

MEDIATION EFFECT OF KNOWLEDGE SHARING: A CASE STUDY OF MALAYSIAN NGO CULTURE AND EFFECTIVENESS

Nurul Hidayana Mohd Noor¹, Siti Hajar Abu Bakar Ah¹,
Mohd Awang Idris²

¹Department of Social Justice and Administration
Faculty of Arts and Social Science
University of Malaya, Kuala Lumpur, Malaysia.

²Department of Anthropology and Sociology
Faculty of Arts and Social Science
University of Malaya, Kuala Lumpur, Malaysia.

Email: nurulhidayana@yahoo.com, shajar@um.edu.my,
idrma@um.edu.my

ABSTRACT

Referring to the resource-based view (RBV), this study aims to examine the mediating effect of knowledge sharing (KS) towards the relationship between organizational culture (OC) and NGO effectiveness (EE). In this study, a total of 190 participants from 19 NGOs in Klang Valley area, Malaysia, were approached with a questionnaire survey. This study only niches its focus on registered welfare and employment NGOs. A total of 144 valid responses were received (75.8 percent of response rate). Regression analysis was used to test the proposed model. The results revealed that KS serves as a partial mediator between OC and EE. The study makes methodological contribution by showing the effect of OC on EE and the role of KS as mediator from the context of Malaysian voluntary sector.

KEYWORDS: *organizational culture, knowledge sharing, NGO effectiveness, mediating effect*

1.0 INTRODUCTION

Throughout the world, non-governmental organizations (NGOs) have experienced a substantial growth in employment and services provided. Together with these impressive figures, NGOs nowadays are also operating under unpredictable and challenging environment with several identified weaknesses, for example, scarcity in donation, weak institutional capacity, low level of self-sustainability, as well as the rising competition for donor, volunteer, and public support (Buteau *et al.*,

2014). These encounters present a major threat to NGO sustainability. In addressing these matters, resource-based view (RBV) proposed that an organization can utilize its internal resources (i.e., all assets, capabilities, organizational processes, information and knowledge, and others) in order to achieve a superior performance (Barney, 1991). These resources include tangible resources (e.g., infrastructure asset and capital), intangible resources (e.g., culture and knowledge) or a combination of both. In this study, we emphasize on the intangible resources, since a body of knowledge has recognized it as the basis for sustainable competitive advantage (e.g., Dutta, 2015; Miller *et al.*, 2015). Unlike tangible resources, these resources are generally rare, socially complex in nature, and potentially offer a distinct value for the organization.

Thus, the main objective of the present study is to investigate the effect of specific organizational intangible resources, which are organizational culture and knowledge sharing on NGO effectiveness. In addition, this study also proposes the potential mediation effect of knowledge sharing towards the proposed relationship. These variables have been selected due to their significant contribution in previous studies. For example, according to a seminal paper by Denison and Mishra (1995), the topic of culture and effectiveness are of importance in most organizational studies. Besides that, Hall and Goody (2007) discovered that the most significant obstacle to effective knowledge sharing is culture. Moreover, scholars have also begun to recognize knowledge sharing as an idiosyncratic variable that drives for organizational achievement (Kim and Hancer, 2010; Mura *et al.*, 2013). Although the significant contribution of the study's variables has been extensively deliberated, most studies have a limited empirical basis and the majority can typically be described as a conceptual basis (e.g., Herman and Renz, 2008; Ipe, 2003), which illustrates the lack of in-depth understanding of these intangible resources. To date, much of the research on these variables have been conducted in public and private organizations (e.g., Jain *et al.*, 2015; Tangaraja *et al.*, 2015) and the research on NGO is sparse. Thirdly, literature within the Western world is extensive whereas the literature in the Eastern world is inadequate (Andriessen and van de Boom, 2007). This may lead to angst among Eastern researchers and practitioners. Finally, many researches have only examined the direct effect of these variables, which could limit our understanding on the causal effect (e.g., Hogan and Coote, 2014; Wu *et al.*, 2010; Mura *et al.*, 2013).

Recognizing these gaps, rather than hypothesizing a direct causal relationship between organizational culture and NGO effectiveness, we

introduce a mediational model that hypothesizes that organizational culture influences knowledge sharing behavior, which in turn influences NGO effectiveness. In this case, our study adds value to the previous knowledge by showing the effect of organizational culture dimension (i.e., trust, collaboration, and learning) and the role of knowledge sharing in mediating the relationship between culture and NGO effectiveness from the context of Malaysian third sector. In the following sections, a literature review is conducted to clarify the relationship between organizational culture, knowledge sharing, and NGO effectiveness. In this section, we also present our hypotheses and propose a research model. Then, the research methodology is explained. Finally, the findings and results are discussed in terms of theoretical and practical implications.

