Investigating The Adoption of Knowledge Management in a Non-Govermental Organization in Malaysia

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ABSTRACT
Non-governmental organizations use knowledge extensively in humanitarian efforts, engagements with organizations concerning the welfare of the people and other activities. The knowledge in non-governmental organizations are mostly tacit. Nevertheless, little is known about knowledge management practices in non-governmental organizations. The aim of this study is to investigate the adoption of knowledge management in a non-governmental organization. This study adopts a case study research design. Data was collected through a survey sent to a non-governmental organization. The questionnaire was based on the four pillars of knowledge management namely management and organization, people and culture, content and processes and infrastructure. A total of 31 respondents from one NGO participated in the survey. The data was analyzed using descriptive analyses. The findings indicate that knowledge is widely acknowledged as important in non-governmental organizations. To a certain extent, knowledge management principles have been practiced in the organization. However, non-governmental organizations have yet to establish an organization-wide knowledge management strategy. The study provides an understanding of how knowledge management is perceived by the non-governmental organizations and provide valuable insights to the practice of knowledge management in non-governmental organizations.

Keywords: Knowledge management adoption, Non government organization, knowledge management pillars.

1 INTRODUCTION
Knowledge has been recognized as a vital asset for organizations in adapting to the current global economy. Organizations realize that intellectual assets need to be managed. Thus, organizations begin to initiate knowledge management (KM) programs so that knowledge can be discovered, captured and shared. Currently, there are many studies that investigate KM adoption in organizations. However, these organizations are for-profit organizations. KM in non-profit organizations (NGO) is rarely investigated.

In Malaysia, NGOs come from various backgrounds serving various functions. The number of NGOs in Malaysia is difficult to determined and observed. Hati.my, a non-profit directory for NGOs in Malaysia listed a total of 2909 NGOs registered in their directory (Hati.my, 2018). Malaysia Open Data Portal listed a total of 57570 registered organizations that are active as of March 2016. Definitively, this total number of NGOs has increased since then. Statistics from the Registry of Societies Malaysia indicated nearly 1000 societies registered each month every year (ros.gov.my, 2013). The Malaysian government acknowledge the role of the NGOs in tackling social issues. The 2018 Annual Budget that was tabled on the 27th of October 2017 by the Prime Minister of Malaysia has seen an increase of RM30 million from RM20 million in 2017 to RM50 million in 2018 for NGOs to strategist and implement their activities in addressing these social problems.

NGOs play a crucial role in today's democratic society. NGOs serve various functions depending on the group of people that they represent. Some NGOs serve the interest of a political party while others serve a fraction of people in today’s society. NGOs are also known to provide humanitarian efforts to the people whose area is affected by natural disasters. Hourigan (2014) stated that KM is important to NGOs. Knowledge is important to NGOs in order to respond to any issues that affects the group that they represent or to participate in any humanitarian efforts. NGOs are not only viewed as an organization that provide services, they are also viewed as information broker (Edwards, 1994).

Non-governmental organizations (NGOs), despite does not operate for profit, need to manage their knowledge similarly to for-profit organizations (Hurley & Green, 2005). NGOs need to be well informed and knowledgeable to function. However, research into the adoption of KM in NGOs is underexplored (Hume & Hume, 2014). Little is known about KM adoption in NGOs, thus the aim of this study is to investigate the knowledge management initiatives in NGO. The KM initiatives in the NGO will be studied from the pillars of knowledge management.
II LITERATURE REVIEW
This section presents the literature of the study. The existing studies on knowledge management in NGO and the pillars that support KM are discussed.

A. Knowledge Management
KM is crucial for organization’s sustainability and also competitive advantage. KM is defined as the exploitation and development of the knowledge assets of an organization with a view to furthering the organization’s objectives. (Davenport & Prusak, 1998). KM involves people, process, activities and technology and the broader environment that enable the identification, creation, communication or sharing, and use of organizational and individual knowledge. It is about the process that governs the creation, dissemination and utilization of knowledge to attain organizational objective. It requires a mix of business awareness, creative attitudes and practices, systems, tools, policies, procedures designed to release the power of information and ideas (Lehaney, 2004).

