and Winston, 2005](#)). Based on this, it is predicted that:

H3: Top management support will have a positive effect on trust.

Trust is hypothesized to have a relationship with knowledge transfer and sharing ([Lee and Choi, 2003](#); [Al-Adaileh and Al-Atawi, 2011](#); [Jahani et al., 2011](#); [Evans, 2012](#); [Waheed et al., 2013](#); [Muneer et al., 2014](#); [Osmani et al., 2014](#); [Pangil and Moi, 2014](#)). In most studies knowledge transfer and sharing is improved through creating an appropriate environment of trust ([Daud and Yusuf, 2008](#); [Daud and Yusoff, 2010](#); [Yang, 2012](#)). Therefore, trust can enhance effective processes of knowledge transfer and sharing. In this regard, trust is a key element in promoting knowledge sharing by increasing commitment, interaction and communication among members ([Waheed et al., 2013](#)). To do so, it is predicted that:

H4: Trust will have a positive effect on knowledge transfer and sharing

## RESEARCH MODEL

Based on the review of the literature, the model includes top management support as an independent variable and knowledge transfer and sharing as the dependent variable. Further, the relationship between the independent variable and the dependent variable is mediated by trust. However, trust as a mediator variable explains the influence of relationships between independent and dependent variables. Moreover, the mediator variable describes how and why this influence occurs.

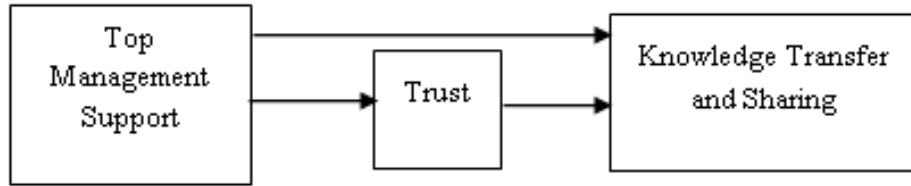


Diagram 1: Research Model

## RESEARCH METHODOLOGY

### Survey Instrument

To provide empirical evidence on the relationship between top management support, trust and knowledge transfer and sharing in MSC status organizations in Malaysia, a self-administered questionnaire was conducted. The questionnaires consisted of the critical constructs presented in Figure 1. A five-point Likert scale, where represented (1= strongly disagree) and (5= strongly agree), was utilized to measure the extent to which middle managers agree that the knowledge transfer and sharing were implemented.

### Sampling Method and Procedure

The Target population of this study refers to the Multimedia Super Corridor MSC status organizations in Malaysia. Therefore, the unit of analysis in the study is the organization. The sampling frame refers to the listed companies in all MSC status organizations located in Klang Valley, Kedah, and Penang, in Malaysia. The list of companies' name was obtained from the official portal of Multimedia Development Corporation websites ([http://www.mscomalaysia.my/status\\_company](http://www.mscomalaysia.my/status_company)) with company details, which is the source of sampling because it encompasses all listed companies under MSC status organizations. Further, these companies are grouped into four clusters, which consist of the Information Technology (InfoTech) Cluster, the Creative Multimedia (CMC) Cluster, the Shared Services & Outsourcing (SSO) Cluster, as well as Institutions of Higher Learning and Incubators (IHLs & Incubators), these organizations were established to provide the ecosystem to attract ICT investors and promote the growth of local ICT companies to lead the nation's transformation towards a knowledge-based economy.

The following positions represented the middle managers: vice president, general manager, branch manager, unit manager, deputy director and director, these are positioned between top management and support staff, a total of 335 organizations was picked. Finally, a total of 132 responses were obtained in the following six-month period which used in the final analysis for this paper. The data were analyzed using the Partial Least Squares (PLS-SEM).