1.1 Literature Review

1.1.1 Organizational Culture and its Impact on NGO Effectiveness

Most empirical studies of organizational culture share similar perspectives in describing culture. These include: 1) related to history and tradition, 2) have some depth that is difficult to measure and explain, 3) collective and shared within organizations, 4) primarily having to do with meanings, understandings, beliefs, knowledge, and other intangibles, and 5) holistic, intersubjective, and emotional (Hofstede *et al.*, 1990). With these unique characteristics, a body of knowledge has believed that organizational culture is held to be the most important resource of an organization, thereby facilitating the organization's achievement of its goals (e.g., Hogan and Coote, 2014; Norliah *et al.*, 2011). For example, according to a study conducted by Wu *et al.* (2010), organization culture of team spirit and innovation has positive effects on team effectiveness. This happens because culture can direct organization members in accomplishing shared goals and also facilitates the learning process. Furthermore, Wei *et al.*'s (2014) findings have demonstrated that culture impacts market responsiveness, which is important for fabricating superior performance. In a similar vein, Yazici's (2009) survey-based research on 86 project professionals from various U.S. service and manufacturing organizations has revealed that clan organizational culture (i.e., family-like, with a focus on mentoring, nurturing, and doing things together) is the sole contributing factor to project and performance. This study also shows that in order to deal with project time, budget, and expectations issues, culture will promote sharing, collaboration, and empowerment. Thus based on the discussion, it is expected that:

H1: Organizational culture significantly predicts NGO effectiveness

1.1.2 Organizational Culture and its Impact on Knowledge Sharing

In consensus, previous studies have discovered that culture is a critical driver of knowledge sharing (Suppiah and Sandhu, 2011; Al-Alawi *et al.*, 2007; Alrawi *et al.*, 2013). De Long and Fahey (2000) identified four ways on how organizational culture influences knowledge behavior. These include: 1) culture defines assumptions about which knowledge is important, 2) it creates the organizational context for social interactions, 3) it mediates the relationships among individual, group, and organizational knowledge, and 4) it impacts the adoption and creation of new knowledge. Chang and Lin's (2015) study has discovered that organizational culture, such as result-oriented, tightly controlled, job-oriented, closed system, and professional-oriented, affects the intention for sharing knowledge. In return, effective knowledge sharing offers a wide range of benefits such as improved corporate efficiency, effectiveness, innovation, and customer service. In addition, Shao *et al.*'s (2015) empirical results have suggested that hierarchical culture that focuses on efficacy and uniformity is positively related with employees' explicit knowledge sharing. Finally, both Wiewiora *et al.*'s (2014) and Sandhu's (2011) studies have found that mutually reinforcing the effect of culture could shape tacit knowledge sharing behaviors. Tacit knowledge (i.e., embedded in human mind, experience, and skills) is regarded as being the most valuable type of knowledge and lack of focus on tacit knowledge directly reduces the organizational capability to innovate. Based on the discussion, culture is assumed as the best soft aspect in promoting knowledge sharing behavior, thus, it is expected that:

H2: Organizational culture significantly predicts knowledge sharing

1.1.3 Knowledge Sharing and its Impact on NGO Effectiveness

Knowledge sharing can be defined as "a process where individuals mutually exchange their tacit and explicit knowledge to create new knowledge" (van den Hooff and de Ridder, 2004, p.119). Knowledge sharing consists of two behaviors, which are knowledge donating and knowledge collecting conversing knowledge (van den Hooff and de Ridder, 2004). It is widely known that knowledge is the critical asset to both individual and organization in order to succeed and gain competitive advantage (Mura *et al.*, 2013; Huang, 2013). Radaelli *et*

al.'s (2012) study for example, has provided evidence that employee who share knowledge will engage more in creating, promoting, and implementing innovations. This study also has revealed a link between knowledge sharing behavior and innovative work behavior, which could lead to organizational transformation. Next, Yang's (2007) study among 499 participants across 9 international tourist hotels in Taiwan has suggested that knowledge sharing would facilitate the transformation of collective individual knowledge to organizational knowledge and this would result in the advancement of organizational learning and the enrichment of organizational effectiveness. Besides that, Kim and Hancer's (2010) findings have revealed that the knowledge management resource inputs affect organizational effectiveness. These inputs include information technology, incentive, and knowledge sharing. In relation to the third sector, knowledge sharing is believed to be the most important tool for managing project information and knowledge (Reich *et al.*, 2008). In a similar vein, Ragsdell *et al.* (2014) stated that project effectiveness is achieved through knowledge sharing because the exchange of know-how and expertise help in managing the activities. Since knowledge sharing results in effectiveness, we posit that:

H3: Knowledge sharing significantly predicts NGO effectiveness

1.1.4 Knowledge Sharing as Mediator

Despite the lack of studies in examining the effect of third variable, some inspiring studies have discovered and proved the potential mediation effect of knowledge sharing. For example, Zheng *et al.* (2009) have proven the intermediary role of knowledge management towards the relationships between organizational culture, structure, strategy, and organizational effectiveness. Then, based on data from 270 employees of telecommunication sector of Pakistan, Waheed *et al.*, (2013) study indicated that knowledge sharing mediates the impact of information technology, organizational culture, teamwork, trust, employee motivation to disseminate their knowledge on organizational performance. Next, based on data collected from 228 respondents, Tong *et al.* (2014) revealed that knowledge sharing plays an important mediating role between organizational culture and job satisfaction. Job satisfaction in return, can help to improve organizational effectiveness. Finally, in exploring the extent to which knowledge sharing mediates organizational cultural factors and knowledge management effectiveness among Korean organizations, Moon and Lee's (2014) study shows that knowledge sharing plays a mediator role in the effect of trust, collaboration, and learning on knowledge management

effectiveness. As previously discussed, past studies have focused too much on the examination of the variable within the context of private and public organizations and only few researches have examined the variables in the context of voluntary organization. Thus, based on the discussion, this study proposes the following hypothesis:

H4: Knowledge sharing mediates the relationship between organizational culture and NGO effectiveness.

Based on the literature review, there are three main variables in this study. Using the mediation model, the conceptual model of this study is presented in Figure 1.

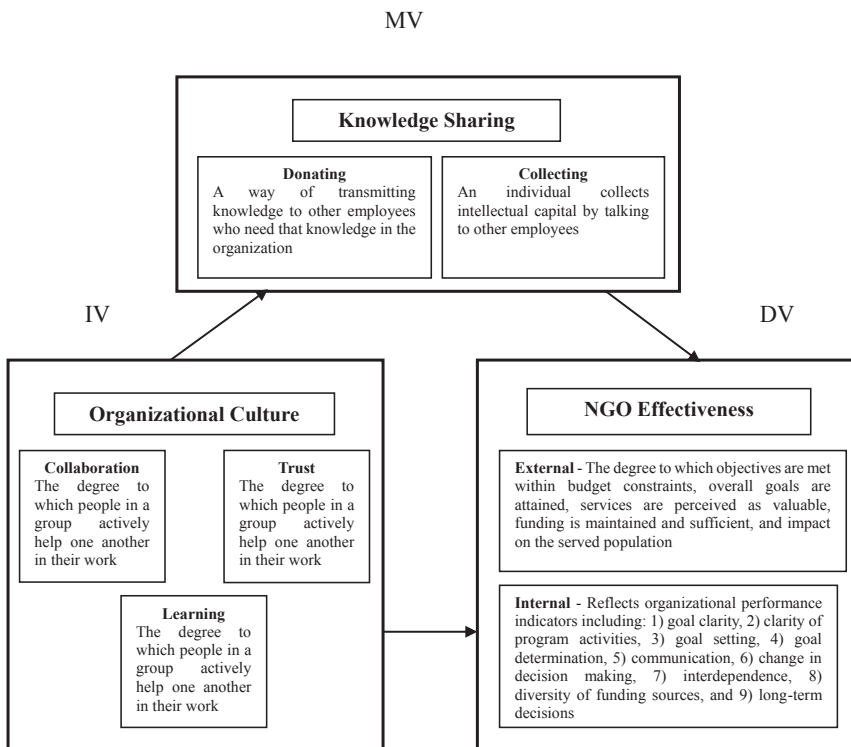


Figure 1: Conceptual research model

2.0 METHODOLOGY

2.1 Participants

The target population of this study is employees of registered NGOs. In our study, we only focus on the employees that represent registered welfare and employment NGOs located in the Klang Valley area. This

area is selected due to the large number and active operation of NGO (Registrar of Society, 2012). In approaching the participants, a self-administered questionnaire and simple random sampling method were used. We distributed 190 questionnaires to the employees of 19 NGOs and the final number of valid response is 144(75.8 % of response rate). The research participants included 55 (38.2%) males and 89 females (61.8%); 84 (58.3%) were full-time staff and 60 (41.7%) were part-time staff.

