SAFEGUARDING SARAWAK'S INTANGIBLE CULTURAL HERITAGE:

A KNOWLEDGE MANAGEMENT APPROACH

BY

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Abstract

The importance of indigenous knowledge is receiving increasing recognition. Some cultural institutions (CI) are responsible for safeguarding indigenous knowledge and they acquire, document, and record works and images of indigenous knowledge which are contained or embedded in the intangible cultural heritage (ICH) of their indigenous communities such as songs, rituals, arts, and medical wisdom. These items of ICH become 'knowledge objects' or 'representations of knowledge' when documented, which are unlikely to represent the indigenous people's knowledge holistically. Indigenous knowledge embedded in the ICH requires interpretations of the processes, rituals, experiences and practices from the indigenous communities.

This interpretivist study, using a knowledge management (KM) lens, examined the knowledge sharing processes of the indigenous people of Sarawak, Malaysia, to understand the nature of indigenous knowledge and knowledge sharing from the perspectives of the indigenous people of Sarawak, in order to assist Sarawak's cultural institutions in safeguarding their ICH.

This research used narrative inquiry as a research methodology, acquiring stories from two clusters of participants, purposively selected from three ethnic groups and from cultural institutions in Sarawak's Civil Service. This study used a knowledge management perspective in analysing the findings. The findings on the nature of indigenous people's knowledge highlight a three-tiered knowledge system. The findings on the CIs' safeguarding efforts elucidate the gap in the management of the CIs' organizational knowledge on safeguarding.

This study makes several important contributions. First, it contributes to the literature about the cultural protocol requirements of the indigenous people of Sarawak before they can share their knowledge. Secondly, this study elucidates the indigenous people's knowledge as a three-tiered system which influences the people's knowledge sharing ways. This system can be used to guide the CIs' practices of safeguarding ICH. The third contribution of this study is that it expands our understanding of the complexity of indigenous knowledge, and creates a

conceptual model to aid and guide this understanding. Fourth, this study also contributes towards a greater understanding of the importance of the CIs including the indigenous peoples in the safeguarding practices in order to avoid the decontextualization of the ICH. Thus, this study confirms the importance of the participation of the indigenous people in the CIs' practice of safeguarding ICH.

Another contribution of this study, based on its findings, is the adaptation of three elements of a KM spectrum (Binney, 2001) for the CIs' KM approach in managing their organizational knowledge on safeguarding ICH.

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Securing the final full stop for this thesis has been quite a journey.

The input into creating this thesis has not been mine alone. Just like the scaffolds that support the construction of a building so it stands strong to weather all types of calamities, here are my thanks and appreciation for all the support I received during my PhD journey.

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Chapter 1   *Introduction*

The recognition of the importance of indigenous knowledge, once considered as old knowledge, is demonstrated by the growth of interest in this subject area. This growth is evident in the recent publication of a range of literature on indigenous knowledge, for example, on its use for sustainable development (Smith, Eyzaguirre, Matig, & Johns, 2015); for helping to address environmental issues (Chuah, Manurung, & Naming, 2014) and issues related to climate change (Parry, Canziani, Palutikof, van der Linden, & Hanson, 2007); for sustaining indigenous cultures (Soini & Birkeland, 2014); and for developing modern medicines and treatments (Locher, Semple, & Simpson, 2013).

Some cultural institutions (CIs) such as libraries, archives and museums do acquire, manage and safeguard indigenous knowledge or intangible cultural heritage (ICH) as part of their collections. Indigenous knowledge is complex, and it is imperative for the CIs, given their role of safeguarding ICH, to understand the range and types of traditional knowledge, and how the indigenous people impart their knowledge. The involvement of the indigenous people or the source community with the CI in the safeguarding of their ICH provides their perspectives and voice.

Cultural institutions, as knowledge repositories, create organizational knowledge in safeguarding ICH. In Sarawak, I observed that the CIs place low importance on managing their own organizational knowledge around the safeguarding of ICH.

This study comprised two components. The first component of my study required me to understand the indigenous knowledge of Sarawak people, their intangible cultural heritage (ICH) and the requirements of the indigenous people of Sarawak in sharing or imparting their knowledge embedded in ICH. I have sought to understand how the indigenous ways of knowledge sharing affect the CIs' efforts to safeguard the ICH. The second component of my study looked into issues faced

by the CIs, which then help inform an analysis of how the CIs can use knowledge management for the CIs' organizational knowledge of safeguarding.

This chapter begins with a description of the research setting, which provides an overview of the problem, and the context that frames the study. Following this is the problem statement, accompanied by the research objectives and research questions. This chapter concludes with a discussion of justifications and significance of the study.

1.1 Research setting: Problem overview

This research looks into the interplay of two main components in the safeguarding of indigenous knowledge. These are: (1) the roles of the CIs, and (2) the nature of indigenous knowledge. The following sections elaborate the research settings further.

1.1.1 The roles of cultural institutions as agents to safeguard ICH

The cultural institutions established by the State Civil Service of Sarawak are responsible for safeguarding the indigenous knowledge of Sarawak. The six CIs included in this study are all part of the Sarawak Civil Service; however, each has different types of governance and administration.

Documentation of the indigenous people's knowledge, as part of safeguarding measures, reduces the ICH to mere knowledge objects or representations of knowledge, which might not represent knowledge holistically (Isaac, 2009; Ngulube, 2002). The CIs' practices of safeguarding indigenous knowledge and understanding the traditional or indigenous ways of preserving and safeguarding ICH ought to be incorporated into the CIs' organizational practices of managing the indigenous knowledge and the accompanying ICH (IIED, 2005; Isaac, 2009; Ngulube, 2002). Given the context, this study, using Sarawak, a state of Malaysia, as an illustrative case, I observed that the CIs place low importance on managing their own organizational knowledge around the safeguarding of ICH.

Article 11 of the UNESCO Convention *for Safeguarding of Intangible Cultural Heritage (CSICH) 2003* stated that each

> State Party shall take the necessary measures to ensure the safeguarding of the intangible cultural heritage present in its territory by identifying and defining the various elements of the intangible cultural heritage with the participation of communities, groups and relevant non-governmental organizations (NGOs). (UNESCO, 2016, p. 17)

In the paragraph above, the key phrase for the safeguarding of ICH is 'with the participation of communities, groups and relevant NGOs'. My understanding of communities here includes the indigenous communities, the knowledge bearers, and other indigenous community-affiliated organizations. This Convention identifies a pivotal role for the involvement of indigenous communities in the safeguarding of their ICH. Malaysia is a signatory to this Convention, and thus it is applicable to Sarawak.

1.1.2 The nature of indigenous knowledge

ICH resides in the traditions or the rites and rituals used by the indigenous communities. The ICH continues to exist as the indigenous communities pass it on by oral tradition through generations. These traditions are part of the ICH, residing in the people's minds, talents, abilities, practices, wisdom and experiences. They need the interpretations and involvement of the knowledge holders and the indigenous communities. This knowledge is not static, archaic or obsolete. In fact, researchers view documentation of this knowledge, and depositing it in cultural institutions, as reducing the knowledge and resulting in 'documenting it as a cultural fossil' (Mazzocchi, 2008/2009, p. 44). Incorporating the understanding of the nature of indigenous knowledge and involving the source communities in safeguarding practices is part of the CIs' organizational knowledge.

1.2 What is the problem?

Safeguarding ICH, as stated in UNESCO's *Convention for the Safeguarding of Intangible Cultural Heritage (CSICH)*, requires the involvement of the ICH's knowledge bearers and practitioners. The post-colonial movement of heritage management also advocates the involvement of the indigenous people, to help include more of their voices and perspectives in the management of their knowledge in the CIs. These influences affect the CIs in their safeguarding practices, by obtaining the involvement of the indigenous people, not only in collaborating to acquire their knowledge but also to incorporate their involvement in the CIs' management.

Indigenous knowledge embedded in ICH requires interpretations of the processes, rituals, experiences and practices by the indigenous or source communities. The decision by indigenous communities to share their knowledge with cultural institutions poses further challenges, especially with respect to certain customary protocols over some sacred aspects of the knowledge. Simply recording or documenting ICH fails to capture the whole context and meanings of ICH such as songs, rituals, arts or scientific and medical wisdom of the indigenous people. ICH is a living entity and should not be preserved or conserved in a glass case simply for observation (Lenzerini, 2011).

From my experience working in a cultural institution, I observed that the indigenous peoples of Sarawak share their knowledge embedded in their ICH only when there are appropriate cultural safeguards in place. Thus, indigenous knowledge embedded in ICH requires interpretations of the processes, rituals, experiences and practices by the indigenous or source communities. As such, understanding the traditional or indigenous ways of preserving and safeguarding the ICH ought to be incorporated into the cultural institutions' organizational practices of managing the ICH (IIED, 2005; Isaac, 2009; Ngulube, 2002).

Most cultural institutions advocate continued public access to indigenous knowledge, but some indigenous knowledge contained in the ICH is not meant

for public consumption (Mathiesen, 2012; M.Nakata, Byrne, V. Nakata, & Gardiner, 2006; Peers & Brown, 2005). This concern has implications for the CIs in managing their safeguarding processes.

1.3   Research site

This sub-section outlines the research context. Sarawak, the largest of the 14 states of Malaysia, is situated on the island of Borneo. With an area of 124,449 square kilometres, this state has its own specific challenges, which include geographical layout, multicultural diversity and the socio-cultural layers of economic development (State Planning Unit, 2015).

Sarawak had an estimated population of 2.74 million in 2016 (Dept of Statistics, 2017) comprising people from more than 27 indigenous groups, spreading over 41 districts, and 26 sub-districts (State Planning Unit, 2015). The people have unique and diverse cultures and languages.

For the part of my study involving understanding the indigenous knowledge of the people of Sarawak, I included participants from the *Iban, Orang Ulu* and *Melanau* groups. I limited my choice to three groups, based on their size and geographical locations: the Iban, the largest ethnic group in Sarawak, populating mostly the southern part of Sarawak; the Orang Ulu from the remotest part of Sarawak in the north; and the Melanau, the smallest group, located mostly in central Sarawak (State Planning Unit, 2015). I discuss the reasons for their selection in Chapter 3, and describe each of these groups in Chapter 4. This part of my study aims to elucidate the factors that allow the sharing of knowledge by the indigenous knowledge holders with the cultural institutions, which have the responsibility of safeguarding their ICH.

For the part of my study that examined the CIs' role in safeguarding ICH, participants comprised selected staff (nine of them were not from the indigenous groups selected for this study) from six cultural institutions established by the Sarawak State Civil Service to safeguard the ICH of the indigenous peoples of

Sarawak. These cultural institutions have different functions and purposes, such as material culture collection, publications and records collection, a living museum, biodiversity concerns, and encoding native laws and customs.

1.4 Safeguarding intangible cultural heritage

Literature on indigenous or traditional knowledge, traditional cultural expressions, or intangible cultural heritage (ICH) mostly entails the global recognition of the importance of indigenous knowledge. The World Intellectual Property Organization (WIPO), on its website, defines knowledge of the indigenous people as *traditional knowledge* (TK) which

> is knowledge, know-how, skills and practices that are developed, sustained and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity [and] traditional knowledge in a general sense embraces the content of knowledge itself as well as traditional cultural expressions, including distinctive signs and symbols associated with traditional knowledge. Traditional knowledge in the narrow sense refers to knowledge as such, in particular the knowledge resulting from intellectual activity in a traditional context, and includes know-how, practices, skills, and innovations. Traditional knowledge can be found in a wide variety of contexts, including: agricultural, scientific, technical, ecological and medicinal knowledge as well as biodiversity-related knowledge. (WIPO, 2010)

The term *intangible cultural heritage (ICH)* is defined in Article 2 of the United Nations Educational, Scientific and Cultural Organization (UNESCO) *Convention for Safeguarding Intangible Cultural Heritage 2003* (UNESCO, 2016, p. 5) as

> the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage, [and is] manifested *inter alia* in the following domains: (a) oral traditions and expressions, including language as a vehicle of the intangible cultural heritage; (b) performing arts; (c) social practices, rituals and festive events; (d) knowledge and practices concerning nature and the universe; (e) traditional craftsmanship.

UNESCO uses 'intangible cultural heritage' as the term to collectively group traditional knowledge, genetic resources and traditional cultural expressions.

The UNESCO Convention defines 'safeguarding' as the measures aimed at

> ensuring the viability of the intangible cultural heritage, including the identification, documentation, research, preservation, protection, promotion, enhancement, transmission, particularly through formal and non-formal education, as well as the revitalization of the various aspects of such heritage. (UNESCO, 2016, p. 6)

For the purpose of this research, I use intangible cultural heritage (ICH) to represent the indigenous knowledge of the people of Sarawak, the tangible artefacts, the intangible expressions and the knowledge imbued in them, in line with UNESCO's collective purpose in using this term. I also adopt the term 'safeguard' as this term encompasses the efforts needed to help preserve, organize, manage and sustain the ICH.

The sustainability of indigenous knowledge embedded in the ICH is dependent on the physical environment of the knowledge holders and the indigenous community, and their methods of knowledge transfer and sharing. Sharing this knowledge, especially the sacred and secret, for example, knowledge on traditional healing, is still a challenge because of the tacit nature of the knowledge.

The nature of this knowledge is continually changing to suit the daily lives, seasons, and purposes of the community. As such, there is no equivalent creation or distribution of indigenous knowledge in the community (Kumaran, Dissanayake, & Norbert, 2007). However, the introduction of structured education systems and a variety of proselytizing religions into these tribes also contributes to the fragmentation and decay of indigenous knowledge (Hendry, 2005; Kreps, 2003; McCarthy, 2007). Despite these fragmenting and decaying processes, the communities still have their own systems of managing their knowledge, as evident in the indigenous knowledge that they still use and practise today. 'These concepts and practices are worthy of preservation in their

own right as they form part of people's cultural heritage and identity' (Kreps, 2003, p. 9).

It is useful to understand the nature of the indigenous people's knowledge and how they manage their traditional knowledge, and how the processes of knowledge sharing in their communities contribute to the safeguarding of their knowledge.

The ethnic diversity of Sarawak's population brings about the diversity in their cultures, each ethnic group having their own unique heritage, identity, and language. Safeguarding the people's ICH means safeguarding Sarawak's cultural diversity. Thus recognizing the need to safeguard ICH, several cultural institutions were established in the Sarawak Civil Service to carry out safeguarding measures.

In the Dayak[1] culture, jars have symbolic meanings based on their being

> integral elements to healing rituals, marriage ceremonies, ancestor worship, mortuary practices and ceremonies involving the drinking of rice wine. The sacred quality given to jars and their prominent role in religious ceremonies and beliefs have made jars a ubiquitous symbol in Dayak iconography and art (Kreps, 2003, p. 38).

The sacred meanings of carvings on these jars, for example, are generally not explained in collection displays in cultural institutions. ICH managed in cultural institutions often fails to convey the intangible meanings and interpretations, especially in the voice of the knowledge holder.