In the context of digital society, KM is a useful tool for NGO to achieve their civic mission and to share their knowledge and practices with the society (Vasconcelos et al., 2005). KM strategies impact positively the internal environment of an NGO. Corfield, Paton, and Little (2013) believe that organizations react positively to the strategy. Knowledge management strategies create an environment proper for learning, for the creation, the share and the reuse of knowledge, for collaboration and for innovation (Bratianu, 2014; Bratianu & Bolisani, 2015; Lefter et al., 2011).

B. KM Pillars
KM pillars are the foundation of any KM initiative. Without these pillars to support, implementing KM would be a challenge. KM pillars have been studied by researchers. Table 1 shows a summary of the KM pillars.

Table 1: Summary of KM Pillars

<table>
<thead>
<tr>
<th>Authors</th>
<th>KM pillars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bixler and Bixler (2002)</td>
<td>leadership, organization, technology, learning</td>
</tr>
<tr>
<td>Omar and Rowland (2004)</td>
<td>people, culture, technology, structure</td>
</tr>
<tr>
<td>Rhodes et al. (2008)</td>
<td>structure, culture, processes and strategy, and information technology</td>
</tr>
<tr>
<td>Qatawneh, Yousef and Shirvani (2013)</td>
<td>strategy, people, culture, technology and structure</td>
</tr>
<tr>
<td>Chan (2017)</td>
<td>people, technology, process</td>
</tr>
</tbody>
</table>

Table 1 shows the summary of pillars that support KM. From existing studies, it can be seen that people and culture, management and organization, content and processes and technology as the four main pillars of KM. These four pillars are the focus of this study.

The management and organization pillar refers to the support by the management towards knowledge management. Management could provide necessary infrastructure and reward mechanism to encourage KM practices in the organization. It is also crucial for the organization to have a champion or leader at the managerial level that can provide a strong and dedicated leadership needed for cultural change.

The content and process pillar refers to the set of activities needed to discover, capture, share and apply knowledge. All knowledge has content. This content can be represented in digital form or physical documents and tacit form such as experienced workers. Content needs to be captured, codify, stored and shared. The use of standards and format to capture and document knowledge is important to ensure consistency. The content must be relevant, trusted, updated and accessible to other people in the organization. Some organizations embed KM processes in established work process so that the KM processes does not seem a burden to people.

People and culture pillar refers to the knowledge and experienced people in the organization who has the knowledge to be shared. The culture of knowledge sharing must be instilled and it is the role of the management to support this (Davis, 2002). Knowledge resides in people and culture dictates the attitude and the perception of people to manage knowledge. For example, people do not share knowledge because they believe having knowledge is power thus, sharing knowledge means giving away power. Organizations play a role in instilling in KM culture. Organizations can instill KM culture by providing a platform that enables people network to be established. This platform allows employees to know each other and collaborate. Reward is also an excellent motivator in promoting knowledge sharing culture.

The technology pillar refers to the infrastructure and tools to support KM within an organization. Technology facilitates the capturing, storing and sharing of knowledge. The use of KM tools such as forums, Web 2.0, lesson learned systems and others is beneficial but it needs to be intuitive and easy to use. Overall, technology adds values to the KM processes. It is important to note that KM processes can still be executed even without technology such as forums, sharing sessions and expert interviews.

C. Knowledge Management in Non-Governmental Organization
For NGO, the knowledge that resides in the minds of the staff and volunteers is the organization’s most valuable resource (Matschke, Moskaliuk, & Cress,
2012). The knowledge within NGOs are mostly tacit (Hume & Hume, 2015) thus making it difficult to exchange (Matschke et al., 2012) and formalized (Becerra-Hernandez, Fernandez & Sabherwal, 2003). Tacit knowledge is knowledge that resides in people’s memory as insights, experience or ideas (Santoro & Brézillon, 2005). Gao, Li, and Clarke (2008) regarded tacit knowledge as an act of carrying out something and unstructured, very personal and difficult to be shared. Example of tacit knowledge is the experience in handling major projects or the insights and ideas on how to improve a business process.