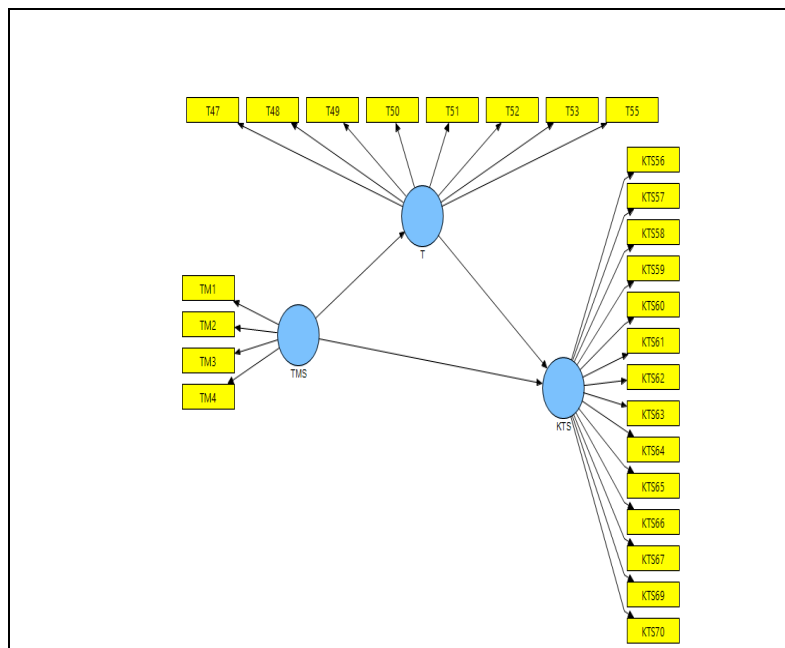


Diagram 2: Research Model

## RESEARCH FINDINGS AND DISCUSSION

This paper used PLS structural equation modeling (SEM). The first step in the PLS analysis before testing the hypotheses of the study is to assess the measurement model or the outer model. To do so, the two main criteria to assess the measurement model were convergent validity and discriminated validity (Hair et al., 2014). Convergent validity of this paper is the extent to which multiple items are measuring a particular concept (Khozaei et al., 2012). To assess convergence validity, the present paper used outer loadings, composite reliability (CR) and the average variance extracted (AVE), as suggested by Hair et al. (2014). Table 1 provides the results of loadings which has exceeded the recommended value of 0.7 (Khozaei et al., 2012; Hair et al., 2014; Neupane et al., 2014). Composite reliability (CR) values also were assessed to depict the extent to which the indicators reflect the latent construct; all values ranged from 0.884 to 0.942. Which exceeded the recommended value of 0.7 (Hair et al., 2014). The value of average variances extracted (AVE) is greater than the recommended value of 0.5 (Hair et al., 2014) ranged from 0.541 to 0.657. Cronbach's alpha also is greater than the recommended value of 0.7 ranged from 0.823 to 0.934.

For the present paper, it was evidently enough to confirm that the values are all above the cut off values given in the literature for loadings (> 0.5), CR (>0.7) and the AVE (> 0.5), Cronbach's alpha (>0.7). From this, the measures have sufficient convergent validity. As depicted in Table 1.

**Table 1:** The Convergent Validity Analysis

Constructs	Items	Loadings	CR	AVE	Cronbach's alpha
KTS	KTS56	0.762	0.942	0.541	0.934
	KTS57	0.784			
	KTS58	0.810			
	KTS59	0.836			
	KTS60	0.760			
	KTS61	0.781			
	KTS62	0.633			
	KTS63	0.715			
	KTS64	0.800			
	KTS65	0.720			
	KTS66	0.637			
	KTS67	0.757			
	KTS69	0.626			
	KTS70	0.623			
T	T47	0.744	0.919	0.587	0.898
	T48	0.762			
	T49	0.839			
	T50	0.816			
	T51	0.656			
	T52	0.785			
	T53	0.778			
	T55	0.732			
TMS	TMS1	0.810	0.884	0.657	0.823
	TMS2	0.856			
	TMS3	0.876			
	TMS4	0.687			

Notes: TMS: Top Management Support; KTS: Knowledge Transfer and Sharing; Trust; T: Composite reliability; CR: average variances extracted; AVE.



For this paper, discriminant validity examined by comparing the correlations between each construct, at the same time, the square roots of the average variance extracted (AVE) should be greater than the squared correlation for each construct. In other words, the squared (AVE) for all the constructs were presented in the correlation matrix along the diagonal. Means squared (AVE) should be higher than the off-diagonal elements in the responding row and column to provide good evidence of discriminant validity, as shown in Table 2.