2.2 Instruments

To measure the variables of the study, we adopted and adapted previous scale and literature (see Table 1). The Cronbach’s reliability for the scales ranges from .62 to .70, indicating that they yield satisfactory scores (Sekaran, 2000).

Table 1: Constructs of the study

Construct	Dimension	Item	Scale	Source
Organizational Culture	Collaboration	5	1=Strongly Disagree to 5=Strongly Agree	Lee and Choi (2003)
	Trust	6	1=Strongly Disagree to 5=Strongly Agree	Lee and Choi (2003)
	Learning	5	1=Strongly Disagree to 5=Strongly Agree	Lee and Choi (2003)
Knowledge Sharing	Knowledge Donating	6	1=Strongly Disagree to 5=Strongly Agree	van den Hooff & de Ridder (2004)
	Knowledge Collecting	4	1=Strongly Disagree to 5=Strongly Agree	van den Hooff & de Ridder (2004)
NGO Effectiveness	External Effectiveness	7	1=Never to 5=Always	Espirito (2001) (as cited in Mussalam, 2011)
	Internal Effectiveness	13	1=Poor to 4=Excellent	Espirito (2001) (as cited in Mussalam, 2011)

2.3 Data Analysis

Prior to testing the proposed model, the validity and normality need to be fulfilled first. Then, a regression analysis was used to assess the hypothesized model, which involves a set of causal hypotheses. A mediation hypothesis can be represented by a diagram of a causal model. As shown in Figure 3, basic direct effect of the effect of X (independent variable) on Y (dependent variable) is known as path *c'*. Then, the effect of X on M (mediating variable) is known as path *a*. The final direct path is path *b*, which refers to the direct effect of M on Y. Following to Baron and Kenny’ (1986) requirements, once these three requirements were fulfilled (significant p-value); the researcher needs to examine the model as together. Full mediation is where X no longer affects Y after M has been controlled and so path *c'* is insignificant ($p>.05$). On the other hand, partial mediation is the case in which

the path from X to Y is reduced but still significant ($p < .05$) when the mediator is introduced. The strength of the indirect or mediated effect is estimated by multiplying the ab path coefficients. The total path relationships between X, M, and Y is known as path $c = (a \times b) + c'$ (Baron & Kenny, 1986).

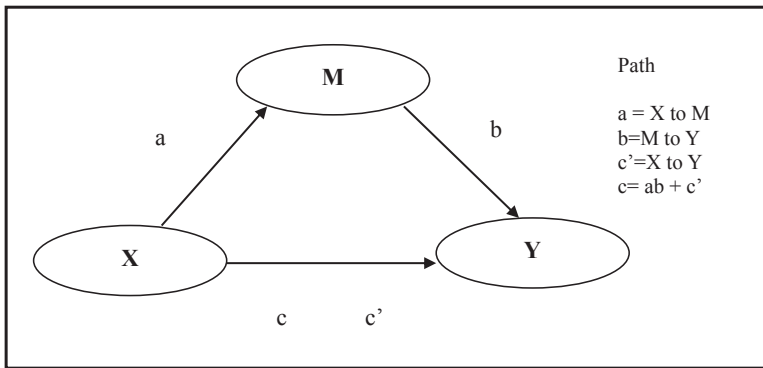


Figure 2: Mediation model

Relating to our study, as shown in Figure 4, the first requirement to be fulfilled is that organizational culture should significantly relate to NGO effectiveness (Hypothesis 1). Secondly, organizational culture must have significance on knowledge sharing (Hypothesis 2). Thirdly, knowledge sharing must have significance on NGO effectiveness (Hypothesis 3). Finally, when knowledge sharing is added to the model, the standardized estimates of the path of organizational culture to NGO effectiveness become insignificant (full mediation) or may weaken before adding knowledge sharing (partial mediation) (Hypothesis 4). After the model has been analyzed, we turn to the final phase of analysis using Sobel test in order to test the significance of the mediation effect (Sobel, 1982).

Table 2: Descriptive statistics, normality results, & correlations among variable

Variable	M	SD	Skewness	Kurtosis	1	2	3
1) OC	3.67	1.23	-1.16	0.19	1		
2) KS	3.72	1.23	-1.21	0.04	.61**	1	
3) EE	3.43	1.04	-1.58	0.20	.50**	.61**	1

Note. $N=144$; OC=Organizational Culture; KS=Knowledge Sharing; EE=NGO Effectiveness, **Correlations is significant at the 0.01 level (two-tailed).