The technology used to share knowledge in NGOs are Web 2.0 tools. Examples of these tools are blogs, video sharing sites and social networking sites. Matschke et al. (2012) proposed the use of Web 2.0 to exchange knowledge in NGOs because Web 2.0 technologies and the NGOs have similar characteristics such as voluntariness and democratic. The internet and social media are also systematically used by NGOs to develop and manage partnership, involving also knowledge sharing (Rathi, Given, & Forcier, 2014). There has been works on Web 2.0 tools to support KM activities for NGOs. Kalid, Kwang Hooi, Yew and Shan-Nice (2016) developed a Web 2.0 platform called KnowledgeFlood that enables volunteers from NGOs to share experience in flood disaster relief efforts. Yates and Paquette (2011) conducted a study to understand the use of social media technologies such as wikis and collaborative workspaces as the main knowledge sharing mechanisms in disaster response. The study provides insights on how social media technologies were used during the 2010 Haitian earthquake. From the study, social media enables the sharing of knowledge from different agencies and decreasing any duplicate efforts by the agencies. Knowledge visibility is enhanced through social media thus allows knowledge to be reused. Apart from social media, an emerging trend for the NGOs is to use cloud computing solutions to support their KM activities (Rathi & Given, 2017).

Nonetheless, there are also challenges in adopting KM in NGO. Soakell - Ho and Myers (2011) stated five challenges of for NGO in health and disability sector in New Zealand. Some of the challenges are external relationships, organizational structure, organizational culture, funding and role of technology. Generally, the NGOs in New Zealand regarded knowledge as crucial but they have difficulties in integrating their knowledge assets, which are the volunteers, in their NGO. The issue of the right volunteer for the right job with the right skills and knowledge is an issue. NGOs in New Zealand has also been operating in silos thus making it a barrier in KM. Technology plays an important role in promoting KM but lack of funding makes it difficult for them to operate with technology. Zbuecha, Petropoulos, and Partyka (2018) investigate the factors that improve KM for an NGO that belongs under a parent NGO. The authors discovered that NGOs do not have a KM strategy. The knowledge in NGOs are mostly tacit, therefore, in an inter and intra organizational relationship, an effective strategy is needed to ensure NGOs can have access to knowledge and establish linkages with other NGOs. The authors stated that an integrated KM strategy among NGOs and facilitated by the the parent NGO is needed. The study by Zbuecha, Petropoulos and Partyka (2018) indicates the role of the champion, which in this case, the parent NGO has to play a role in establishing a KM strategy that could integrate smoothly with the KM strategy of its member NGOs.

III METHODOLOGY
This study adopts a case study design to explore the current initiatives of an NGO. The case organization is an NGO that is well known in providing first aid and humanitarian services in Malaysia. It has 60000 volunteers nationwide and has provided its volunteering services particularly in providing first aid and ambulance services in events, festivals and also in disaster affected areas. The case NGO also provides community services such as hemodialysis centers and nursing

The questionnaire was adapted from previous knowledge management surveys. The questionnaire is divided into five sections which reflect the four pillars used in this study. Those sections are Section A (Employee Profile and Knowledge), Section B (Pillar 1: People and Culture Questions), Section C (Pillar 2: Management and Organization Questions), Section D (Pillar 3: Content Process Questions) and Section E (Infrastructure Questions). A five-point Likert scale was used in this study.

The secretary general of the NGO was contacted to get his assistance in distributing the questionnaire. A total of 43 questionnaires were distributed throughout the organization. Only 31 respondents returned the questionnaire which makes the response rate of 72%. The data was analyzed using basic descriptive statistics.

IV RESULTS
This section presents the results of the study. This section begins with the respondent’s profile. The results presented are the respondents view on knowledge in the NGO and the respondents view on the current adoption of KM practices according to the four pillars of KM.

A. Respondent Profile
The respondents are staff of the national and state headquarters of an NGO in Malaysia. This NGO provides first aid and community services to the public. The respondents are attached to various departments namely Administrative, Human
Resource, Membership, Service, Training and National Headquarters. Majority of the respondents (N=31, 35%) are from the NGO national headquarters. The respondents from the national headquarters hold managerial levels whereas the rest are volunteers, coordinators, executives and support staffs.

B. Knowledge as Key Resource in Case Organization

Table 2 shows the mean and standard deviation for the items related to the importance of knowledge in NGO.