Another ICH example is the *Pua kumbu,* the sacred ceremonial blanket of the Iban community in Sarawak. This ICH is a tribal identity symbol (Low, 2008) of the Iban community, 'inextricably linked with headhunting ... [and] used by women to incite men to take heads' (Heppel, 2005, p. 143). The processes and mastery of *pua kumbu* weaving represents the woman's status and personal identity (Kreps, 2012; Low, 2009). Even leading the chants in the procedure of dyeing the yarn 'can only be performed by a special person, a woman considered to be *gifted* in the

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[1] *Dayak is a generic term used for non-Muslim indigenous groups in Sarawak (Tan, 1997)*

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truest sense of the word, i.e. one assisted by a spiritual power' (Linggi, cited in Low, 2008, p.134). The meanings and the cultural sensitivities in the processes of weaving this ceremonial blanket are knowledge that forms part of the ICH, such as the knowledge expressed in folktales, songs, music, dances, and rituals (UNESCO, 2003).

1.5   Knowledge management in cultural institutions

Museum displays, archival documents, and library collections attempt to make ICH accessible to those who need to access the knowledge, and who have a legitimate stake in the knowledge. Displays and collections are representations of the communities, but most often reflect the views or perspectives of the curators, the archivists or the librarians, and are influenced by the political directions or the circumstances of the time (Joffrion & Fernandez, 2015; McCarthy, 2007).

In knowledge organization, for example, the cataloguing and classification of the knowledge contents of tangible materials in libraries and museums mostly use established Western-based classification and retrieval systems (Whaanga et al., 2015). These systems often do not include the hidden or intangible meanings of the ICH.

In the post-colonial paradigm, it is typically seen as important for the cultural institutions to include the actual voice of the source or originating communities. There are studies on the concern over the lack of appropriate terms to classify or describe and organize indigenous knowledge using existing Western-oriented classification and cataloguing systems (such as the Library of Congress Subject Headings, Sears Subject Headings) in libraries (Duarte & Belarde-Lewis, 2015; D. Lee, 2011). Duarte and Belarde-Lewis (2015, p.686) argued that the Western methods of cataloguing and classification of knowledge materials reduce the whole knowledge into parts, and as such, ignore the 'many networks of associations, - worlds of meanings - that make the artefacts sources of knowledge'. Lilley (2015) also echoed this concern on the inadequacy of the Library of Congress Subject Headings (LCSH) to address the corpus of Māori

traditional knowledge. Littletree and Metoyer (2015) similarly contended that the English language is not sufficient to include indigenous philosophies, and reduces the access points for retrieval of Native American languages and topics.

Researchers have called for the indigenous people to share their local knowledge within their communities and with cultural institutions to sustain and preserve their cultural heritage (Byrne, 2008; Krupnik, 2005; M. Nakata, 2002). There are organizations that undertake initiatives to document, digitize, and manage indigenous knowledge. One such example is a library sector collaboration comprising ten members including the National Libraries of Australia and New Zealand, and state libraries in Australia. One of the projects for this collaboration is on indigenous matters, where this group promotes 'best practices for the collection and preservation of materials relating to Aboriginal-Torres Strait Islander peoples, and supports the employment of indigenous staff' ("National and State Libraries Australasia," 2016) and published a guideline on working with the indigenous community (NSLA, 2013) to guide library professionals in developing 'meaningful engagements and reciprocity' with the knowledge holders and indigenous communities. This guideline is available online as a form of knowledge sharing with other knowledge professionals undertaking similar projects.

Another example is a seven-year (2008-2016) project initiated by Simon Fraser University (SFU) of Canada aiming to 'explore the rights, values, and responsibilities of material culture, cultural knowledge and the practice of heritage research' (SFU, 2016). The project also published online a guideline on the protocols of working with the indigenous community (Newsom, 2014). These two examples are knowledge management initiatives, both in documenting and managing indigenous knowledge, and most importantly, the documentation of organizational knowledge relating to the processes of working with indigenous communities.

1.6   Research objectives and research questions

The objectives of this research are:

(1) to explore and understand the knowledge systems of the indigenous people of Sarawak and how they share their indigenous knowledge embedded within their intangible cultural heritage (ICH);

(2) to build an understanding of the challenges that the cultural institutions in Sarawak face in safeguarding the ICH; and

(3) to use a knowledge management lens/lenses to help the cultural institutions to make informed decisions in their efforts to safeguard ICH, while respecting the canons of the indigenous people of Sarawak.

The research problem and objectives lead to the following research questions:

RQ 1

What is the nature of indigenous knowledge and knowledge sharing among the indigenous people of Sarawak?

RQ2

What issues do the cultural institutions of Sarawak face in safeguarding their intangible cultural heritage?

RQ 3

How can knowledge management support or facilitate the cultural institutions in safeguarding the intangible cultural heritage of the indigenous communities in Sarawak?

1.7   Significance of this research

Literature on the application of knowledge management in not-for-profit organizations such as cultural institutions is limited, and it is minimal on the subject of managing knowledge about safeguarding ICH. For this research, my interest is in how the CIs of Sarawak can best safeguard their own organizational knowledge relating to safeguarding ICH. However, before I can address the organizational knowledge of the CIs, I first need to have a better understanding of the safeguarding of indigenous knowledge of the indigenous people of Sarawak. This interest also focuses on the issues of ensuring the survival of the indigenous knowledge systems, worldviews, languages and the environment, under the challenges of globalization.

Scholars (Dutfield, 2000; Girsberger, 2008; Kreps, 2009; Leistner, 2004; Posey, 2002; von Lewinski, 2008) sympathetic to the cause of indigenous people and indigenous knowledge call for the protection, safeguarding and the recognition of the status of indigenous peoples' knowledge, which over the years has become more commercially attractive. These scholars also recognize the need for the indigenous people to control specific and widely useful knowledge (Battiste & Henderson, 2000), which requires their involvement with the CIs.

1.8   Researcher's background

I am a Melanau, which is one of the indigenous communities included in this study. My professional background involves working at a cultural institution, specifically a library. I lived with my grandmothers during my childhood, and both of them were knowledgeable about traditional healing. I used to assist them by picking plants, and helping with the preparations, but never the actual carrying out of the knowledge, nor was I given the knowledge, although I used the products of the knowledge. Now that both of them have passed on, most of their healing knowledge has been lost. As a practitioner in a cultural institution I am part of a team that undertakes some ICH safeguarding projects. Indigenous

knowledge still mystifies me, particularly regarding what it takes for the indigenous people to share their knowledge with the cultural institutions.

I consider the perspective of this research as emergent. It aims to develop an understanding the nature of indigenous Sarawak people's knowledge, their knowledge sharing activities and processes, and explore the possibility of using knowledge management (knowledge organization, knowledge sharing) among the cultural institutions to improve the safeguarding of indigenous ICH. I have used my ethnic origin and professional background as advantages in conducting my research, as 'these relational considerations are the fundament of a narrative inquiry' (Caine, Estefan, & Clandinin, 2013, p. 583). Being indigenous, I am able to understand and abide by the cultural protocols of my indigenous participants, easing their acceptance of me. My professional background allowed me to use my established networks with the CIs and the organizations or people that linked me to my participants. However, there were instances where, due to my educational and professional background, some of the indigenous participants expected me to be unable to accept certain aspects of their knowledge, for example, the sacred or spiritual dimension of their knowledge. These instances were frustrating as that meant it took me a longer time to gather the information that I needed for my research. This also meant I had to expand my network to other people outside of my CI circles, to help link me to the indigenous knowledge holders.

1.9   Definitions of key terms used in this study

Listed here are the definitions of the key terms that are used in this study, and I have given definitions of ICH in an earlier section.

Cultural institutions (CIs) are organizations, mostly government initiated, that acquire and preserve intellectual, cultural, social, economic and political development heritage. For the context of this study, it is confined to the cultural institutions established in the Sarawak Civil Service.

Indigenous knowledge (IK) comprises

> the complex set of technologies developed and sustained by indigenous
> civilizations. Often oral and symbolic, it is transmitted through the
> structure of indigenous languages and passed on to the next generation
> through modelling, practice and animation, rather than through the
> written word [and] is typically embedded in the cumulative experiences
> and teachings of indigenous peoples. (Battiste, 2002, p. 2)

The term *traditional knowledge* is also used to mean indigenous knowledge in this
study. I will mainly use the term *indigenous knowledge.*

Indigenous people refers to those people who 'remain culturally distinct, some
with their native languages and belief systems still alive. [They] possess the
ancient memories of another way of knowing that informs many of their
contemporary practices' (Smith, 2008, p. 115). I also refer to them as **source
communities**, i.e. being the source of indigenous knowledge and ICH.

Intangible cultural heritage (ICH) encompasses

> the practices, representations, expressions, knowledge, skills – as well as
> the instruments, objects, artefacts and cultural spaces associated
> therewith – that communities, groups and, in some cases, individuals
> recognize as part of their cultural heritage. This intangible cultural
> heritage, transmitted from generation to generation, is constantly
> recreated by communities and groups in response to their environment,
> their interaction with nature and their history, and provides them with a
> sense of identity and continuity, thus promoting respect for cultural
> diversity and human creativity...[The ICH] manifested *inter alia* in the
> following domains: (a) oral traditions and expressions, including language
> as a vehicle of the intangible cultural heritage; (b) performing arts; (c)
> social practices, rituals and festive events; (d) knowledge and practices
> concerning nature and the universe; (e) traditional craftsmanship.
> (UNESCO, 2016, p. 5)

Knowledge management (KM) involves managing the relationships between
human knowing and organizational knowledge, embedded in the integrated
community of skilful practices (Spender, 2015). For the purpose of this research,
KM includes managing human knowing and organizational knowledge derived
from the processes of the cultural institutions in safeguarding the ICH. KM in this

study also refers to the way of managing indigenous knowledge in cultural institutions, respecting the protocols and cultural sensitivity of the people.

Knowledge sharing is a component of knowledge management which refers to the dual process of deliberately enquiring and contributing to knowledge through activities such as learning-by-observation, listening and asking, sharing ideas, giving advice, recognizing cues, and adopting patterns of behaviour. Knowledge is made reusable through this sharing (Bosua & Scheepers, 2007; C. K. Lee, . & Al-Hawamdeh, 2002).

Safeguarding of the intangible cultural heritage includes the 'identification, documentation, research, preservation, protection, promotion, enhancement, transmission, particularly through formal and non-formal education, as well as the revitalization of the various aspects of such heritage' (UNESCO, 2016, p. 6).

A complete glossary of indigenous terms used in this research is included in Appendix 9.

1.10   Structure of the thesis

My thesis consists of eight chapters. In the next chapter, I cover the literature on knowledge management in CIs, focusing on the treatment and management of indigenous knowledge in cultural heritage institutions. Also included in the literature review are prior studies about indigenous knowledge and the post-colonial movement in heritage management, and knowledge management pertaining to knowledge sharing with a focus on ICH and cultural institutions. Based on the literature, I developed a conceptual framework to guide the data analysis for this study.

I discuss the choice of the methodology used to conduct my research in Chapter 3, and I share the narratives of my methodology journey in Chapter 4. I find it imperative to share these narratives as part of my contribution towards understanding conducting research as an indigenous person, with indigenous people as participants. The findings of my research are elaborated in Chapters 5

and 6, with the findings from the perspectives of the indigenous people in Chapter 5, and the findings from the perspectives of the cultural institutions in Chapter 6. In Chapter 7 I discuss the findings, and revisit and revise the conceptual framework. I conclude with the practical and theoretical implications of my research, my recommendations for future research, and the limitations of my study, in Chapter 8.

Chapter 2   Literature Review

The cultural institutions (CIs) of Sarawak are entrusted to help safeguard and preserve indigenous knowledge and its intangible cultural heritage (ICH). The participation of the indigenous people as source communities of ICH for the CIs is important as one of the safeguarding measures for the sustainability of indigenous knowledge. Engaging and collaborating with the indigenous people will also assist the CIs in understanding both the knowledge holders and the nature of the indigenous knowledge system.

To situate this study, using a knowledge management lens to address the CIs' practice of collaborating with the indigenous people, and the intra- and inter-organizational management of knowledge relating to safeguarding indigenous knowledge, I used literature mostly from the knowledge management (KM), information studies, and heritage management fields. First, I introduce the need to manage the CIs' own knowledge on safeguarding ICH. An exploration of the dimensions of 'knowledge' in my study is next. A section on indigenous knowledge provides a basis for understanding the nature of indigenous knowledge. The sections that follow will discuss the manner in which the CIs curate ICH in their collections, and literature on knowledge management in cultural institutions. Following that are sections on globalization and the post-colonial movement as both affect the CIs in their heritage management. I conclude this chapter with a conceptual framework to guide my study.

2.1   Introduction

In 2016, Bonn, Kendall, and McDonough presented a research agenda calling for increased research on intangible cultural heritage and its preservation. Their call for research was the most recent call for action on this topic when this thesis was being written. They stated that 'intellectual interpretability' (Bonn, Kendall, and

McDonough, 2016 p.16) of indigenous knowledge requires more than just documentation.

Cultural institutions will not be able to preserve indigenous knowledge activities with documentation alone. There is a need to understand the 'processes by which the communities themselves preserve their own intangible cultural heritage, and approach the issues of capture, preservation, and access to documentation with an eye towards ensuring it supports those communities' efforts to sustain their own heritage' (Bonn et al., 2016, p. 4). These authors emphasized the need for CIs to acquire an 'ethnographic understanding of communities' to carry out preservation and safeguarding activities, i.e. with the participation of the source communities.

The above authors also stated that much of the staff's knowledge involved in managing the process is not being documented. Knowledge of the human resources and procedures involved in the documentation process also needs to be documented, as these encompass organizational knowledge that can be used for organizational learning. 'Preservation and conservation activity can be highly dependent on knowledge and practice that is not documented and in some cases is very difficult to pass on to others through tangible means such as books or audio/visual recordings' (Bonn et al., 2016, p. 4). Thus, there is a need for the 'interconnectedness of recorded knowledge, and the necessity of preserving recorded context for a work if you wish to preserve its intellectual interoperability' (Bonn et al., 2016, p. 4).

The social reality upon which I based my study is that the ways the CIs acquire indigenous knowledge are insufficient to ensure the 'intellectual interpretability' of the ICH for safeguarding, which raises the question of whether the knowledge created from the documentation processes is actually being captured as knowledge resources by the CIs. The statement by the authors above indicates the need for managing the practices of the CIs' collaborations with the indigenous people in identification, acquisition and other safeguarding measures.

2.2 Dimensions of Knowledge

To determine what should be considered 'knowledge' in the CIs, I have adopted Spender's (2015) view of what 'knowledge' is, i.e. the type and context of knowledge to be discussed depends on the type of firm. He used the 'firm-first' approach, i.e. knowing the firm is important 'so as to know and understand the kinds of knowledge the organization needs to exist and prosper' and sets the parameters that separate the organizational knowing from other broader matters. For my study, I have considered the term 'firm' to be broad in scope and thus including a wide range of organizations, including CIs.

According to Spender (2015), the subjectivist or 'knower-centred' epistemological paradigm sees 'knowledge' as the interplay of different, discrete and contrasting experience modes of personal knowing, which also includes human values such as faith, emotions and morality. As such, KM, according to Spender (2015), is about managing the relationships between human knowing and organizational knowledge, embedded in the integrated community of skilful practices.