3.2 Assessment of Hypothesized Model

Based on Table 3, before we include mediator within the model, the results of regression analysis shown that the direct effect of organizational culture ($\beta=.49$, $p<.001$) and knowledge sharing ($\beta=0.52$, $p<.001$) was significantly positive to NGO effectiveness. Next, organizational culture ($\beta=.61$, $p<.001$) significantly influences knowledge sharing behavior. Therefore, H1, H2, and H3 hypotheses are supported. When we include knowledge sharing in the model, the fourth and the fifth regression showed that the direct effect of organizational culture to NGO effectiveness has reduced but is still significant ($\beta=.17$, $p<.05$). Thus, H4 is accepted. Based on Baron and Kenny's (1986) assumptions, knowledge sharing has proven to be a partial mediator between organizational culture and NGO effectiveness. In other words, the findings appear to indicate that without knowledge sharing, organizational culture still can play its own effect towards NGO effectiveness. However, this effect is small ($\beta=.17$, $p<.05$). By combining knowledge sharing as a mediating variable, the effect of organizational culture towards NGO effectiveness will be higher and more significant ($\beta=.49$, $p<.001$). In explaining this mediation effect, the unit-free index of strength of the mediated effect (the effect of organizational culture on NGO effectiveness, through the mediating, knowledge sharing) is given by the product of the standardized estimates of the path coefficients, ab . For the standardized coefficients, this product = $(.61 \times .52) = .32$. It appears that partial mediation through knowledge sharing explains a large part of the organizational culture on NGO effectiveness in this hypothetical example.

Table 3: Hypothesized model results

Regression Path	Unstandardized		Standardized	R ²
	Coefficients		Beta	
	Beta	Std. Error		
OC → EE (c') (Before mediator was included)	.49***	.06	.50	.25
OC → KS (a)	.61***	.07	.61	.37
KS → EE (b)	.52***	.06	.61	.38
OC → EE (c') (After mediator was included)	.17*	.07	.50	.40
OC + KS → EE (c) (H4)	.49***	.07	.50	.40

Note. N=144; OC=Organizational Culture; KS=Knowledge Sharing; EE=NGO Effectiveness, *** $p<.001$, * $p<.05$.

Once the analysis was completed, the Sobel test was used to test whether the mediation effect was statistically significant. The test statistics for the Sobel test is 6.15, with an associated p-value of .00. The fact that the observed p-value falls below the established alpha level of .05 indicates that the association between the organizational culture and NGO effectiveness is reduced significantly by the inclusion of the mediator (i.e., knowledge sharing) in the model. To conclude our findings, there is evidence of mediation. The final hypothesized model is shown in Figure 5.

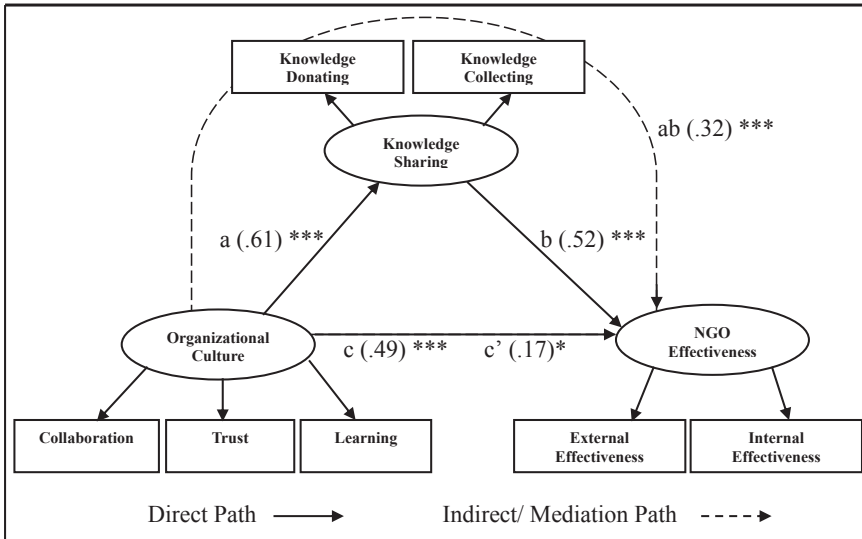


Figure 4: Final model (partial mediation)