**Table 2:** Discriminant Validity Analysis

	KTS	T	TMS
KTS	0.735		
T	0.707	0.765	
TMS	0.489	0.372	0.810

The correlations for each construct used in this study were less than the square root of (AVE). From this, the measurements have a discriminant validity of the outer model. Once the reliability and validity of the outer model are established, the next step is to present the results of the structural model within the inner model to evaluate the hypothesized relationships. After running the PLS-SEM algorithm, path coefficients represent the hypothesized relationship among the constructs. To determine whether the coefficients are statistically significant or not, bootstrapping was conducted where a large number of subsamples (5000) are taken from the original sample to give t-value for significance test. After running the bootstrapping procedure Table 3, shows the standardized path coefficient ( $\beta$ ), standard error, t-values, p-values and decision taken. Results of this paper showed the relationship effects within the constructs. As indicated in Table 3 direct relationships between top management support, trust and knowledge transfer and sharing have demonstrated significant positive effects.

As illustrated in Table 3, the relationship between top management support and knowledge transfer and sharing is significantly supported at 0.01 level of ( $\beta = -0.262$ ,  $t = 4.156$ ,  $p = 0.000$ ). Top management support and trust is supported at level of significance of ( $\beta = 0.373$ ,  $t = 4.911$ ,  $p = 0.000$ ). The statistical evidence demonstrated the strong mediating effect of trust on the relationship between top management support and knowledge transfer and sharing at 0.01 levels of significance ( $\beta = 0.235$ ,  $t = 5.164$ ,  $p = 0.000$ ). The relationship between trust and knowledge transfer and sharing is strongly supported at 0.01 level of significant ( $\beta = 0.610$ ,  $t = 10.374$ ,  $p = 0.000$ ).

Mediating Effect: The mediation test for this part was conducted to assess if the mediator (trust) could mediate the relationship between top management support and knowledge transfer and sharing. To do so, the significance (t-value) of the indirect path coefficients and standard error were calculated to determine the mediation effect. In other words, the PLS formula was used to assess the mediating effects.  $T = a*b / sd(a*b)$

**Table 3:** Results

Hypothesis	Beta	Std Error	T-Value	P-Value	Decision
TMS -> KTS	0.262	0.063	4.156	0.000	Supported
TMS -> T	0.373	0.076	4.911	0.000	Supported
TMS->T->KTS	0.235	0.045	5.164	0.000	Supported
T -> KTS	0.610	0.059	10.374	0.000	Supported

Based on the previous calculation of the mediation results, this section indicates that there is an indirect effect of top management support through trust on knowledge transfer and sharing. Thus, to estimate the size of the indirect effect, the variance accounted for value (VAF) was conducted to determine the ratio of the indirect effect to the total effect of top management support on knowledge transfer and sharing which explained by the trust. To do so, the study used the formula of variance accounted for value (VAF) as follows:

$$VAF = a*b / a*b+c$$

The result of (VAF) is 0.475 meaning that 47.5% percent of the total effect of top management support on knowledge transfer and sharing is explained by indirect effects of trust. Indicating that trust has a partial mediation between top management support and knowledge transfer and sharing. To this end, the (VAF) has an outcome of  $VAF \Rightarrow 20\%$  and  $\leq 80\%$ , which can be described as a partial mediation as determined by [Hair et al. \(2014\)](#).

## DISCUSSION

This paper has theoretically pushed the boundary of knowledge forward by achieving the importance of top management support in encouraging knowledge transfer and sharing in MSC status organizations. The empirical findings of this study confirm the prominent correlation between top management support, trust and knowledge transfer, and sharing. The direct effect of top management support has a significant positive influence on both trust and knowledge transfer and sharing as shown in Table 3 (TMS  $\rightarrow$  KTS:  $\beta= 0.262$ ,  $t= 4.156$ ,  $p= 0.00$ ), (TMS  $\rightarrow$  T:  $\beta= 0.373$ ,  $t= 4.911$ ,  $p= 0.00$ ). It seems that the effect of top management support on trust is distinctly larger than the effect of top management support (TMS) on knowledge transfer and sharing (KTS). While the direct effect of trust (T) on knowledge transfer and sharing (KTS) reveals positive and largest effect (T  $\rightarrow$  KTS:  $\beta= 0.610$ ,  $t= 10.374$ ,  $p= 0.00$ ). These results offer additional support to previous studies that top management support provides a proper environment to create, organize, transfer and share knowledge ([Wei et al., 2009](#)).