According to Davenport and Prusak (1998) knowledge resides in human minds, is fluid and complex, and is where data and information are transformed through comparison, consequences, connections, and conversations. Knowledge is action, and can be obtained from individuals, groups of knowers and sometimes in organizations' routines. Knowledge is an outcome of experience, which gives the grounded truth of what works and what does not, accounting for the complex nature of knowledge. The authors also acknowledged that knowledge contains judgement, and it is a living system, which grows and changes as it interacts with the environment. Values and beliefs are integral to knowledge and it is these two factors that give knowledge the power to organize, select, learn and judge.

The notion of knowledge for this study is based more on the human or subjective aspect of KM, i.e. the tacit dimension of cultural institutions' organizational knowledge about safeguarding indigenous knowledge. Knowledge for this study is also about understanding indigenous knowledge and the ways of sharing

indigenous knowledge. It is an interplay of different and contrasting modes of personal knowing, knower-centred, with knowledge in both its tacit and explicit dimensions (Spender, 2015), embedded in human activities or practices, inseparable from the knower and from explicit knowledge (Hislop, 2013). Alavi and Leidner (2001) underscore the issue of 'the amount of contextual information necessary for one person or group's knowledge to be readily understood by another' (Alavi & Leidner, 2001, p. 112).

Aaron (2011) and Ipe (2003) view Davenport and Prusak's notion of knowledge as a pragmatic tool in KM for framing experience, sharing insights and assessing practical tasks. With this point of view, Aaron stated that KM focuses on understanding the uses of knowledge in order to effectively deal with the pragmatic tasks that involve knowledge-based activity. As such, KM is primarily concerned with knowledge as it is generated, shared, stored and used within a collaborative environment. Hislop (2013) defined such knowledge as a 'practice-based perspective on knowledge' (Hislop, 2013, p. 32) where knowledge is individual and collective, both in tacit and explicit dimensions, embedded in the knowing and doing of activities.

Data, information, and knowledge are foundational terms widely used and defined in KM literature (Ackoff, 1989; Liew, 2013; Rowley, 2007). To situate the differences between data, information and knowledge in relation to collecting institutions such as museums, libraries and archives, I chose Robinson's (2014) descriptions. According to Robinson (2014), data is anything 'available to observation or perception while information is a tangible record of a perception event – the rendering of data into a communicable form' (p. 214). Information can be made physically available, manipulated, stored and exchanged in various ways. Robinson iterates that the presence of information on its own is no guarantee that knowledge will be produced.

> Knowledge is a personal response to information, it cannot be frozen, recorded and passed on in the same physical ways as information. Knowledge then, is created when an individual internalizes information in order to alter his or her reality in some meaningful way. (p. 214)

Knowledge needs the individual's interactions with information, with his or her context and practice, to produce meanings.

In summary, 'knowledge' as referred to in this study looks at:

(a) the nature of knowledge of the indigenous people that needs to be safeguarded by the CIs. CIs use different ways of organizing and interpreting their collections of indigenous knowledge for accessibility. There is potential for cultural institutions' collection information to be organized and contextualized (Robinson, 2014a); and

(b) the organizational knowledge inherent in the staff of the CIs in the safeguarding processes. The processes of organizing and contextualizing the acquired indigenous knowledge results in a corpus of knowledge generated by the information specialists in these organizations.

In the following section, I discuss how the literature defines 'indigenous knowledge', its characteristics and how this knowledge is shared in the indigenous community.

2.3   Indigenous Knowledge

Indigenous knowledge, also known as traditional knowledge, is a way of knowing (Berkes, Colding, & Folke, 2000) where knowledge is held and practised by the local or indigenous people (Dutfield, 2001; M.Nakata et al., 2006; Purcell, 1998; Sen, 2005; Sillitoe, 2015). This knowledge, according to Grenier (1998, pp. 2-3):

> is an integrated body of knowledge, which includes: learning systems, local organization, controls and enforcement; local classification and quantification; human health; animal behaviour and animal diseases; water management and conservation systems; soil conservation and practices; agriculture, agroforestry and swidden agriculture; textiles and crafts; building materials; energy conversion; tools, and changes to the local ecosystem over time.

Indigenous knowledge is defined as a cumulative, dynamic body of knowledge, practice, and beliefs (Berkes et al., 2000), that includes a system of classification, a set of empirical observations, and a system of self-management, built by a group of people through generations of living in close contact with nature (Johnson, 1992). This knowledge, about the relationship of living beings (including humans) with one another and with their environment (Berkes et al., 2000; Daes, 1997), evolves by adaptive processes and is handed down through generations by cultural transmission. This knowledge flows from the same source, which is the product of interrelationships between humans, their land, and their kinship with other living beings as well as the spiritual world. This is a holistic manifestation of the indigenous people (Daes, 1997).

This knowledge, which may be holistic in outlook and adaptive by nature (Berkes et al., 2000) is firmly rooted in the past, based on the experience of earlier generations, whose lives depended on this information and its use (Johnson, 1992). The accumulation of this knowledge is incremental, generated and tested by trial and error. It is handed down orally, by observation and through shared practical experiences and apprenticeship.

Indigenous knowledge, including ethno-scientific knowledge, is manifested in ICH such as songs, music, dances, literary prose, artworks and crafts. These belong to 'the distinct identity of a people and is theirs to share, if they wish, with other people'(Daes, 1997) according to their own set of procedures and laws.

In recent years, interest in indigenous knowledge has increased as the value of the traditional knowledge of indigenous people is now being recognized (Battiste & Henderson, 2000; Daes, 1997; Pillay, 2008). Johnson (1992) stipulated that interest in medical, botanical and ecological knowledge of indigenous people requires measures that will enable the indigenous people to retain control over their remaining cultural, intellectual, and natural wealth, for their continual sustainability and self-development. Efforts are in place to research, document, record and manage this knowledge for posterity (Johnson, 1992). For example, the World Intellectual Property Organization (WIPO) developed a toolkit for the

documentation of traditional knowledge, aimed at the traditional knowledge holders, to identify and safeguard their intellectual property (WIPO, 2012b). The impact on the documentation of ICH has a bearing on libraries and knowledge institutions that support democratic access to their collections, and as such the International Federation of Library Associations and Institutions (IFLA, 2012) published a statement to assist these institutions to accommodate the rights of the indigenous knowledge holders to restrict access and the dissemination of their knowledge.

2.3.1   Characteristics of indigenous knowledge

Indigenous knowledge is a 'living knowledge embedded in indigenous worldviews that humans and nature are interconnected and interdependent, linked by a kind of symbiotic relationship' (Mazzocchi, 2008/2009). The concept of indigenous knowledge is culturally centred (Purcell, 1998) and to the indigenous people this knowledge originates from a spiritual base where all creation is sacred; thus the sacred is inseparable from the secular. Due to the holistic nature of this knowledge, compartmentalizing or fragmenting it into separate elements can lead to misinterpretation.

Posey (2002) postulated that indigenous knowledge is universal knowledge expressed by the local experts who are aware of nature's organizing principles. Indigenous knowledge that is in the public or communal domain is knowledge for everyday living and sustenance. Indigenous knowledge is interdependent on the relationships between humans, nature, the tangible visible world and the invisible spirit world (Posey, 2002). This knowledge has been inherited and preserved from the past, handed down from generation to generation and mostly transmitted orally. Knowledge acquisition is derived from traditions encoded in daily rituals and cultural practices. Indigenous elders are often the knowledge holders whose sources of knowledge are spiritual revelations and insights. Their indigenous knowledge systems are rooted in their cultural settings, mostly associated with different ways of living (Battiste & Henderson, 2000; Dutfield, 2000; Posey, 2002).

However it should not be considered *old* knowledge. This knowledge has been adapted to changing needs and environments, preserved and transmitted within the community. Indigenous knowledge of values, self-government, social organization, managing the ecosystems, maintaining harmony in the communities, and respecting the land, is embedded in the arts, songs, poetry, and rituals. These must be learnt and renewed by each succeeding generation of indigenous children (Daes, 1997). 'The social structures that create, use, preserve, and pass down indigenous knowledge between generations and the customary laws and protocols that govern these processes, are deeply rooted in their traditional location and community setting' (Taubman & Leistner, 2008, p. 60). Battiste and Henderson (2000, p. 42) described the following structures for the indigenous ways of knowing:

- Knowledge of and belief in unseen powers in the ecosystem

- Knowledge that all things in the ecosystem are dependent on each other

- Knowledge that reality is structured according to most of the linguistic concepts by which indigenous people describe it

- Knowledge that personal relationships reinforce the bond between persons, communities and ecosystems

- Knowledge that sacred traditions and people who know these traditions are responsible for teaching 'morals and ethics' to practitioners who are then given responsibility for this specialized knowledge and its disseminations, and

- Knowledge that an extended kinship passes on teachings and social practices from generation to generation.

Battiste and Henderson (2000) also argued that knowing the complex nature of natural forces and their interrelationships is an important context for indigenous knowledge, as there is no separation or categorization of knowledge in indigenous thought. These authors further iterated that modern researchers 'may know the name of a herbal cure and understand how it is used, but without the

ceremony and ritual songs, chants, prayers, and relationships, they cannot achieve the same effect' (Battiste & Henderson, 2000, p. 43). This bundle of complex interrelationships provides the meaning and usefulness of the knowledge. Once a component of the knowledge is detached from this bundle of relationships, regardless of whether it is a tangible object such as the medicine or source of medicine, or a ceremonial tool, or an intangible ICH such as a song or story, the knowledge would have no meaning at all.

It is the responsibility of the indigenous person who possesses this knowledge to show respect for and to maintain continuous reciprocal relationships with aspects of the environment that comprise the components related to the indigenous knowledge (Battiste & Henderson, 2000;, 1992; Whitt, 2009).

Johnson (1992) identified that the generation of indigenous knowledge is also based on:

- The understanding that the natural world is accompanied by spirits, thus there is a life force in elements of matter

- Human life as being on an equal platform with other animate or inanimate elements, interdependent on each other

- The holistic and qualitative nature of knowledge which is based on the data generated by resource users

- The worldview that is based on social and spiritual relations of all life forms

The explanations of life phenomena from cumulative, collective, and spiritual experiences are verified, checked, revised daily and adapted through changing cycles of life activities.

2.3.2 Intangible cultural heritage

Indigenous knowledge produces ICH, which is expressed, communicated, appears or is manifested in both tangible and intangible forms. The highly integrated and holistic approach to natural and spiritual phenomena in indigenous culture contributes to the often overlapping nature of both indigenous knowledge and ICH (Pilch, 2009).

ICH is a vehicle for religious and cultural expressions and has been handed down for generations and transferred verbally. It reflects the indigenous community's cultural and social identity that characterizes the community's heritage elements (Girsberger, 2008; Pilch, 2009; WIPO, n.d.). The ICH contains knowledge that is encoded in verbal expressions such as stories, riddles, proverbs, rituals, music and songs. ICH is also expressed in crafts, such as weaving and other forms of native arts, which change and are reconstructed within the indigenous communities (Pilch, 2009).

Daes (1997), in her report for the United Nations, gave an example of the holistic nature of knowledge of the indigenous people of the Pacific North-West coast in North America. For generations, this community has been associated with the sub-species of salmon which returns annually to the territory, and is considered their kinfolk. The songs, stories, designs, artworks and ecological wisdom connected to salmon are interrelated. Managing these categories of knowledge containers, with the associated knowledge, is essential to the survival of this indigenous community's heritage. The sub-species of salmon is a major part of their heritage; however, if the ecosystem and its knowledge were not managed, the sub-species of salmon would become extinct, which eventually would result in an end to the use of ICH related to salmon in the community. Although some ICH would continue to exist, the inherent meanings of their actual use in the salmon-related ceremonies would diminish or change over time.

ICH comprises culturally sensitive objects. Kreps (2003) used a quote from Williamson (1997) to describe these objects as:

> those that may be considered to be of special significance in a particular culture. In many cases these objects are believed to be, or have been in the past, spiritually active or possessing spiritual power. Objects used by shamans, for example, may retain some of the power they were endowed with at the time of use. Other examples of culturally sensitive objects are those that are used exclusively by men and for which handling by women would be culturally inappropriate. (Kreps, p.91)

Efforts to document this knowledge as part of preservation and safeguarding measures meet with challenges, especially regarding their sacred and secret aspects. Indigenous communities are so protective of the documentation of their sacred-secret knowledge that some have demanded the repatriation of these documents, as they wish them to be removed from the public domain. These communities perceive that documentation of their intangible heritage may not protect the knowledge, but facilitate its exploitation. However, there are examples of documentation initiatives that respect the indigenous canons of confidentiality through local practices such as 'by creating indigenous archives or "keeping places"' (Brown, 2005, pp. 48-52).

Indigenous knowledge needs to be preserved and safeguarded, respected, maintained and managed, not only because of its crucial and monetary value, but also because this knowledge represents the heritage and the distinctness of the indigenous peoples. 'The erosion of indigenous knowledge concerns both the indigenous people, to whom the knowledge belongs, and the non-indigenous people who seek to know more about it' (Battiste & Henderson, 2000, p. 11). Dutfield (2000) considered the diminishing or disappearance of indigenous knowledge as a tragedy for those communities whose survival depends on their knowledge systems.

The World Intellectual Property Organization (WIPO, 2004) sees the need for protecting ICH. The sacred and secret knowledge of the ICH 'can be protected defensively' with controls over accessibility and rights, while ICH such as handicrafts and music that can generate commercial value 'may be positively

protected as part of a community trading enterprise and against imitation or fakes' (WIPO, n.d, p. 13). However, WIPO's focus is more concerned with the protection of ICH as intellectual property. This is due to the increasing recognition of indigenous knowledge's contribution to innovations that can help sustain the livelihoods of millions of people globally (Elok, Ratna, & Laxman, 2009; Grenier, 1998; M.Nakata et al., 2006).

The literature (Becvar & Srinivasan, 2009; Isaac, 2005; Nakata et al., 2006) indicates that the differences in the management of documented indigenous knowledge in cultural institutions, mostly developed along Western or Euro-centric models, from that of the indigenous knowledge systems, are causing tensions between the heritage institutions (as the 'keeping places' of the objects) and the source communities (as holders of indigenous knowledge).

Heritage institutions may have the primary roles of preserving the documents and providing access to knowledge including heritage knowledge, but it must be done with the consent and involvement of the source communities. Indigenous people require proper handling of their ICH due to the deep connection with their spiritual beliefs, cultural identity, worldviews and their indigenous laws. As the ICH is often considered sacred, not all knowledge inherent in it is to be shared or accessed outside of the indigenous community. Pilch (2009) underscored the need for CHI staff to understand the special requirements of ICH, and to have policies and procedures for handling it.

2.3.3   Sacred and secret knowledge

Indigenous societies have ways to generate, use, share, control and manage their knowledge. Respect, preservation and maintenance of indigenous knowledge are holistic and cannot be compartmentalized like scientific knowledge (Mazzocchi, 2008/2009; Posey, 2002). This aspect of knowledge impedes knowledge sharing as well as the processes of preserving and conserving indigenous knowledge. Though documentation and recordings are considered pragmatic measures to preserve and manage this knowledge, knowledge holders can be reluctant to

share the knowledge due to the spiritual rituals and requirements of the knowledge.