4.0 DISCUSSION

The findings of this study provide new insights to the present literature since there is inadequate research regarding this topic especially in the context of voluntary sector. The partial mediation of knowledge sharing on organizational culture and NGO effectiveness unfolds several relevant insights. Through examination of direct effect path, it first confirms the importance of both organizational culture and knowledge sharing that support NGO effectiveness. These results are supported by previous studies such as Wei *et al.* (2014), Hogan and Coote, (2014), Kim and Hancer (2010), and Mura *et al.* (2013). Secondly, also as supported by previous studies (e.g., Wiewiora *et al.*, 2014; Suppiah and Sandhu, 2011; Al-Alawi *et al.*, 2007; Alrawi *et al.*, 2013), organizational culture has been proven for supporting knowledge sharing behavior as it encompasses elements of collaboration, trust, and learning, which affect knowledge sharing. Finally, the mediation

provided by knowledge sharing provides a clear interpretation of how organizational culture relates to NGO effectiveness through a causal path model. This means that through knowledge sharing behavior, NGO can enhance the impact of organizational culture towards NGO effectiveness.

Based on the research findings, the following suggestion could be considered by NGOs wishing to implement initiatives to promote knowledge sharing. In order to promote active knowledge sharing behavior, NGO needs to be alert with several organizational factors known as knowledge governance. For example, Magnini (2008) provides a comprehensive framework that can be used to foster knowledge sharing. These include learning orientation, emotional intelligence, agreeableness, job satisfaction, trust, cost, innovativeness, and others. As strongly advised by previous studies, we also suggest NGOs to create an environment that supports knowledge sharing. Furthermore, there are certain HRM practices that can be effective in supporting knowledge sharing behavior like employees' collaborative practices, reward systems, employee recognition, and others (Cabrera and Cabrera, 2005). For example, according to a study conducted by Gammelgaard (2007) on 1,535 respondents from 9 different organizations localized in 4 different countries, employees prefer intrinsic motivation or reward, such as acknowledgements and personal development, over monetary incentives, which can encourage them to share knowledge.

From the technological viewpoint, several studies argued that new emerging technologies may provide new opportunities to facilitate knowledge sharing (Steininger *et al.*, 2010). For example, United Nation Development Programme (UNDP) has developed a subregional resource facilities system (SURFs) in order to support knowledge sharing among their staff. Through this system, staff can send questions via phone, fax, or email to the regionally located SURFs, who then submit the questions to other UNDP agencies around the world (Kasper, 2007). Thus, the process of sharing knowledge occurs across the organizational boundaries. In addition to above recommendations, NGO also needs to provide necessary training for their staff because knowledge sharing behavior requires sufficient interpersonal skill (Hanipah *et al.*, 2010). For example, Aziz's (2010) study has revealed that communication skills impact knowledge transfer of engineers in SMEs. These skills include listening skills, seeking and giving feedback abilities, understanding others abilities, influencing and relating abilities, as well as oral and written skills. In addition to formal training approach, NGOs may also involve learning by utilizing mentoring approach or through job rotation process.

5.0 CONCLUSION

From the lens of resource-based view (RBV), this study aims to improve our understanding on why organization should utilize their internal resources as it could contribute to the effectiveness of an organization. Investigating and proving the mediating role of the knowledge sharing inspires NGOs to inculcate their employees' knowledge sharing behavior as it lend its intervening function towards the relationship between organizational culture and NGO effectiveness. As previously discussed, this study also offers new academic contribution for nonprofit literature since we investigate the variables in the context of voluntary sector. Although this study presents substantial answers to some unresolved issues in literature, the results should be interpreted in light of its limitations.

First, the current study only focuses on employees of NGOs located in a single area (Klang Valley) and we also focus only on registered welfare and employment NGOs. Perhaps further research could be done to expand the study throughout Malaysia or other countries and also include various categories of NGOs. Secondly, using a cross-sectional study also limits our knowledge on the causality effect and may not provide definite information about cause-and-effect relationships. Thus, we suggest future research to use a longitudinal study. This will enable them to detect changes in the characteristics of the target population. Finally, future studies may also improve the proposed model by adding further variables that could more comprehensively explain the mediating mechanisms through which organizational culture is translated into NGO effectiveness. By doing this, the power of the model could be increased.

REFERENCES

- Al-Alawi, A.I., Al-Marzooqi, N.Y. & Mohammed, Y.F. (2007). Organizational culture and knowledge sharing: Critical success factors. *Journal of Knowledge Management*, 11(2), 22-42.
- Alrawi, K., Hamdan, Y., Al-Taie, W. & Ibrahim, M. (2013). Organizational culture and the creation of a dynamic environment for knowledge sharing. *International Journal of Management and Innovation*, 5(1), 1-11.
- Anderson, R.E., Carter, I. & Lowe, G.R. (1999). *Human behaviour in the social environment*. New York, NY: Aldine de Gruyter.
- Aziz, Y. (2010). Communication skills as an enabler to knowledge transfer in SMEs. *Journal of Human Capital Development*, 3(2), 1-13.