The empirical findings also confirmed the mediator role of trust in the relationship between top management support (TMS) and knowledge transfer and sharing (KTS). The indirect effect of top management support (TMS) on knowledge transfer and sharing (KTS) (TMS $\rightarrow$ T $\rightarrow$ KTS:  $\beta= 0.235$ ,  $t= 5.164$ ,  $p= 0.00$ ) indicating that the present mediation result is strongly supported. Applying newer approaches for mediation analysis, bootstrapping procedure is one of the most valid and powerful methods in testing the mediation effect ([Hayes and Preacher, 2010](#); [Hair et al., 2014](#)) where confirmed the mediator role of trust (T) in knowledge transfer and sharing.

This finding is consistent with the previous studies by [Levin and Cross \(2004\)](#) that trust between top managers is an important process which contributes to knowledge transfer with a high level of performance. [Zhou et al. \(2010\)](#) have proved that the indirect and total effects of social ties influence knowledge transfer, as it is bringing vast trustworthiness. Inconsistent with the hypotheses of this study knowledge transfer and sharing is based on the organizational support, and the findings of the current study confirm this. Top management support loads more trustworthiness and frequent communications, which will be easier for practice sharing. This study reminds scholars to pay more attention to the role of trust in explaining how knowledge is transferred and shared among the individuals in the organizations. Therefore, this finding validated and extended social-psychological context ([Rempel et al., 1985](#)) that the atmosphere of mutual trust as a psychosocial variable can encourage knowledge transfer and sharing. The study also has provided a new perspective regarding the validity and the ability of PLS-SEM in predicting the impact of top management support on knowledge transfer and sharing through trust.

In light of the findings, it is obvious that the integral relationships between all variables have important contributions for managers in MSC status organizations. It is therefore evident that the atmosphere of trust has direct and indirect strong relationships in promoting knowledge transfer and sharing. Thus, managers can facilitate knowledge transfer and share regarding trust through their support, to overcome barriers that promote or hamper successful knowledge, managers have to develop the individual thinking by creating a sense of confidence among employees which is a good reason for trustworthiness. Moreover, the results suggest that managers' attitudes and actions should be sensitive in emotional bonds, including mutual care, emotional healing, assisting employees to succeed and grow. From this, managers should understand and value the interrelations existing between management and employees for better sharing and transferring knowledge.

## LIMITATIONS AND FUTURE DIRECTIONS

The hypothesis tested in this study received full empirical support. The results were consistent with the evidence from the literature that top management support has a positive impact on knowledge transfer and sharing ([Lin, 2007](#)). The current results were consistent with and validating the previous findings in the field of knowledge management regarding the significant relationships with knowledge transfer and sharing. In a similar vein, this study validates the overall instruments that have been used to evaluate the constructs of study, which were utilized previously in the western context.

The findings indicate that many issues need to be investigated in MSC status organizations. Therefore, future research needs to explore more dimensions to provide more insights on knowledge transfer and sharing in MSC status organizations such as environmental indicators, to control the organizational cultural differences. However, future research also could use the mixed methodology regarding qualitative and quantitative approach with the big size of the sample to provide a deeper understanding of knowledge transfer and sharing.

The scope of this study was MSC status organizations which means the results could be generalized only to MSC status. The future research should consider covering all organizations (manufacturing, services) including MSC organizations. Besides that, a comparative study using the other organizations would be very insightful in providing more understanding factors related to knowledge transfer and sharing different cultural environments. By doing so, the theoretical framework of this study may be more applicable in other settings. Because different organizations mean different structure and different nature of work, which is, in turn, may provide different findings related to knowledge transfer and sharing.

## CONCLUSION

In the Malaysian context, [Osmani et al. \(2014\)](#) and [Ling \(2011\)](#) proposed a conceptual framework that includes motivational factors to influence knowledge sharing behavior through trust as a moderator in IT organizations' members in Malaysia. With this, [Osmani et al. \(2014\)](#) insisted that the vital role of trust between individuals remains the ability to facilitate knowledge transfer and sharing. For this, previous studies have shown the importance of trust in increasing individuals' desire and willingness to share information and ideas ([Evans, 2012](#); [Osmani et al., 2014](#)). For the present study, trust is a mediator variable that links top management support and knowledge transfer and sharing in MSC status organizations. The study utilizes trust as a mediator because of its ability to examine and explains why and how predictor factor influence and affect knowledge transfer and sharing regarding the capability of top management supporting trust and the consequences of it. Ultimately, the study suggesting higher support from top management to gain higher knowledge transfer and sharing in MSC status organizations.

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