According to the Four Directions Council, a Canadian indigenous people's organization, the social process of acquiring, learning, and sharing traditional knowledge is done in indigenously distinctive ways, according to the indigenous people's culture (Dutfield, 2000). Indigenous peoples view this knowledge as originating from a spiritual base, where 'all creation is sacred, and the sacred and secular are inseparable. Spirituality is the highest form of consciousness, and spiritual consciousness is the highest form of awareness' (Posey, 2002, p. 3). In the context of the knowledge of the environment, Posey argued that there are complementary relationships between humans and nature, and between the visible world and the invisible spirit world, as 'behind visible objects lay essences, or powers which constitute the true nature of those objects' (Posey, 2002, p. 4).

Cultural pedagogy, where the culture of the community functions as a form of education (Posey, 2002), is common to indigenous communities. Educating through socialization within the communities gives the opportunity for knowledge holders to share their knowledge, most often through storytelling or the use of narratives. Experience, imagination, dreams and visions form the knowledge within the indigenous knowledge system. Dreams and visions are vehicles of knowledge where human beings communicate with and learn from the non-human beings. This knowledge is transmitted by using stories that enable the explanation of experience (Whitt, 2009). Whitt posited that the process of telling stories and the stories told are significant in the intergenerational transmission of indigenous knowledge as a responsibility of the knowledge holders, as well as the passing on of knowledge as a gift. This includes the responsibility of determining when and to whom the stories should be told.

2.3.4   Internal sharing of indigenous knowledge amongst indigenous people

This section highlights the literature on the ways of knowledge sharing amongst the indigenous people. The content of this section relates directly to one of the objectives of this research, i.e. to understand how the indigenous groups of Sarawak share their knowledge, an important aspect for the CIs in their acquisition and management of ICH.

Indigenous knowledge is a communal matter, associated with a family, clan, tribe or other kinship groups. The group as a whole can consent to the sharing of the knowledge through specific decision making processes and procedures, which depend on the type of knowledge to be shared, when and with whom they can share the knowledge (Daes, 1997). The sharing of indigenous knowledge creates a relationship between givers and receivers of knowledge. The givers retain the authority to ensure that knowledge is used properly and the receivers continue to recognize and repay the gift. In whatever way consent is given, it is always temporary and revocable as the knowledge can never be alienated, surrendered or sold, except for conditional use (Battiste & Henderson, 2000; Daes, 1997). The ability to possess as well as share indigenous knowledge from time to time with others gives the indigenous people their own dignity, identity and value. This knowledge can continue to be shared at appropriate times and in appropriate ways.

Indigenous knowledge is circulated and communicated in culturally situated or culturally sensitive ways. Established hierarchies determine the proper ways of sharing and accessing this knowledge. Certain protocols and implicit cultural factors influence the sharing of knowledge. These are often beyond conscious views, but are significant for different levels of access and dissemination (Becvar & Srinivasan, 2009). Usually an individual or a small group of people within the community acts as custodian or caretaker of the tangible and intangible 'containers' of knowledge, but they do not 'own' the knowledge. They have the right to determine how to share it and how the shared knowledge is to be used. Sharing of this culturally sensitive knowledge is transmitted through a period of

apprenticeship and tutelage, most often restricted to family members and groups (Battiste & Henderson, 2000; Daes, 1997).

In Isaac's (2005) research comparing the Euro-American and Zuni approaches to the transmission of knowledge, it is noted that 'secrecy did not merely reflect a hierarchical power-structure, it also implied that knowledge itself was both powerful and dangerous and therefore required specific care by its guardians' (Isaac, 2005, p. 5). Access to sacred and secret knowledge is restricted to certain individuals in the community. It is only accessible to those who are designated or privileged for such purposes. The knowledge cannot be revealed in totality to the rest of the community. Due to this restriction, the totality of the knowledge assets in the community will not be known. From a Western perspective, this is a knowledge-sharing barrier.

The custodians, holders or owners of this sensitive knowledge have their own social and cultural identity. The teaching and sharing of this knowledge can be complex, with deep roots in the indigenous culture. In his examination of the documentation of indigenous knowledge and cultural heritage in the Bering Strait region of North America, Krupnik (2005) noted that basic subsistence and practical skills were normally transferred and shared simply by watching and following other family members, usually one's elders. But 'every kin group, every family had its pockets of restricted (non-shared) knowledge' (Krupnik, 2005, p. 74) which could only be shared under specific conditions or requirements. Secret and sacred knowledge is often the responsibility of specific individuals who are keepers for the community they belong to (Isaac, 2005).

The literature (Battiste & Henderson, 2000; Daes, 1997; Isaac, 2005; Krupnik, 2005) mentions other factors influencing the sharing of such knowledge including gender differences, age, division of identity (geography, labour, lineage, heredity), and taboos.

Krupnik noted that in the Bering Strait region, indigenous knowledge 'was always personalized and sanctioned by the authority of its bearer(s), such as senior family relatives or village elders. It was a path to prestige, success and community

respect' (Krupnik, 2005, p. 74). Holders of secret and sacred knowledge have roles to play in the community. Identity theory explains that their behaviours are related to their roles, which underpin their social identity in their community. Their identity as knowledge holders acts as a compass to guide their social meanings and interactions in the indigenous community. The holder's interactions with others reflect the holder's attributes. The holder's identity as the knowledge repository in the community is formed and maintained through the social processes, thus locating him or her in the community's social categories. For example, a person's role as the shaman or as the medicine man is embedded in the social life of the respective community, thus reducing the holder's function or role to 'owner', but 'elevating' his function to that of an 'organ' of the community (Leistner, 2004).

The opportunities and roles as knowledge holders produce meanings for their self-identity as well as their social identity (Burke & Reitzes, 1981; Stets & Burke, 2000). The social demands from the communities also have an impact on the social characters of the knowledge holders, and in the context of this study the knowledge holders from the indigenous communities will be working closely with the CIs to document and record their knowledge. They are pivotal in identifying and controlling the access and use of their knowledge (Joffrion & Fernandez, 2015).

In the next section, I review the literature on the curatorship of ICH in cultural institutions.

2.4 The curatorship of intangible cultural heritage in cultural institutions

In this section, I discuss the roles of cultural institutions as memory institutions designated to collect, manage, disseminate and share the documented ICH.

Identification and documentation are amongst the measures for safeguarding mentioned in the UNESCO *Convention* (UNESCO, 2016). Documentation ranges from written materials such as manuscripts, reports, and field notes, to other media formats such as photographs, films, audio and video recordings, illustrations, drawings, paintings, and three-dimensional artefacts. These documents are containers that help preserve traditional cultural expressions/intangible cultural heritage (Singer, 2006). These containers are deposited in cultural institutions such as museums, libraries, archives, and art galleries as repositories of knowledge.

The documented items of ICH collected in these cultural institutions are preserved according to the institutions' preservation management policies and practices, to ensure 'what the future will inherit from the present as well as what the present has inherited from the past' (Feather, 2004). Preservation allows other human dimensions to surface, for example, the intellectual substance of what is preserved, the excitement of a viewer in a museum or gallery who enjoys the aesthetic pleasure of viewing cultural heritage being displayed, the joy of a person who discovers his or her family roots, or nostalgic memory derived from documentary and pictorial evidence of the social and economic development of a place.

Current practices of cultural institutions with regard to preservation management of ICH tend to *separate* the tacit (in the minds of the people, intangible) and the explicit (the artefacts, tangible) knowledge of cultural heritage (Kimberley Christen, 2015). There are also arguments against documentation as a form of safeguarding and preserving ICH, as mentioned earlier (Kurin, 2007). Culture is a living and changeable entity, and 'ICH is not to be considered as something to be preserved under a glass case, but as a cultural space' (Lenzerini, 2011, p. 108).

However, if the processes of identification, documentation and other measures of safeguarding ICH are not initiated, the changes and progression of ICH would erode and die with the knowledge or tradition bearers, borrowing Early and Seitel's phrase 'There's no folklore without the folk' (Early & Seitel, 2002).

The main themes of preservation practised in cultural institutions are the provision of proper and appropriate storage with environmental control, risk mitigation and assessment. The themes also include: metadata control for identifying what heritage assets are available in the institutions; inventory control, which indicates the location of the assets; and preventive care preservation measures to conserve and prevent deterioration of the object (Eden, Bell, Dungworth, & Matthews, 1998; Feather, 2004; Gorman & Shep, 2006; Harvey & Mahard, 2014; Merrill, 2003; Porck, Ligterink, de Bruin, & Scholten, 2006; Porck & Teygeler, 2000; Walker, 2006).

These processes of preservation management of material and documentary heritage are well established, as is evident in the literature (Eden et al., 1998; Eden, Feather, & Matthews, 1994; Feather, 2004; Gorman & Shep, 2006; Matthews, 2004; Porck & Teygeler, 2000; Walker, 2006, 2007).

Other repositories of heritage materials use technology and digitization as methods to capture, preserve and disseminate indigenous and cultural knowledge. Hsu, Ke, & Yang (2006), Stevens (2008) and Zuraidah (2007) carried out studies on the institutions that undertook indigenous KM projects. The authors agreed that the processes of preservation and management of indigenous knowledge provide ample opportunities for knowledge creation by staff of cultural institutions. They call for indigenous communities' participation in these projects too. However, these authors focus on the management of the objects as containers of information, such as recorded oral history, books, reports, and artefacts. The authors support easy accessibility and open domains for traditional knowledge, but make no mention of what treatment should be undertaken or observed for culturally sensitive domains of traditional knowledge to be incorporated in the organizational knowledge of safeguarding.

The literature discussed here has covered what preservation management is, as practised in cultural institutions, and what preservation management and safeguarding of ICH require. Preservation is an essential component of the aspiration towards perpetual access to information in the gallery, library, archive and museum (CI) sector. However, the main focus of preservation management, especially in those institutions that adopt Western practices, is on the tangible documentary heritage. Increasingly, there is a change towards preservation including the intangible aspects of the tangible artefacts. Captured organizational knowledge should be as inclusive, multidimensional, rich and complex as possible. This provides continual and synergistic linkages for accessibility to the records, which help sustain the *life* of a culture.

Preservation management of ICH has to be holistic, encompassing the cultural significance of a heritage object, which should not be separated from the preservation of traditions, oral history, community, and identity (Kurin, 2007; Ogden, 2007). Collaborations within and between cultural institutions as well as with the source communities of the intangible knowledge can help in making knowledge as holistic as it was intended to be (Joffrion & Fernandez, 2015; Maina, 2013; Mathiesen, 2012; Ocholla, 2007).

Ideally, indigenous people's knowledge should be preserved in the community, but more of their knowledge is being documented as one of the safeguarding measures. Simpson (2007) advocated the application of indigenous KM practice, and Kreps (2009) called for the inclusion of indigenous curatorial practices in heritage institutions to enable communities to create cultural facilities where duration, conservation and interpretation conform to the cultural and religious values and customary laws of the indigenous communities.

The inclusion of indigenous safeguarding ways maintains the integrity of the objects in relation to the social world in which they operate. For example, in Australia, to respect the indigenous canons of confidentiality, local practices such as 'creating indigenous archives or "keeping places" are adopted' (Brown, 2005, pp. 48-52). While preserving the cultural materials, and transmitting and

maintaining the traditional knowledge and cultural practices associated with the objects, *keeping places* uphold the indigenous knowledge system and integrate modern KM processes. These tasks are:

> carried out within the epistemological framework of the indigenous cultural law, according to the KM protocols associated in sacred and ceremonial aspects of culture which determine the secret/sacred material is accessible only to those with the appropriate status'. (Simpson, 2007, p. 246)

The preservation of the ICH is achieved not just through the physical preservation of the objects, but by also safeguarding the knowledge contained in these objects through continual use and through the protection and concealment of restricted aspects of culture, which form components of the ICH. It is imperative that the CIs know the nature and types of the knowledge contained in the ICH. At the same time, the organizational knowledge created in acquiring and managing the ICH needs to be documented too. The knowledge sharing of both parties requires collaboration between the CI sector and the source communities.

2.5 Intangible cultural heritage in cultural institutions: Tensions in management

The efforts of CIs to institutionalize, democratize and manage indigenous knowledge along Western paradigms of KM often create tensions between the institutions and the source communities (Becvar & Srinivasan, 2009; Isaac, 2005). In the CI sector, Western KM's emphasis on the importance of objects (displays, books, documents) does not accommodate the 'living' or intangible culture and as a result does not align with the indigenous knowledge systems. When the tangible object is separated from its intangible meanings, 'knowledge is no longer unified or monolithic; it becomes fragmented' (Hooper-Greenhill, 2007, p. 82).

It also is important to point out that many authors have commented that in indigenous KM systems, not all knowledge should be in the public domain, or should be accessible to everyone (Battiste, 2008; Becvar & Srinivasan, 2009; Byrne, 2008; M. Nakata et al., 2006; Pilch, 2009).

Cultural institutions that safeguard indigenous knowledge need to work closely with the groups they intend to serve, in this case, the indigenous communities. The sources of the knowledge containers and the knowledge itself are the indigenous people; as such, these institutions require an understanding of the cultural and epistemological framework of these people (Simpson, 2007).

In his discussion of indigenous knowledge systems, Leistner (2004) observed that they contain knowledge, owned and transmitted collectively. Knowledge is acquired and created through practice and observation, and shared orally, by narrative or story-telling. These knowledge systems are integrated with historical, ethical, spiritual and religious aspects that form part of the very identity of the respective indigenous group or local community. Various models of ownership depend on the combination of individuals and the collective elements in the development of the knowledge. Knowledge can belong to the community, the clan, or the family. In indigenous communities, the family can be defined in many different ways according to the culture of the community. The community has systems of acquiring, possessing and sharing knowledge, specific to the respective cultural domain or areas (Leistner, 2004, p. 57).

The objects or cultural materials acquired by and managed in the CIs are knowledge artefacts that contain and convey representations of indigenous knowledge. Knowledge embedded in these artefacts can be explicit, tacit, or implicit in nature (Holsapple & Joshi, 2003). The knowledge can also be represented in other forms of sources; in the case of indigenous knowledge, most knowledge still resides in the minds of the knowledge holders. Embodying the knowledge in an object allows the knowledge to be shared and preserved, although not in totality. Managing knowledge of the ICH in CIs, and managing the process of acquiring the ICH, requires a different KM paradigm, as explained in the following sections.

The CI sector shares knowledge represented in knowledge objects or artefacts. However this is not sharing knowledge itself. The books, databases, museum displays, and all knowledge containers in these organizations, are representations

of knowledge which do not have the 'immediacy or energy' (McInerney & Mohr, 2007, p. 68) experienced during the actual knowledge sharing process: for example, the experience of witnessing a ceremony. The experience helps make sense of the knowledge that is being shared. Face-to-face interactions during the knowledge sharing process help to obtain or extract the explicit knowledge and the contextual meaning from the tacit knowledge.