- Barney, J.B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17, 99-120.
- Baron, R.M. & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Buteau, E., Brock, M. & Chaffin, A. (2014). Nonprofit challenges what foundations can do online. <http://www.effectivephilanthropy.org/wp-content/uploads/2014/07/NonprofitChallenges.pdf>. Retrieved on 11th March 2015.
- Cabrera, E.F. & Cabrera, A. (2005). Fostering knowledge sharing through people management practices. *International Journal of Human Resource Management* 16, 720-735.
- Chang, C.L-H. & Lin, T-C. (2015). The role of organizational culture in the knowledge management process. *Journal of Knowledge Management*, 19(3), 433-455.
- De Long, D.W. & Fahey, L. (2000). Diagnosing cultural barriers to knowledge management. *Academy of Management Executive*, 14(4), 113-127.
- Denison, D.R. & Mishra, A.K. (1995). Toward a theory of organizational culture and effectiveness. *Organization Science*, 6(2), 204-223.
- Dutta, D.K. (2015). Hypercompetitive environments, coepetition strategy, and the role of complementary assets in building competitive advantage: Insights from the resource-based view. *Strategic Management Review* 9(1), 1-11.
- Gammelgaard, J. (2007). Why not use incentives to encourage knowledge sharing? *Journal of Knowledge Management Practice*, 8(1).
- Hair, J.F., Black, W.C., Babin, B.J. & Anderson, R.E. (2010). *Multivariate data analysis*. Upper Saddle River, NJ: Prentice Hall.
- Hall, H. & Goody, M. (2007). KM culture and compromise – Interventions to promote knowledge sharing supported by technology in corporate environments. *Journal of Information Science*, 33(2), 181-188.
- Hanipah, H., Sharimllah, R., Asiah, M.P. & Mohd, T.D. (2010). Impact training on knowledge dissemination on teaching and learning in Malaysian higher education. *Journal of Human Capital Development*, 3(2), 77-90.
- Herman, R. & Renz, D. (2008). Advancing nonprofit organizational effectiveness research and theory. *Nonprofit Management & Leadership*, 18(4), 399-415.
- Hofstede, G., Neuijen, B., Ohayv, D. & Sanders, G. (1990). Measuring organizational cultures: A qualitative and quantitative study across twenty cases. *Administrative Science Quarterly*, 35, 286-316.

- Hogan, S.J. & Coote, L.V. (2014). Organizational culture, innovation, and performance: A test of Schein's model. *Journal of Business Research*, 67(8), 1609-1621.
- Huang, C-H. (2013). Shared leadership and team learning: Roles of knowledge sharing and team characteristics. *Journal of International Management Studies*, 8(1), 124-133.
- Ipe, M. (2003). Knowledge sharing in organizations: A conceptual framework. *Human Resource Development Review*, 2(4), 337-359.
- Irving, B.W., John, A.S. & Wayne, F.V. (2003). Handbook of psychology, research methods in psychology. New York, NY: John Wiley and Sons.
- Jain, K.K., Sandhu, M.S. & Goh, S.K. (2015). Organizational climate, trust and knowledge sharing: Insights from Malaysia. *Journal of Asia usiness Studies*, 9(1), 54-77.
- Kasper, G. (2007). *Knowing is not enough: A sampling of KM approaches in he non-profit sector*. Monitor Company Group, L.P. Confidential.
- Kim, Y.J. & Hancer, M. (2010). The effect of knowledge management resource inputs on organizational effectiveness in the restaurant industry. *Journal of Hospitality and Tourism Technology*, 1(2), 174-189.
- Lee, H. & Choi, B. (2003). Knowledge management enablers, processes, and organizational performance: An integrative view and empirical examination. *Journal of Management Information System*, 20, 179-228.
- Magnini, V.P. (2008). Practicing effective knowledge sharing in international hotel joint ventures. *International Journal of Hospitality Management*, 27(2), 249-258.
- Miller, D., Xu, X. & Mehrotra, V. (2015). When is human capital a valuable resource? The Performance effects of Ivy League selection among celebrated CEOs. *Strategic Management Journal*, 36(6), 930-944.
- Mura, M., Lettieri, E., Radaelli, G. & Spiller, N. (2013). Promoting professionals' innovative behaviour through knowledge sharing: The moderating role of social capital. *Journal of Knowledge Management*, 17(4), 527-544.
- Moon, H. & Lee, C. (2014). The mediating effect of knowledge-sharing processes on organizational cultural factors and knowledge management effectiveness. *Performance Improvement Quarterly*, 6(4).
- Mussalam, N. (2011). Examining the perceived internal and external effectiveness of NGOs in the Palestinian territories: The role of complexity, resilience, and job adaptability Online. <http://academiccommons.columbia.edu/item/ac:130090>. Retrieved on 11th March 2015.