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance of knowledge in NGO</td>
<td>3.97</td>
<td>1.663</td>
</tr>
<tr>
<td>Knowledge is NGO’s key resource</td>
<td>4.03</td>
<td>0.836</td>
</tr>
</tbody>
</table>

It can be seen from Table 2 that staff and volunteers of NGO agree that knowledge is indeed important and regarded as one of the key resources in the organization. Furthermore, all of the respondents have heard of knowledge management and they regarded the staff and volunteers as intellectual assets that need to be managed and preserved.

C. Pillar 1: Management and Organization

Management and organization pillar looks into the level of support of the management towards KM. Table 3 shows the results of respondent’s perception on the level of support given by the management on KM. It can be seen that the NGO management in some way acknowledges KM but has not making KM as an organization wide practice.

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management supports KM</td>
<td>3.39</td>
<td>0.9193</td>
</tr>
<tr>
<td>Management recognize KM</td>
<td>3.48</td>
<td>0.8112</td>
</tr>
<tr>
<td>Management has plans to adopt KM</td>
<td>3.35</td>
<td>0.9146</td>
</tr>
<tr>
<td>Management encourage knowledge sharing</td>
<td>4.03</td>
<td>0.7951</td>
</tr>
<tr>
<td>KM practices e.g staff rotation is encouraged</td>
<td>3.68</td>
<td>0.7018</td>
</tr>
<tr>
<td>Management appreciates employees that learn from experience</td>
<td>3.48</td>
<td>1.0286</td>
</tr>
</tbody>
</table>

50% of the respondent stated that KM has not been adopted organization wide by the NGO and majority (45%, N=31) feels that they do not see any initiatives by the organization to implement KM. Furthermore, 69% of the respondent feels that the management has not been recognizing KM as part of their business strategy.

D. Pillar 2: People and Culture

The people in the organization are the source of tacit knowledge. Tacit knowledge such as experiences and insights are difficult to capture. Thus, a strong knowledge sharing culture is essential for the transferring of tacit knowledge. Table 4 presents the mean and standardization of the items within the people and culture pillar.

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>KM culture exists in the organization</td>
<td>3.90</td>
<td>0.9436</td>
</tr>
<tr>
<td>Staff believes in learning from failures</td>
<td>4.52</td>
<td>0.6768</td>
</tr>
<tr>
<td>Experience staff are willing to share knowledge</td>
<td>4.26</td>
<td>0.7288</td>
</tr>
<tr>
<td>Knowledge sharing is rewarded</td>
<td>3.61</td>
<td>1.0856</td>
</tr>
<tr>
<td>Informal knowledge exchanged is part if the organizational culture</td>
<td>3.90</td>
<td>0.9436</td>
</tr>
</tbody>
</table>

From Table 4, more than 85% of the respondents agree that the knowledge sharing culture does exist in the NGO. For a NGO that provides first aid and humanitarian services, majority (90%, N=31) of the respondents believe that people learn from failures. The use of informal platforms is important for the respondents with majority (58%, N=31) agree that the organizational culture supports the informal knowledge exchanges in the NGO.

E. Pillar 3: Content and Process

Organizations should have a structured process in managing content. Issues such as content creation, content validation, and content repository are some of the areas of concern in this pillar. Table 5 presents the mean and standardization of the items for the content and process pillar.

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge is readily available in the organization</td>
<td>4.19</td>
<td>0.5428</td>
</tr>
<tr>
<td>The organization has a process to create, capture and acquire knowledge</td>
<td>3.42</td>
<td>1.0255</td>
</tr>
<tr>
<td>Knowledge is easily obtained through organization intranets</td>
<td>4.06</td>
<td>0.6800</td>
</tr>
</tbody>
</table>

Knowledge in the NGO are in the form of reports, manuals and policies. Some of these knowledge are in digital form thus it is readily available through the NGO’s website. However, the knowledge that are available on the NGO’s website are more formal, rather than informal, type of knowledge. Nonetheless, only half of the respondents (48.3%, N=31) are familiar of any process to create and store knowledge in the NGO.

F. Pillar 4: Infrastructure

The infrastructure pillar is about the infrastructure, whether it is information technology based or not, provided by the NGO. Examples of infrastructure are the use of computer software that facilitates knowledge sharing or a physical space for staff and
volunteers to share knowledge. Table 6 presents the mean and standardization of the items within the infrastructure pillar.