2.6 Knowledge management in cultural institutions

Curating and managing the ICH, and involving the source communities in the CIs' safeguarding processes, create organizational knowledge for the CIs. In this part of the literature review, I discuss literature on the applicability of KM to CIs in the safeguarding of indigenous knowledge. Knowledge management (KM) is widely discussed in the literature relating to enterprise or business settings, but less so in the public sector (Massaro, Dumay, & Garlatti, 2015), although KM has been an integral part of public sector planning and strategies. Some authors (Massaro et al., 2015; Pee & Kankanhalli, 2016) have stressed the need to adapt to the context of public stakeholders and accountability in the adoption of KM by the public sector.

Knowledge that needs be managed is knowledge that is embedded, not only in the documents and reports, or in the processes and routines, but most importantly, in the people. People create knowledge by identifying and using data and circumstantial and contextual information which they will put into action by combining their experience, culture and values (Asrar-ul-Haq & Anwar, 2016; Baskerville & Dulipovici, 2006; Dollah. et al., 2015; Nazim & Mukherjee, 2016). Knowledge 'originates and is applied in the minds of "knowers"' (Baskerville & Dulipovici, 2006, p. 84).

Bringing KM into the CI context, Islam and Ikeda (2014) expanded the works of Awad and Ghaziri (2004) in their study on the issues of incorporating KM concepts into a digital-based library system. The concepts of KM they used are acquisition/ capturing, organizing/processing, refining/storage, transfer/disseminating, and

feedback/user response. These concepts are quite similar to information management in CIs, but are used in dealing with explicit knowledge, i.e. in knowledge made explicit in various knowledge containers, such as books, records and artefacts. Islam and Ikeda (2014) stressed KM in their study is focused on the 'business, human-centric and deals with the tacit and explicit knowledge' (Islam & Ikeda, 2014, p. 148) of the process of building a digital library.

Meeting the changing expectations and internal demands of the users of CIs — people who neither need nor care to understand the differences between these institutions — will require information professionals to shift their own mind-sets to a world where the library, archives, or museum in the everyday life of the user is more important than the user in the life of the institution (Marty, 2014, p. 619). Marty called upon cultural institutions to make a shift in their philosophy to focus on the role these institutions play in the everyday lives of the users. With these changes, CIs require new ways of providing services.

The International Federation of Library Associations and Institutions (IFLA), an international body that looks after the interests of libraries and information services and their users, has a working definition of knowledge management:

> a process of creating, storing, sharing, applying and re-using organisational knowledge to enable an organisation to achieve its goals and objectives. KM is extending the concept of "knowledge" beyond existing concepts like "memory", "storage", and "information". The term covers such areas as tacit knowledge (expertise), implicit knowledge, explicit knowledge and procedural knowledge. (IFLA, 2017)

Tise and Raju (2016), in exploring the synergies between knowledge management, open access and knowledge economies, emphasized maximizing the application and re-use of knowledge, especially internal knowledge in an organization. Such internal knowledge is derived from the organization's practices of capturing, organizing, sharing and promoting internally-generated knowledge for the organization's growth and development.

Where library operations are concerned, Sarrafzadeh, Martin, and Hazeri (2010) found that for many libraries, KM is nothing new. However, the major difference

between librarianship and KM is in the people approach. Knowledge management is a 'people-centred' concept (Sarrafzadeh et al., 2010, p. 208), where the people's skills and concepts are the most important asset of an organization (Islam & Ikeda, 2014; Lux, 2016). The people working in the CIs are 'not only knowledge users but also knowledge resources and knowledge generators' (Sarrafzadeh et al., 2010).

Libraries' and other CIs', e.g. archives' and museums', main focus has been on information management of objects, i.e. collecting of explicit knowledge, organizing, and disseminating recorded information (Islam & Ikeda, 2014). However, knowledge management concerns the knowledge created or derived from the human activities, procedures and processes in managing information for customer consumption. Balagué, Düren, and Saarti (2016) claimed that studies on KM implementation in libraries are still limited, and mostly focused on academic libraries, which most often involve technology-assisted KM (Islam & Ikeda, 2014; Jain, 2014; Marouf, 2017; Nazim & Mukherjee, 2016).

Marouf (2017) undertook research on academic library readiness for KM, and stated that libraries, like other organizations, can benefit from KM initiatives. However, the implementation of these initiatives requires the top management's commitment to creating an organizational culture of trust and knowledge sharing. Knowledge sharing is identified as the most important of KM processes, as knowledge that is not shared and managed disintegrates easily (Asrar-ul-Haq & Anwar, 2016).

Lux (2016) discussed the applicability of KM in public libraries. Public libraries provide access to their collections to and through a network of other library resource providers, e.g. university libraries, databases, and digitized archives. Along with strong, ubiquitous information and communication technology, including the advent of disruptive technologies (Fonseca, 2014), users' needs have grown. Moreover there is a need for more knowledge embedded in the librarians, on how best to meet the user demands amidst the plethora of information sources, and the processes have to be shared within the public library team. Lux is

of the opinion that KM is the key to managing these new challenges especially for those widespread library campus locations and connections, in building towards streamlined services to the public.

According to Lux, the areas of importance in public libraries that can be considered for KM are: knowledge in collection development, acquisition, processing, reference work, activities and programmes, which comprise a mixture of tangible and intangible knowledge important for effective running of the organization. KM can be considered in public libraries only when the public library managers can identify and actively distribute their professional experience in their institutions, and organize and manage it in a structured manner.

> Professional knowledge leaves with people, if it is not managed well... [and] there is clear difference between knowledge of individuals and knowledge embedded in organizations, like processes and procedures that are needed to sustain the library and support its functions. (Lux, 2016, pp. 183-184)

KM reflects processes and procedures that need to be documented and also the intangible knowledge embedded in the practices of staff in public libraries.

These are general applications of knowledge management in the CIs.

In the following section, as I am looking to understand the process of knowledge sharing between the indigenous people and the CIs, I highlight relevant literature about knowledge sharing, the boundaries of knowledge sharing and spanning the boundaries.

2.6.1   Knowledge sharing

In an earlier section, I highlighted literature on indigenous knowledge, and how the indigenous people share their knowledge. In this section, I cover literature on knowledge sharing in the enterprise setting.

In a systematic review of more than 60 research publications published between 2010 and 2015 on KM, specifically on knowledge sharing in organizations, Asrar-ul-Haq and Anwar (2016) identified the antecedents and barriers to knowledge sharing. Regarding antecedents, the most important determinant for knowledge

sharing is interpersonal trust. Next is the extrinsic and intrinsic motivation or reward for sharing knowledge, and also the predictors of knowledge sharing behaviours. The organizational structure and the social relations between individuals' networks in the organization are also factors that motivate knowledge sharing in organizations. The culture of the knowledge-centred organization facilitates individuals' willingness and openness to communication and change, which makes it easy to transfer and share knowledge.

Research findings in enterprises over the last fifty years show that knowledge sharing, besides the traditional use of storytelling, also occurs through mentoring, lectures, conversations, writing, and active participation in communities of practice, and is most often enabled by information and communication technologies (McInerney & Mohr, 2007; Nonaka, 1991). Knowledge sharing, a component of KM, focuses on the relationships and synergy between people in an organization or between organizations (Ipe, 2003; McInerney & Mohr, 2007).

All entities possess tacit knowledge, making it ubiquitous, and tacit knowledge is transferred ubiquitously through apprenticeships, personal interactions, and conversations. Attempts to transfer tacit knowledge are present both in enterprise organizations and in indigenous communities. Some writers contend that success in the sharing of such knowledge, however, depends on the culture of the organization and the culture of the society (Al-Alawi, Al-Marzooqi, & Mohammed, 2007; Hart & Warne, 2008; McInerney & Mohr, 2007). Research shows that trust and attitudes towards knowledge sharing are important factors that affect the sharing of knowledge in an organization (Fleig-Palmer & Schoorman, 2011; Mooradian, Renzl, & Matzler, 2006; Usoro & Kuofie, 2008).

Individuals in an organization are the holders of knowledge, and they are the main component in the link between knowledge acquisition and creation. Interactions between these individuals contribute towards further creation of knowledge. The literature contains many articles that focus on knowledge sharing by individuals in business organizations (Casimir, 2012; Cyril Eze, Guan Gan Goh, Yih Goh, & Ling

Tan, 2013; Gagné, 2009) and to a lesser extent by individuals in public sector organizations (Titi Amayah, 2013).

2.6.2   Knowledge boundaries

In knowledge sharing and collaborative work, understanding a knowledge boundary can assist or hamper knowledge sharing between different entities and functions, whether in an organization, or between different organizations (Carlile, 2002; Chu & Lee, 2014; Peng & Sutanto, 2012; Tushman & Scanlan, 1981). Using Hawkins and Rezazade's (2012, p. 1802) description, a 'knowledge boundary presents the limit, or border of an agent's knowledge base in relation to a different domain of knowledge'. A knowledge boundary, therefore, is not knowledge itself but a limit or border of someone's knowledge, and is said to exist when it limits the movement of knowledge from one domain to another. This boundary can exist in the knowledge process, or knowledge containers, organizational culture, and even in people.

Hawkins and Rezazade (2012) iterated that knowledge boundaries are permeable enough to allow resources in, but organizations also build and create boundaries to limit knowledge sharing across communities of knowledge. A boundary can be a 'demarcation line' (Leifer & Delbercq, 1978, p. 41) or can mark the limits of an area or a discipline. Palus, Chrobot-Mason, and Cullen (2014, p. 209-210), in their research on boundary-spanning leadership, identified the five most challenging boundaries: vertical boundaries, which reside in levels of hierarchy; horizontal boundaries, which exist across the working units and functions; stakeholder boundaries, which are the external environment or customers of the organization; demographic boundaries within the organization, i.e. the people who work in the organization; and finally geographic boundaries, which are the different locations of collaborators. Williams (2002) states boundaries can be jurisdictional, organizational, functional, professional or generational. These boundaries are well defined in organizational or enterprise settings, but not in the indigenous knowledge setting.

The complexities of knowledge sharing also happen at functional boundaries, i.e. Carlile's (2004) functions of transferring, translating and transforming knowledge, as well as other types of boundaries as mentioned by Palus et al. (2014) and Peng and Sutanto (2012). Knowledge boundaries will surface in any knowledge situation, i.e. when knowledge is being transferred, translated, or transformed. These boundaries are where organizations possess 'specializations of different kinds of knowledge' (Carlile, 2002, p. 442). With such specialization, Fox (2011) gives examples of boundaries that may arise between specialists and non-specialists, and between manufacturers and users; boundaries depend on the practices, for example, between the innovators of products and the sales team, or between professionals such as technical designers of clinical equipment and the medical staff. In this study, I am trying to discover the boundaries in indigenous knowledge sharing.

Carlile's conceptual model of knowledge boundaries categorizes them into three types: syntactic, semantic and pragmatic. Each boundary has its own knowledge complexities, and if not identified, slows or obstructs knowledge movement. I have chosen to use Carlile's model as it fits with the sharing model of spanning, which according to Hsiao, Tsai, and Lee (2012, p. 465) 'considers knowledge as cognition', i.e. where one has to run through a process by which cognition and intellect are developed.

Carlile (2002, 2004) describes the relational properties of knowledge at a boundary in terms of difference, dependence and novelty. The difference in knowledge at a boundary refers to the amount and type of knowledge accumulated due to the levels of experience of the staff, taxonomy, equipment and incentives which are unique in a specialized field. The dependence of knowledge at a boundary is where there is interdependence between knowledge sharing activities and the actors to carry out the activities in order to achieve the goals set. More dependencies require more actors, which also increases the efforts to share and assess the knowledge at the boundary.

The novelty property of knowledge at a boundary refers to situations when an actor 'is unfamiliar with common knowledge being used to represent the differences and dependencies between domain-specific knowledge' (Carlile, 2004, p. 557) and the interplay of these characteristics at the boundary commands the type of approach when the organization is faced with one or more boundaries during knowledge transfer or sharing (Carlile, 2004). Specialized knowledge, which is embedded, localized and invested in practice tends to produce more knowledge boundaries as the level of novelty or uniqueness increases (Levina & Vaast, 2014).

In Carlile's (2004) conceptual model there are three types of boundaries and three different approaches to managing these boundaries:

Table 1   Knowledge boundaries adapted from Carlile (2002)

Boundaries	Approaches
Syntactic boundary	Transferring knowledge or information processing approach
Semantic boundary	Translating or interpretive approach
Pragmatic boundary	Transforming approach

(i) A syntactic boundary is where the boundary requires common and shared meanings where relationships between the differences and dependencies of the knowledge are identified and agreed to. In this approach, transferring of knowledge requires standard formats and terminologies. Although a common register of terminology is necessary, this might not be adequate to share and assess knowledge at a boundary (Carlile, 2004, p. 443).

(ii) A semantic boundary arises when a novelty or a cognitive difference in the knowledge surfaces when terminologies in the syntax have different meanings to different users, and requires mediation or collaboration between two parties to translate and interpret, so as to come to a

common understanding or compromise. In this scenario, knowledge to be shared and assessed requires constant agreements between the parties involved (Carlile, 2004, p. 444).

(iii)   A pragmatic boundary exists where differences in the knowledge, due to differences in the opinions of different users – which are embedded and localized – need to be resolved and translated, thus producing or transforming into new knowledge. Transforming knowledge requires immense practical and political efforts (Carlile, 2004, p. 445).

In summary, overcoming and collaboration across boundaries require clear communication, and at each of these boundaries, a boundary spanner needs to identify how to share the knowledge. For instance, at a syntactic boundary, the transfer of knowledge is achieved by creating standards to ensure that there are shared meanings where the relationships and dependencies of the knowledge have been identified and common meanings agreed on. At a semantic boundary, a common glossary or lexicon is required for the language used in that discipline. A pragmatic boundary requires negotiations with the parties concerned to transform multiple knowledge areas into common interests (Hsiao et al., 2012).

2.6.3   Boundary spanning

In order to address these boundaries, boundary-spanning activities or cross-border interactions are called for and are widely mentioned in the literature. Nair and Tandon (2015) in their study on social enterprise in relation to the marketing field stated that boundary spanning activities are 'interactions between the boundary spanners and their consumers or whoever they work with, to shape a shared common platform to exchange knowledge and engage with each other, often involving the use of boundary objects' (Nair & Tandon, 2015, p. 137).

Levina and Vaast (2014) stated that in developed societies generally, boundary spanning occurs when there are differences in practice. They affirmed that formal positions in the organization, procedures, and standards are being used to

represent associations and interactions of different personnel in doing the practices continuously. It is the extent of uniqueness in the situation that demands the type of boundary spanning decision by the boundary spanner. As such, the nature of boundary spanning activities is anchored on the extent of uniqueness (Levina & Vaast, 2014) which calls for Carlile's types of boundary spanning approach: the lower the level of complexity, which requires common meanings and translations, the easier it is to span the boundary. However, the more levels of uniqueness or complexities in the knowledge, the more converting or changing the knowledge is required to suit the understanding of every party in the collaboration.