- Norliah, K., Safiah, S., Sufean, H. & Mahadi, A.H. (2011). Learning organization practices as human resource development for transformational change at UTeM. *Journal of Human Capital Development*, 4(2), 117-128.
- Radaelli, G., Lettieri, E., Mura, M. & Spiller, N. (2014). Knowledge sharing and innovative work behaviour in healthcare: A micro-level investigation of direct and indirect effects. *Creativity and Innovation Management*, 23(4), 400-414.
- Ragsdell, G., Espinet, E.O. & Norris, M. (2014). Knowledge management in the voluntary sector: A focus on sharing project know-how and expertise. *Knowledge Management Research & Practice*, 12(4), 351-361.
- Registrar of Society (ROS). Annual report 2011. Federal State of Putrajaya: Registrar Society of Malaysia.
- Reich, B. H., Gemino, A. & Sauer, C. (2008). Modelling the knowledge perspective of IT projects. In *Proceedings of PMI Research Conference*. Warsaw, Poland.
- Sekaran, U. (2003). *Research methods for business* (4th ed.). Hoboken, NJ: John Wiley & Sons.
- Shao, Z., Wang, T. & Feng, Y. (2015). Impact of organizational culture and computer self-efficacy on knowledge sharing. *Industrial Management & Data Systems*, 115(4), 590-611.
- Sobel, M.E. (1982). Asymptotic intervals for indirect effects in structural equations models. In: S. Leinhardt (Ed.). (1982). *Sociology methodology*. San Francisco, CA: Jossey-Bass.
- Suppiah, V.N. & Sandhu, M.S. (2011). Organizational culture's influence on tacit knowledge sharing behaviour. *Journal of Knowledge Management*, 15, 462-477.
- Tangaraja, G., Mohd Rasdi, R., Ismail, M. & Abu Samah, B. (2015). Fostering knowledge sharing behaviour among public sector managers: A proposed model for the Malaysian public service. *Journal of Knowledge Management*, 19(1), 140-121.
- Tong, C., Wah Tak, W.I. & Wong, A. (2014). The impact of knowledge sharing on the relationship between organizational culture and job satisfaction: The perception of information communication and technology (ICT) practitioners in Hong Kong. *International Journal of Human Resource Studies*, 5(1), 19-47.
- Van den Hooff, B. & de Ridder, J.A. (2004). Knowledge sharing in context: The influence of organizational commitment, communication climate and CMC use on knowledge sharing. *Journal of Knowledge Management*, 8(6), 117-130.
- Waheed, H., Qureshi, T.M., Khan, M.A. & Hijazi, S.T. (2013). Mediating role of knowledge sharing: organizational performance for competitive

advantage and innovation. *African Journal of Business Management*, 7(7), 536-547.

- Wei, Y., Samiee, W. & Lee, R.P. (2013). The influence of organic organizational cultures, market responsiveness, and product strategy on firm performance in an emerging market. *Journal of the Academy of Marketing Science*, 42(1), 49-70.
- Wiewiora, A., Murphy, G., Trigunarsyah, B. & Brown, K. (2014). Interactions between organizational culture, trustworthiness, and mechanisms for inter-project knowledge sharing. *Project Management Journal*, 45(2), 48-65.
- Wu, C-S., Wang, P-W. & Tsai, L-F. (2010). The effect of organizational culture on team interaction and team effectiveness: Team leadership as a medium. *Journal of International Management Studies*, 5(2), 190-198.
- Yang, J. (2007). The impact of knowledge sharing on organizational learning and effectiveness. *Journal of Knowledge Management*, 11(2), 83-90.
- Yazici, H.J. (2009). The role of project management maturity and organizational culture in perceived performance. *Project Management Journal*, 40(3), 14-33.
- Zheng, W., Yang, B. & McLean, G.N. (2009). Linking organizational culture, structure, strategy, and organizational effectiveness: Mediating role of knowledge management. *Journal of Business Research*, 63(7), 763-771.