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I share knowledge through organization’s email and social media</td>
<td>3.77</td>
<td>0.8450</td>
</tr>
<tr>
<td>I use some type of e-learning to share knowledge in the organization</td>
<td>3.42</td>
<td>1.0255</td>
</tr>
<tr>
<td>Meeting room and pantries are mostly used to share knowledge.</td>
<td>4.29</td>
<td>0.9016</td>
</tr>
<tr>
<td>I use cloud-based tools such as Dropbox and Google Drive to manage knowledge</td>
<td>4.29</td>
<td>0.9016</td>
</tr>
</tbody>
</table>

Majority of the respondents agreed with the use of technology (87.1%, N=31) and non-technology (83.9%, N=31) mechanism to exchange knowledge. Technology in this context refers to cloud-based tools such as Dropbox and Google Drive. Non-technology mechanism signifies informal settings such as meeting rooms, pantry, water coolers and others. Email and social media, however, is moderately used as tool to share knowledge.

V DISCUSSION
The role of NGO in today’s society is crucial as it represent the voices of the people and also providing assistance to the government in many areas. NGO also bridges the gap between the government and business organizations. Like any other organizations, knowledge is a key resource for NGO thus, knowledge need to be effectively managed.

This study investigates the adoption of KM in an NGO. For the NGO to adopt KM, the support from the management is crucial (O’Dell & Leavitt, 2004). The management plays a role in removing barriers, and making learning a priority. In the case NGO, KM principles have been practiced but it seems that the NGO management has yet to make this practices as key practices in the organization.

Web 2.0 technologies such as social media facilitates the exchange of tacit knowledge in NGO (Kaya & Dey, 2016). From the study, the case NGO regarded tacit knowledge that resides in people as intellectual assets. Tacit knowledge for NGO is crucial because their members are mostly volunteers but then there is a lack of process and mechanism to capture tacit knowledge from the volunteers. The results are consistent because the findings indicate that people and culture is the strongest pillar in the case NGO. This is further collaborated by Omotayo (2015) who stated that people in the organization and the knowledge that they possess is crucial in the success of an organization. In the case NGO, people are willing to share knowledge with one another but it is unclear to what extent the process of knowledge sharing in the NGO.

The knowledge sharing culture need to be instilled to all organization members (Stylianou & Savva, 2016). Nor (2006) believes that the creation and sharing of tacit knowledge is influenced by organizational culture. The willingness of individuals to share and create knowledge influences the success of KM. With the right culture, the organization is able to support KM formally and benefit from it (Standing, C., & Benson, 2000; Stylianou & Savva, 2016).

With regards to content, it is readily available for the staff and volunteers of the NGO. However, the responses gathered suggested that the organization does not have a well-established documentation to define the process for capturing, creating and sharing knowledge.

VI STUDY LIMITATION
The limitation of this study is the participation of only one NGO in the study. Thus, the findings of this study cannot be generalized to all NGOs. Additional study on other NGOs is needed to verify the findings. The investigation of KM adoption in other NGOs does not only verify the findings of this study but a comparative analysis can be made between the NGOs. This provides more understanding on the perception of KM among NGO volunteers.

This study is an exploratory study that uses only quantitative approach in analyzing the data. The questionnaires were based on the perceptions of the respondents. Therefore, there is possibility of subjectivity when the respondents were completing the questionnaire. Thus, the findings of this study did not provide in-depth explanation on the KM practices in the NGO.

VII CONCLUSION
This study concluded that knowledge is a key resource for the NGO and also knowledge, particularly the people, is more valued than the NGO's explicit knowledge. This is expected because the NGO relies on people such as volunteers to provide its services. Volunteers are temporary staff thus capturing their knowledge becomes more important. Nonetheless, less effort has been initiated by the organization to manage its tacit knowledge. The future work of this study is two-fold. Firstly, this study involves only one NGO as the case organization. More NGOs should be empirically studied to see whether similar trend does happen. Secondly, this study adopts a quantitative approach in investigating KM in NGO. Thus, a qualitative study should be extended to this study to gain better understanding on the KM initiatives in NGO. For-profit organizations have gain benefits such as improved business process, increased customer
service and enhanced customer satisfaction. Although these organizations have enjoyed the benefits of knowledge management, there are still opportunities for the non-governmental organizations that consist of mostly volunteers, to get similar benefits.

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