Literature on boundary spanning describes those individuals, as well as organizations, responsible for the smooth flow of knowledge over boundaries, and known as boundary spanners (Conklin, Lusk, Harris, & Stolee, 2013; Cranefield & Yoong, 2007; M. Meyer, 2010; Morrison, 2008; Paul Williams, 2002).

According to Leifer and Delbecq (1978) boundary spanners are 'persons who operate on the periphery of the organization, performing organizational relevant tasks, relating to the organization, with elements outside it' (Leifer & Delbecq, 1978, p. 41). Boundary spanners move knowledge around and create connections between groups that carry out knowledge transactions (Meyer, 2010). They facilitate the sharing of expertise by linking several groups of people or practitioners separated by different types of boundaries (Long, Cunningham, & Braithwaite, 2013). They link the people with the know-who, know-how and know-why, translating these types of knowledge – from one world to another – for the intended groups, both in the public and private domains.

Cross and Prusak (2002) described them in their study as the role players in the organization. Cross and Prusak found boundary spanners, regardless of their positions or affiliations in the organization, work together with other individuals from different departments in the organization, by guiding and consulting with the other individuals. As 'roving ambassadors' (Cross & Prusak, 2002, p. 9) they

move, 'cross, weave and permeate many traditional boundary types, including organizational, sectorial, professional and policy' (Williams, 2012).

Morrison (2008) agrees with Cross and Prusak, that boundary spanners need to have several characteristics, e.g. a high level of absorptive capacity, i.e. the breadth of intellectual capacity that can translate and ingest important and meaningful information for their colleagues.

Boundary spanners also require high relational capacity, with a wealth of social contacts and good connections to internal information resources, both from internal as well as external sources, including multiple channels of sources. They also need to have the personality traits that are acceptable to a vast number of different groups, as they take up tasks and responsibilities that cut across formal boundaries of the organization. 'Boundary spanners have important roles to play in situations where people need to share different kinds of expertise, e.g. creating strategic alliances or in developing new products' (Cross & Prusak, 2002, p. 9).

Meyer (2010) observed that these boundary spanners conduct their boundary spanning at knowledge boundaries in their practice. Thus, they bridge the gap between knowledge and the use of it. Meyer (2010) described them as individuals or organizations that assist in knowledge sharing, creation and use. They are the 'knowledge interface' (Cranefield & Yoong, 2007) for the organization, and they create and maintain links between the creators and users of knowledge. They not only move, but also help to transform, the knowledge. Transforming knowledge requires the boundary spanners to translate and interpret the knowledge to assist in its use, thus creating a new kind of knowledge, which Meyer labelled 'brokered knowledge'. Cranefield and Yoong (2007) found the most significant role of the boundary spanners in their study was that of interpreter and translator, important elements in the successful transfer of knowledge. Their deep understanding of the knowledge makes it possible for them to communicate their interpretation of their knowledge.

In a later work, Haas's (2015) review of more than 100 literature sources provided new sets of definitions for boundary spanner, gatekeeper and knowledge broker.

These three roles support transfer and integration of knowledge crossing organizational boundaries. Acquiring external knowledge has impacts on an organization's performance and innovation. This external knowledge can be from outside the organization's boundaries, or within the organization but from different groups or sectors in the organization. Haas defined boundary spanners as links between a unit and its environment, exchanging information and having access to resources and inter-unit coordination. A boundary spanner must have the qualities of professionalism, a good network of social contacts, and the personality traits considered acceptable by other groups.

Haas (2015) categorized gatekeepers as a sub-group of boundary spanners, whose main role is to 'monitor the environment, acquire, transfer and sometimes diffuse information from inside the organization or group' (p. 1036). According to Haas gatekeepers can be individuals, organizations, groups and technologies. Gatekeepers and boundary spanners belong to one of the groups they link. Haas found strong similarities between gatekeepers and boundary spanners, but the scope of action for boundary spanners is larger. Knowledge brokers, on the other hand, do not belong to any of the groups they span, but they play the role of intermediaries or liaisons, as 'their practices contribute to knowledge diffusion as they interpret, translate and recreate knowledge' (p. 1037). Knowledge brokers can be individuals or organizations linking two or more groups, and crossing organizational borders to gather and disseminate information and knowledge.

In the next section, I highlight the external influences that affect the CIs in the management of indigenous knowledge: firstly, the main global instruments which I see as important for CIs, i.e. The United Nations *Convention for the Safeguarding of the Intangible Cultural Heritage (CSICH) 2003 (UNESCO, 2016),* and intellectual property issues of indigenous knowledge by the World Intellectual Property Organization (WIPO, 2016); and secondly, the post-colonial and post-custodial movements in heritage management. These external influences have a bearing on the CIs' safeguarding processes.

2.7   External influences on the safeguarding of Intangible Cultural Heritage

The two main international bodies in relation to indigenous knowledge and ICH related to my study are: (i) United Nations Educational, Scientific and Cultural Organization (UNESCO) with its *Convention for the Safeguarding of Intangible Cultural Heritage (CSICH) (2003)*, focusing on safeguarding ICH, and (ii) the World Intellectual Property Organization (WIPO), highlighting the importance of intellectual property of indigenous knowledge and ICH.

2.7.1   UNESCO *Convention for the Safeguarding of Intangible Cultural Heritage (CSICH) 2003*

UNESCO acknowledges the importance of culture in the realization of sustainable development and peace.

> The practices, representations and skills sustained by cultures constitute major contributions to education, resource management, risk management and democratic governance. Intangible cultural heritage provides access to the memory of peoples, it is a living source where responses can be found to the challenges of peace and sustainable development (UNESCO, 2016, p. v).

It is imperative that I highlight the UNESCO *Convention on Intangible Cultural Heritage* (2003), in relation to the role undertaken by the CIs in safeguarding ICH. Underlying the goals of my study, I quote three of the purposes of the *Convention*, i.e.:

(a)   To safeguard the intangible cultural heritage;

(b)   To ensure respect for the intangible cultural heritage of the communities, groups and individuals concerned;

(c)   To raise awareness at the local, national and international levels of the importance of the intangible cultural heritage, and of ensuring mutual appreciation. (UNESCO, 2016)

In Section 1.7, I provided The *Convention's* definitions of intangible cultural heritage.

As can be understood from the definition, and in Sarawak's situation, the CIs are very much involved in the collection and management of the 'materials' that contain or bear ICH, the artefacts or material culture, the books written about them, and other formats of information 'containers'. CIs, such as libraries, archives and museums are also called 'collecting institutions' by some researchers (e.g. Batt, 2015; Christen, 2011; M.Nakata et al., 2014; Robinson, 2014, 2016).

These cultural institutions also perform safeguarding measures. I have also provided the definition of safeguarding in Section 1.7. It is interesting to note that the Convention stresses the important roles of the State in safeguarding the ICH of its people, and Article 13 of the *Convention* indicates that the State Party has to:

> (b) Establish or designate one or more competent bodies for the safeguarding of intangible cultural heritage present in its territory
>
> (c) Foster scientific, technical and artistic studies, as well as research methodologies, with a view to effective safeguarding of the intangible cultural heritage, in particular the intangible cultural heritage in danger;
>
> (d) Adopt appropriate legal, technical, administrative and financial measures aimed at:
>
> > (i) Fostering the creation or strengthening of institutions for training in the management of the intangible cultural heritage and the transmission of such heritage through forums and spaces intended for the performance or expression thereof;
> >
> > (ii) Ensuring access to the intangible cultural heritage while respecting customary practices governing access to specific aspects of such heritage;
> >
> > (iii) Establishing documentation institutions for the intangible cultural heritage and facilitating access to them. (UNESCO, 2016, pp. 9-10)

In the context of my study, the components in Article 13 apply to cultural institutions, especially those that were being established by the State Civil Service of Sarawak. In line with the post-colonial movement in heritage institution management, the *Convention* addresses the importance of the participation of

the source communities, where in Article 11(b), it asserts that each State Party shall:

> Among the safeguarding measures referred to in Article 2 paragraph 3, identify and define the various elements of the intangible cultural heritage present in its territory, with the participation of communities, groups and relevant non-governmental organizations. (UNESCO, 2016, p. 9)

And in Article 15:

> *Participation of communities, groups and individuals*
>
> Within the framework of its safeguarding activities of the intangible cultural heritage, each State Party shall endeavour to ensure the widest possible participation of communities, groups and, where appropriate, individuals that create, maintain and transmit such heritage, and to involve them actively in its management. (UNESCO, 2016, p. 10)

The *Convention* came into effect in April 2006 (Kurin, 2007). The *Operational Directives* for implementing the *Convention* have been improved and enhanced (versions 2008, 2010, 2012, 2014, latest 2016) to address comments and critiques on the applicability and challenges of implementing the intentions of the *Convention* (Boswell, 2011; Denes et al., 2013; Kurin, 2004, 2007).

Kurin (2007) pointed out that the safeguarding of ICH, according to the *Convention*, essentially lies in the source community, the knowledge bearers and the ICH users and practitioners. Thus, the eight safeguarding measures mentioned in Article 2 (3), i.e. the identification, documentation, research, preservation, protection, promotion, enhancement, transmission, are not effective without the involvement and participation of the source communities.

For example, Denes et al. (2013) presented four field sites in Northern Thailand that were engaged in the 'revitalization of local history and cultural heritage' (p. 10). A socio-cultural calendar and community mapping were initially used to identify intangible practices and traditional expressions. This was further enhanced by the use of participatory cultural mapping to widen the understanding of living knowledge embedded in the local context. The authors argued that the ICH of the source community can be identified, listed and

classified into themes or categories, but ICH cannot be 'atomised and separated from the local particularities of cultural landscape and historical context' (Denes et al., 2013, p. 12).

This argument agrees with an earlier statement by Kurin (2007) that the connections of ICH to the larger environment entail multi-layered complexity that cannot be reduced or simplified by identifying the elements and listing them for safeguarding. However, as mentioned earlier, the *Operational Directives (OD)* evolved over the years, taking into account the issues raised by researchers and implementers.

The latest version of the *Convention* includes the 'Ethical Principles for Safeguarding Intangible Cultural Heritage' (UNESCO, 2016, p.113-114), complementing the *Convention* and the *Operational Directives*. The main intention of these Principles is to provide a basis for the development of a code of ethics adaptable at local and sectorial levels, where the roles of and respect for the source communities are central in the safeguarding of ICH (Jacobs, 2016). These ethical measures attempt to address critiques from researchers and implementers of the *Convention* with regard to the roles of the institutions with the source communities.[2]

This *Convention* stresses the importance of the source community, providing me with the impetus in my research to acquire the 'voice' of the source community on the nature of their knowledge, and how they share their knowledge.

Malaysia ratified the Convention in 2013. However, Malaysia had already introduced the *National Heritage Act, 2005* ("Akta Warisan Kebangsaan," 2005) which includes provisions for safeguarding both tangible and intangible heritage, including underwater heritage. The National Heritage Department was established in 2006 'with the responsibility of preserving, conserving, protecting and promoting the rich treasures of Malaysian heritage' ("Jabatan Warisan

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[2] *On 23 July 2013, Malaysia deposited with the Director-General i instrument of ratification of the Convention for the Safeguarding of the Intangible Cultural Heritage.*
http://portal.unesco.org/en/ev.php-
URL_ID=49130&URL_DO=DO_TOPIC&URL_SECTION=201.html

Negara," n.d). Sarawak has the *Sarawak Cultural Heritage Ordinance (*1993*)* which focuses heavily on tangible culture, such as antiquities, historical objects, and archaeological sites. The *National Heritage Act* (2005) addresses the gap in the provisions for intangible heritage in Sarawak.

Interestingly, Malaysia has only one ICH 'inscribed' by UNESCO into the 'Masterpieces of the Oral and Intangible Heritage of Humanity before the entry into force of the Convention', in 2008, and this was *Mak Yong* Theatre ("Jabatan Warisan Negara.," n.d). *Mak Yong* is a performance art, originating from the Malay communities of the villages of Kelantan, on the east coast. For ICH to be listed by UNESCO, a culture has to be nationally listed first. Malaysia is a nation of 14 states, with a multi-ethnic population, and a state such as Sarawak has its own groups of indigenous people. The National Heritage Department has a massive task of identifying and inventorying Malaysia's ICH before UNESCO can accept and list the ICH, as per the requirement specified in the Convention.

Inventorying, according to Kuutma (2013) raises several issues, such as prioritizing ICH, the selection processes, the authority of the selecting agents, meeting the agenda of external forces rather than being community-initiated, as well as the involvement and consent for inventorying by the communities. Although the Convention provides guidelines to address these issues, the fact that 'the politics of representation and decision-making happen to favor particular social groups' is unavoidable (Kuutma, 2013, p. 26).

2.7.2 World Intellectual Property Organization (WIPO)

The World Intellectual Property Organization (WIPO), established in 1967, is a body under the United Nations, with 189 members[3], focusing mainly on intellectual property matters. It has an Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore

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[3] *Malaysia has been a member since 1989.*
http://www.wipo.int/members/en/details.jsp?country_id=124. Accessed 10 Mar 2017

(IGC), and is still in the process of drafting an international legal instrument on intellectual property and traditional cultural expressions.[4]

WIPO has published materials related to intellectual property protection of ICH, but for the purpose of my study, I have selected the three most relevant documents (Torsen & Anderson, 2010; WIPO, 2012a, 2016). They are related to the documentation and protection of traditional knowledge and also the roles of museums, libraries and archives in the intellectual property challenges of documented ICH. My study is not focused on the intellectual property aspects of indigenous knowledge, but I used WIPO's literature to reiterate that although most researchers/scholars argue that documentation will never be able to capture the knowledge in its entirety, e.g. Masango and Nyasse (2015), documentation is an unavoidable means of preservation and safeguarding indigenous knowledge.

WIPO 'does not promote documentation of TK and traditional cultural expressions (TCEs) as such' (WIPO, 2012a, 2016) as documentation includes all activities of 'identification, fixation and classification aimed at facilitating retrieval from organised data sets such as files, digital databases and archives and libraries' (WIPO, 2016). Retrieval for access and use of the documentation do have challenges for CIs. However, WIPO acknowledges the valuable purposes of documentation, amongst which are the safeguarding and preservation of ICHs and TK from extinction, the protection of secret and sacred TK and ICHs, research and development, and defensive and positive intellectual property protection of ICHs and TK.

WIPO makes a distinction between 'protection' and 'safeguarding' or 'preservation'. Aligned with UNESCO's CSICH, preservation and safeguarding in the context of cultural heritage refer generally to the identification, documentation, transmission, revitalization and promotion of tangible or intangible cultural heritage in order to ensure its maintenance and viability.

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[4] *The IGC 34 meeting took place from June 12 to 16, 2017. The 'next draft of an international legal instrument on intellectual property and traditional cultural expressions was developed'*

http://www.wipo.int/tk/en/news/igc/2017/news_0006.html. *Accessed 6 Feb 2018*

Protection, in WIPO's context,

> may thus include safeguarding against loss through archiving, documenting and recording. It may mean acknowledging and giving effect to the broader range of collective and individual rights that are linked to TCEs and their cultural and legal environment. Finally it may also mean building capacity to support traditional creativity and the communities and social structures that sustain and express them. (Torsen & Anderson, 2010, p. 18)

WIPO acknowledges documentation as part of a broader intellectual property strategy for IK protection and preservation. WIPO is in agreement with UNESCO that the importance of the source community's participation, i.e. they should play a central role in the documentation to acknowledge and recognize their rights and needs as knowledge holders, and that their indigenous knowledge is embedded in their ways of living and traditions.

Documentation of indigenous knowledge has been collected and deposited in CIs, and WIPO recognizes the invaluable roles of these CIs in the preservation, safeguarding and promotion of this documentation which is in various formats such as images, sound recordings, films, and now more often in digital formats. Access and use of this documentation brings intellectual property challenges, and these raise the necessity for the CIs to establish sustainable collaborations and links with the source communities (Torsen & Anderson, 2010).

The next section highlights the second influence on the management of indigenous knowledge in CIs, i.e. post-colonization heritage management.

2.8   Indigenous voices, post-colonization and decolonization in cultural institutions

Cultural institutions were tools of colonialism (Genovese, 2016; Onciul, 2015; Paquette, 2012), and the foundations for the management of the CIs were influenced by colonialism and imperialism (Genovese, 2016; Hedstrom & King, 2004). With strong international governance frameworks such as the UNESCO CSICH 2003 supporting the importance of safeguarding ICH and the importance of

participatory involvement of the source communities, the United Nations *Declaration on the Rights of Indigenous Peoples* (UN, 2008), and WIPO on intellectual property protection of indigenous knowledge and ICH (Janke & Iacovino, 2012; von Lewinski, 2008), there are growing discussions in the literature on the need to incorporate indigenous voices (Onciul, 2015) or participatory involvement of the source communities in the CIs (Christen, 2011; K. Christen, 2015; Genovese, 2016), as part of the decolonization movement. In this section, I highlight this movement.

2.8.1   Post-colonization heritage management

While it is not within the parameters of my study to discuss the political context, it is unavoidable that I mention the decolonization of CIs' management, in light of the above international frameworks.

Paquette (2012), based on literature in the political sphere, stated that decolonization happened in two waves: the first wave or first generation was the rejection of colonial powers in the 1950s and 1960s which mostly happened in Asia and Africa, where the colonialists departed the countries they colonized, but left a legacy of colonial administrative and governance structures. The first wave of the post-colonial approach was aimed at 'local empowerment, economic prosperity, and state modernisation' (Paquette, 2012, p. 129) resulting in self-determination and independence.

The second wave, starting in the 1990s, focussed on the autonomy and self-determination of indigenous groups mainly in countries such as the United States, Canada, Australia and New Zealand. In these countries, migrant colonialists co-exist with the indigenous population. Here, 'Western institutions have delegitimized aboriginal society, viewing it as a way of living from the distant past' (Paquette, 2012, p. 130) with the 'indigenous populations being minorities' (Smith, 2012, p. 74). This co-existence brought about the complexity of multicultural societies, with different experiences of colonialism and different opportunities for decolonization (Smith, 2012).

Paquette stressed the most characteristic aspect of the second wave of decolonization is the incorporation of indigenous knowledge into administrative practices and processes. He cited the Museum of New Zealand Te Papa as an example where bicultural heritage administration and governance involves the inextricable linkages between the settlers and the indigenous population. The challenge of these decolonizing practices requires the professionals working in such an organization to balance their professional standards with knowledge on the protocols of the indigenous people they work with, and incorporate the protocols into their administration procedures and processes (Morse, 2012; Paquette, 2012; Roy, 2015).

While conducting this literature review, I found an interesting phenomenon: that in the literature from the so-called 'second wave of decolonization', the indigenous minority nations (in New Zealand, Australia, United States and Canada) are 'vocal' and strong. While advocating documentation as one of the ways to preserve and safeguard ICH, and also a way of decolonizing projects (Smith, 2012), there are also strong advocates for more active and inclusive participation of the source communities. However, interestingly, these nations initially did not ratify the United Nations *Declaration of the Rights of the Indigenous Peoples* (Hanson, n.d.; Lilley, 2016; Onciul, 2015; UN, 2007) on the grounds that 'their track records in upholding human rights, including the recognition of Indigenous rights within their own national governance systems, as a justification for their reluctance to endorse the UNDRIP' (Hanson, n.d, para.10). However, in 2009 and 2010, these nations supported the *Declaration.*

2.8.1.1 Examples of documented Protocols for community engagement – Australia, United States and New Zealand

As an example of Australia's claim to have a commitment to upholding human rights, Garwood-Houng and Blackburn (2014) wrote about the *Aboriginal and Torres Strait Islander Library Information and Resource Network (ATSILIRN) Protocols,* which were initially introduced in 1995, and further revised and enhanced in 2006 and 2012 respectively.

The *Protocols* are:

> intended to guide libraries, archives and information services in appropriate ways to interact with Aboriginal and Torres Strait Islander people in the communities which the organisations serve, and to handle materials with Aboriginal and Torres Strait Islander content (ATSILIRN, 2012).

Garwood-Houng and Blackburn (2014) believed the roles of the Protocols went beyond being a toolbox in the provision of library and information services, as they offer a 'path for reconciliation, a guide for community engagement and a means to develop cultural competence' in the libraries and archives in Australia.

Roy (2015) regarded the *Protocols* as the 'primary ground breaking document' for the archive and library communities, as they provided the impetus for the United States to develop 'a similar document by the First Archivists Circle, known as the *Protocols for Native American Archival Materials*' (Roy, 2015, p. 197). The *Native American Protocols* also call for enhanced collaborations between indigenous people and the CIs that hold indigenous materials, 'to build respect and reciprocity between non-indigenous archival institutions and indigenous communities (Genovese, 2016, p. 37). Genovese acknowledged that these Protocols, collectively, are rooted in post-colonial and post-custodial archival theory. The involvement of indigenous communities in CIs, as part of the decolonizing process, provides benefits beyond the management of indigenous material according to their sensitivity.

An earlier contribution reinforcing the concept of self-determination as part of the decolonization movement was *The Mataatua Declaration on Cultural and Intellectual Property Rights of Indigenous Peoples of 1993*, which was an outcome of the *First International Conference on the Cultural & Intellectual Property Rights of Indigenous Peoples*, held in New Zealand (Lilley, 2016; Roy, 2015). This Declaration recognizes the rights of the indigenous people to self-determination and being the exclusive owners of their cultural and intellectual property. The *Mataatua Declaration, ATSILIRN,* and the *Native American Protocols* were 'created for the use and access of representations of traditional cultural expressions' (Roy, 2015, p. 196).

2.8.1.2   Copyright of documented intangible cultural heritage

Indigenous knowledge is predominantly oral. In countries where written documentation was slow to develop, earlier documentation about indigenous people and their knowledge was undertaken by anthropologists, or researchers who were usually outsiders. Documentation produces intellectual property challenges, such as ownership of the intellectual property of recorded works, or access rights to works collected in CIs. Earlier documentation of indigenous people and their knowledge was often without prior informed consent of the people documented (Gilliland & McKemmish, 2012; Janke & Iacovino, 2012; Thorpe & Byrne, 2016). The concern now is about the management of copyright of that documentation about the indigenous people, held by the creator of the documentation, and not by the indigenous people (Russell, 2005; Vezina, 2016).

Documentation refers to efforts to make elements of cultural heritage tangible, 'either in the form of their collection, registration, recording, identification, digitization, accessioning, inventorying, cataloguing, transmission, presentation, display, dissemination, or other method' (Vezina, 2016, p. 93). Cultural institutions, while collecting materials created by others about indigenous people, are also involved in documenting indigenous knowledge, for example, creating displays and exhibitions, inventorying, and cataloguing, as these are amongst the essential tasks in the management of collecting institutions.

Russell (2005), along with other researchers, acknowledged the fragility and the living heritage of indigenous knowledge, and that creation and sharing of this knowledge happens within a cultural context, which is both performative and interactive. As mentioned in an earlier section, documentation can 'freeze' indigenous knowledge, which could also change it. The very nature of passing on the knowledge as in the oral culture of the source communities, through memories, storytelling and listening, is in itself rich in the dynamic nature of this knowledge.

2.8.1.3   *Participation of indigenous knowledge holders*

Russell (2005) questioned the 'indigeneity' of materials in CIs, especially in libraries and archives, because the materials collected in these institutions are often documentation of 'indigenous knowledge not *by* but rather *about* indigenous people' (Russell, 2005, p. 162 ,emphasis in the original). However, indigenous knowledge can be found in them and libraries and archives can facilitate the materials to become indigenous through reclamation processes, by collaborating and consulting the relevant source communities, who can 'add to records, correct information and in general offer alternate interpretations or context' (Russell, 2005, p. 168). Russell stressed libraries and archives should be aware of the importance of making every possible effort to 'consult with and obtain permission of the relevant community' on materials deemed to be indigenous knowledge.

As another example of participatory involvement of the indigenous people in CIs, Onciul (2015) presented four case studies through the engagement of First Nations Blackfoot communities in southern Alberta, Canada, through 'consultation, partnership, and co-ownership or community control'. In so doing, he attempted to 'provide a holistic view of engagement, from initial negotiations, to curatorial adaptations, co-created exhibits, institutional indigenisation, community employment and on-going relations after the completion of the project' (Onciul, 2015, p. 240). Relating to this part of Onciul's writing, knowledge on the holistic process of community engagement can be shared, and the cultural protocols required in community engagement can be made known to the museum, as part of continuous effort to maintain such relations.

Onciul also provided critical analyses of indigenous community engagement in museum and heritage practice, from engagement tracking and the relay of power negotiations, to the complex, fluid and unstable engagement processes in building museum-indigenous community relations. His findings reflect the risks and costs on the part of the participants, and that it 'is not as empowering or beneficial as current discourse often purports' as sharing power in the museum, in

efforts to decolonize and counter European perspectives on the indigenous people, is complex. However, Onciul affirms the necessity for community engagement, and argues that museums should continue to build and sustain relations with the indigenous communities, as he sees the important roles played by the museums in supporting efforts of decolonization, indigeneity, and 'survivance', i.e. the notion of 'beyond survival' which includes 'resistance, revival and living vibrancy' (Onciul, 2015, p. 5). Museums, by engaging meaningfully with the indigenous community, provide the opportunity for the indigenous voice to be heard, bringing forth community self-representation, the different views and deeper perspectives, experiences and understandings, 'for people to remember, practice and live their culture and share it on their own terms with others, whether this is done in museums, heritage sites within communities, or in combinations' (Onciul, 2015, p. 244). Onciul argued that these voices are necessary not only to decolonize historical records, but most importantly, 'to develop respect for, pride within, a community that has been the subject of abusive colonial policies and institutionalised racism' (Onciul, 2015, p. 239).

> Indigenous approaches to cultural practice and management should be supported and respected as distinct but equally valid, and potentially complementary, ways of maintaining cultural knowledge and material. Intangible cultural heritage needs to be honoured and balanced with the traditional privileging of tangible heritage by Western museology. (Onciul, 2015, p. 244)

UNESCO's CSICH stressed the necessity for cultural institutions to include indigenous people, and CIs are required to understand the indigenous approaches to cultural practices and management in order for these approaches to be practised in CIs.

2.8.2   Indigenous voices in knowledge organization

The post-colonization movement brings new challenges to the CIs. Libraries, archives and museums comprise a complex ecosystem of repositories, with each type of organization having its own standard knowledge organization systems for the purpose of systematic organization and retrieval of information containers.

One area of CI management that has been strongly affected by this movement is the knowledge organization of CIs' material holdings.

Knowledge organization systems, such as those used in libraries – e.g. Library of Congress Subject Headings (LCSH), Dewey Decimal Classification (DDC), and Library of Congress Classifications (LCC) – are mostly Western-centric (Hedstrom & King, 2004), and incompatible with ways of knowing that fall outside of these systems' limitations (Cherry & Mukunda, 2015; Gilman, 2006; Sandy & Bossaller, 2017). These systems limit and marginalize the knowledge systems of the indigenous people, as well as denying access to them, in itself another form of colonialism (Sandy & Bossaller, 2017).

Gilman discussed the inadequacies of these Western systems in providing descriptions and representations for indigenous knowledge, thus submerging and making indigenous knowledge inaccessible. In addressing the shortcomings of these systems, Gilman gave two examples of knowledge organization systems: one initiated by Canada – the Brian Deer Classification Scheme, and New Zealand Māori Subject Headings. The Brian Deer Classification Scheme, designed for the First Nations materials in Canada, was designed in the 1970s, and revised in 2013-2014 to achieve the flexibility of being applicable to other indigenous groups. It can also be used in small resource centres (Cherry & Mukunda, 2015), as exemplified by Swanson (2015) in implementing and adapting the classification system in a small cultural institute for the Cree people in Quebec, Canada.

New Zealand developed the Māori Subject Headings, Ngā Ūpoko Tukutuku (Lilley, 2015). Lilley stated that the construction of the thesaurus was based on the Māori views on 'how the universe, world and humankind were created'. These subject headings enabled the information professionals in New Zealand to augment the intellectual accessibility of Māori materials, which was not possible with LCSH. This, according to Lilley, is 'a powerful example of the valuable contribution that indigenous knowledge systems can make to western forms of cataloguing and classifications' (Lilley, 2015, p. 492).

In an earlier study of cultural heritage digital projects, Srinivasan and Huang (2005) introduced the concept of fluid ontologies to support digital museum architecture, which allow emergent and adaptive structures for knowledge representation. Their approach to creating fluid ontologies is through interactions with the museum participants, such as curator, contributor or visitor. These interactions reflect the priorities of the participants, enabling an ontology which is emergent and adaptive with inter-related categories, while respecting the sacredness and privacy issues of the contents (Haryani & Hamiz, 2014).

In the examples above, the critical point is the engagement and involvement of the indigenous people and other indigenous bodies in giving their ideas and input in the construction of the knowledge organization systems to represent the body of indigenous knowledge.

2.9   Summary of literature reviewed and gaps identified

In summary, the literature presented above indicates the 'conversations already happening' (Ravitch & Riggan, 2012) in areas pertinent to my study. Literature discussing indigenous knowledge provided a prior understanding of what and why indigenous knowledge is important to safeguard. However, it is also pertinent to understand the dimensions of Sarawak's indigenous knowledge too.

I provided the dimensions of knowledge in relation to my study and highlighted literature written on the role of the CIs in curating indigenous knowledge, and aspects of managing such knowledge in CIs.

A review of the literature on knowledge management in non-enterprise settings such as public service or not-for-profit organizations shows that it is limited (Lettieri, Borga, & Savoldelli, 2004; Massaro et al., 2015; Rathi, Given, & Forcier, 2014; Renshaw & Krishnaswamy, 2009), especially in cultural institutions. To my knowledge, there is limited literature on managing knowledge relating to safeguarding of ICH, especially on the process of source community involvement. The literature also covered the external, global factors such as the international

instruments and movements that have an impact on the CIs in safeguarding indigenous knowledge. It would be interesting to see how KM can help the CIs in managing the organization knowledge they created in safeguarding ICH.

Deriving from all the above, I present my conceptual framework in the following section.

2.10 Conceptual framework

Figure 1 Conceptual Framework of Safeguarding ICH

In developing my study, I created the conceptual framework based on the literature to get a deeper understanding of safeguarding ICH. In the Figure above, the top part shows the four concepts of my study, and the parts below them are the salient points informed by the literature.

The four concepts are:

(1) The nature of indigenous knowledge, which is mostly tacit, changing and at times sacred, affects the CIs' safeguarding processes.

(2) The indigenous knowledge holders, or the source communities. In safeguarding ICH, the consent, involvement and active participation of the indigenous people is crucial for the CIs to be able to carry out their organizational functions in safeguarding indigenous knowledge. In the introduction of this chapter, I stated there is a need to manage the CIs' organizational knowledge of safeguarding ICH, which includes the processes of involving the indigenous people.

(3) The roles of the CIs are to safeguard the ICH. The CIs are knowledge repositories, and for the purpose of this study, I focused on their function in identifying and acquiring indigenous knowledge as part of the safeguarding of that knowledge. However, the CIs for this study are from different communities of practice, e.g. each organization has a different focus on information containers, and works with different standards in knowledge organization.

(4) The influences affecting the CIs in safeguarding ICH. The CIs are influenced and affected by external environmental movements. Amongst them are the development of a global movement of post-colonial and post-custodial heritage management, and international instruments such as the *United Nations Convention for the Safeguarding of Intangible Cultural Heritage 2003*, as well as matters relating to intellectual property issues of indigenous knowledge advocated by the World Intellectual Property Organization.

The concepts of this preliminary framework informed me about the interpretivist perspective to use for my research, the methodological approach, my research strategy, the research design, the research processes that I took to gather and analyse my data, and the presentation of my findings.

These matters are discussed in more detail in the next chapter.

Chapter 3   *Research Approach*

3.1   Introduction

In this chapter, I focus on justifying the methodology I have used for my research, and the data collection and data analysis processes. The aim of my research was to explore and understand the knowledge sharing processes of the indigenous communities, and the issues associated with the safeguarding of intangible cultural heritage (ICH) by cultural institutions (CIs). I adopted an interpretivist paradigm in approaching the research questions, using narrative inquiry as my research strategy and qualitative research methods for data collection and analysis.

3.2   Research paradigm: Ontological, epistemological and methodological stance

A research paradigm is the basic set of beliefs that guide action (Guba & Lincoln, 1994). In determining the research paradigm for my study, I followed Guba and Lincoln (1994, p. 109) regarding a) the ontological question of what is the nature of reality; b) the epistemological question of what is the relationship between the knower and what can be known; and c) the methodological question of how to go about finding what is known. My research is situated in both the information systems and information management domains, and the three major paradigms related to these two domains are positivism, postpositivism and interpretivism (Becker & Niehaves, 2007; Pickard, 2013; Wildemuth, 2017a).

Positivist research, with the ontological stance of realism, i.e. the belief in a single truth that can be measured and studied (Denzin & Lincoln, 2011), assumes the phenomenon is independent of the variables and minimal human interpretation (Myers, 1997; Pickard, 2013; Wildemuth, 2017a). The epistemological stance of positivist research is total objectivity (Denzin & Lincoln, 2011) where the

investigator and the investigated are independent of each other. Methodologically, positivist research is predominantly quantitative (Pickard, 2013) although there are positivist approaches to qualitative research too (Myers, 1997).

Postpositivist research has critical realism as its ontological stance (Pickard, 2013) where there is belief in social reality but it is always inhibited by human imperfections. The epistemological stance of this type of research has achieving objectivity as the main goal, but it has to be verified externally (Pickard, 2013). Methodologically, postpositivism research uses mixed methods research (Pickard, 2013; Wildemuth, 2017a).

Interpretivist research generally tries to understand the matter under study through the meanings and contexts assigned by people, using language, sensemaking and shared meanings. This is the relativist ontological stance of interpretivism (Myers, 1997; Pickard, 2013; Wildemuth, 2017a) where 'realities are multiple, constructed and holistic' (Pickard, 2013, p. 13) and 'knowledge is produced through experiences from interactions with other members of societies' (Denzin & Lincoln, 2011, p. 103). Epistemologically, reality is socially constructed by the participants in a particular situation, with interaction between the participants and the researcher (Denzin & Lincoln, 2011; Pickard, 2013). Methodologically, the researcher interacts with the participants, and the data that can form the results of the research are subjective and usually qualitative (Myers, 1997; Pickard, 2013; Wildemuth, 2017a).

For my research, I took a relativist ontology stance, because I believe that one's understanding of reality is influenced by social, cultural and historical contexts. Interpretivism is my epistemological approach, as I consider both the participants and myself as a researcher to have played a role in the shared creation of meanings, shaped by our lived experiences. I used qualitative methods to gather my participants' subjective perceptions through their stories and perspectives to help generate knowledge for my study. These are further justified in the following sections.

3.3   The interpretivist perspective

In undertaking this research, I anchored it on the interpretivist position. In order to grasp the subjective meaning of social actions (Wildemuth, 2017a) involved in the safeguarding of indigenous knowledge by the CIs, it was imperative for me to understand the behaviour and interactions of both groups of participants. The meanings of social reality, inherently subjective, constructed by and from the viewpoint of the participants (Wildemuth, 2017a) were gathered from the participants being studied. This is in line with Patton (2002b, p. 52) who stated that through empathic introspection and reflection, the researcher focuses on knowing and understanding the meaning of human behaviour, and the context of the research participants' social interaction.

Gaining access to the participants' thinking through their stories and interpreting the gathered data from the viewpoint of the participants required me to understand and interpret their values and the underlying reasons for their actions in context, i.e. considering the time, place and purpose. In an interpretivist position, the richness of contextual understanding (Sarker, 2007) from the viewpoints of the participants is interpreted in a double-layered manner, that is, interpreting how the research participants view and interpret the world around them, and the interpretations on the part of the researcher, that can be put into a 'social scientific framework' (Bryman, 2008, p. 387).

Addressing the research questions required an understanding of the complex inter-play of knowledge sharing events and processes, i.e. the knowledge sharing practices of the indigenous communities, the methods used by the CIs to acquire and safeguard the indigenous knowledge from the indigenous communities, and the interaction of knowledge sharing practices between these two categories of participants.

Thus, by approaching the research from the interpretivist perspective I have been able to fulfil my main aim of exploring and understanding the knowledge sharing issues associated with the culturally sensitive acquisition and management of ICH

by the CIs. The interpretivist approach has also allowed me to understand knowledge sharing of the indigenous people, and in non-profit organizations such as the CIs.

3.4 Methodological approach

A methodological approach involves how a researcher acquires the knowledge of the phenomena he or she seeks to understand (Adam, 2014; Denzin & Lincoln, 2011). Qualitative research aims at developing an understanding (Sarker, 2007) of a phenomenon. Since my focus is to interpret and understand, I chose a qualitative approach to data collection that would allow me to examine and understand knowledge sharing between the CIs and the indigenous people, including the intra- and inter-organizational KM for managing indigenous knowledge. Using a qualitative approach for this study allowed me to examine the participants' knowledge, the latent meanings of knowledge sharing practices and the participants' viewpoints, which were emphasized in the spoken and written words. Data derived from interviews with the participants provided me with a better understanding from the perspectives of the indigenous people on their knowledge, and from the perspectives of staff from the CIs on the safeguarding of ICH given by the indigenous people.

Polkinghorne (2005) stated that qualitative research is 'aimed at describing and clarifying human experience as it appears in people's lives'. Using qualitative research methods, my research is an inquiry to help me to understand the complexities of the phenomena from the participants' perspectives. The social experience of the research participants contains meanings for them. They 'act on the basis of the meanings that they attribute to their acts and to the acts of others' (Bryman, 2008, p. 16).

3.5   Research Strategy – Narrative Inquiry

Narrative inquiry elicits stories that allowed me to focus on understanding the experience of the indigenous people in sharing their indigenous knowledge and of the CI staff in the acquisition and safeguarding of that knowledge. Narrative inquiry emphasizes the interpretation and context (Patton, 2002a) and is in line with my study's interpretivist epistemological stance. The flexibility of narrative inquiry as a methodology, borrowing methods and forms from other methodologies, fits in with Denzin and Lincoln's (2011) description of putting together 'sets of representations that are fitted to the specifics of a complex situation (Denzin & Lincoln, 2011, p. 4). The narratives or stories are the units of analysis (Connell, Klein, & Meyer, 2004), and as data they can stand on their own as pure description of experience (Polkinghorne, 2005).

Narrative research is the study of stories that people tell about themselves and about others (Boje, 1995; Caine et al., 2013; Connell et al., 2004; Linde, 2001; Ospina & Dodge, 2005; Polkinghorne, 2007). For this study, the participants told their stories through interviews and these stories served as evidence of their personal descriptions of experiences. According to Polkinghorne (2007) experiences told in stories are claims about the meanings that life events hold for people, and about how people understand situations, others, and themselves.

The methods in narrative inquiry orientated my research by directing attention to the use of narratives as a way to study an aspect of society. In this study, my focus was on understanding the knowledge of the indigenous people of Sarawak, and on understanding the CIs and the knowledge acquisition process of the CIs in safeguarding the intangible cultural heritage of the indigenous people. The use of narrative inquiry in this research focused on narratives and stories, as groups or individuals told them, directly or indirectly.

From the interviews, I managed to acquire two main categories of narratives: (i) on the nature of indigenous knowledge and how the holders of indigenous

knowledge share their tacit knowledge; and, (ii) on the CIs' processes of acquiring and safeguarding indigenous knowledge that accompanies the ICH.

These narratives helped to reveal personal and social identities, for example, the importance of a knowledge holder in the social structure of the Iban, or how cultural materials reflected the social identities of the Orang Ulu. I explored the specific phenomena of the cultural protocols and sensitivities involved in knowledge sharing processes of the indigenous groups. The use of narratives further assisted the exploration and understanding of the meanings built from their diverse experiences as knowledge holders in their communities.

Ospina and Dodge (2005) emphasized the use of narratives to move beyond efforts to describe a universalized, orderly social world, i.e. for narratives to be used to convey specific knowledge, pertinent to the local community, including the aspects of experience that are unique to specific contexts and other human circumstances. They further stressed that narratives can be used to guide attention to certain queries the researchers have in mind as a means to interpret the experience, both from the perspectives of the scholars and the people they study.

1) 3.5.1   **Narrative inquiry in knowledge management and indigenous studies**

In research conducted in the field of information systems, specifically on knowledge management, narrative approaches have been used as a bridge to make tacit knowledge explicit, allowing 'social knowledge to be demonstrated and learned' (Linde, 2001). Connell et al. (2004) used narratives or stories to transfer, share or exchange knowledge in organizational settings to increase understanding of the creation and dissemination of knowledge in organizations. Studies on knowledge management in the public sector have explored specific phenomena such as leadership and organizational change (Ospina & Dodge, 2005). Narrative 'enables knowledge management by creating shared context: without shared context, information ceases to inform and degenerates to data or, worse, misinforms or misdirects' (Snowden, 2002, p. 1).

In indigenous studies, Benham (2007, p. 517) stated that the telling of stories and historical memories are parts of a sacred whole. Stories, either myth or legend, or recollections of daily activities or events, are continually told to ensure the sustainability of the life and knowledge of the indigenous people, thus making the story sacred. Benham also proposed that narratives be indigenized, that they have to be authentically from the place where they originally belong, and researchers should use narrative inquiry to explain the cultural and social phenomena and to enlighten the readers on the complex and pertinent affiliations in an indigenous context (Benham, 2007).

By engaging in narrative inquiry I was able to gain an understanding of how indigenous knowledge is shared. My understanding emerged through a research process described as 'narratively composed, embodied in person, and expressed in practice' (Clandinin & Connelly, 2000, p. 124). However, Harmer (2006) highlighted the risks that have to be managed in the use of narrative inquiry. One of them is the issue of truthfulness in the storytelling as 'stories obtained must not be distorted by the researcher's bias … as stories are co-constructed by the narrator and the listener and are shaped by the principal narrator's perception of the listener's prior grounding in the subject matter' (Harmer, 2006, p. 88). However the aim of narrative research is not necessarily to determine a true picture of events, but to explore how one makes sense of the events, through her or his attitude, meanings and feelings towards the events (Greenhalgh & Wengraf, 2008).

3.6   Why I chose Narrative Inquiry

For this study, I used narratives both as a mode of inquiry and a product. As a method or mode of inquiry, I used stories or narratives or descriptions of a series of events that account for the knowledge sharing practices and requirements of the indigenous people and of the experiences of how the CI sector acquires and manages that knowledge, fulfilling any cultural sensitivity requirements of the processes. Thus the narratives contributed to the understanding of how the

indigenous people manage and share their knowledge, and of the issues that arise from the perspectives of the CIs in their safeguarding of ICH and the knowledge embedded within it by the indigenous people. As a product, the narratives collected, especially from the indigenous people, are representations of ICH that could be used to help preserve indigenous knowledge.

While Connelly and Clandinin (1990) stated that narrative inquiry includes narrative as both a phenomenon and a method of study, Pinnegar and Daynes (2007, p. 5) placed narrative inquiry 'under the label of qualitative research methodology'.

Narrative inquiry as a methodology also enabled me to understand the stories in the context of the people and events I was studying. The narratives obtained from them 'reflect the richness and complexity of their experience' (Ospina & Dodge, 2005, p. 151). This is different from a variable-centred research method, or one such as those employed in quantitative research, which reduces complexity by leaving out the context of the stories, and thus, I decided it was not applicable for the nature of my study.

My other justifications for choosing narrative inquiry are as follows:

- In this research, I studied the knowledge-sharing practices amongst the indigenous communities and the CIs' experience in safeguarding their traditional knowledge. It allowed me to focus on the narratives of two different groups. The narratives of the indigenous people are related to their local knowledge and practices of knowledge sharing and the nature of their indigenous knowledge, and they gave me the opportunities to observe and study the social identity of the knowledge holders. The narratives of the staff from the CIs focused on the challenges of safeguarding and managing the ICH and the traditional knowledge embedded within it. The CIs' stories allowed me to understand the contexts and issues brought about by the nature of indigenous knowledge. The combination of these stories provided me with the meanings and interpretations necessary to answer the research questions of my study.

- The stories, occasions, timeframes, and experiences that were described during the interviews and the notes from my observations while conducting the interviews provided useful data regarding the people and the context within which the particular narratives were produced. These combinations allowed for *multiple voices* of interpretations.

- Narratives or stories derived from this inquiry were used as a two-pronged strategy, that is, as a means to understand the phenomena, and as a tool to preserve indigenous knowledge and the corporate memory of the CIs.

Narrative inquiry relies on details, particularities and context of narratives or stories. According to Reissman (2008, p. 12) these are important in a narrative study, as the stories allow the research to include many voices and subjectivities. The social interaction with the participants elicited their tacit knowledge, generated into narratives or stories regarding events, times, places and their experiences. Narrative inquiry helped create 'a research text that will illuminate the experiences' (Clandinin & Connelly, 2000, p. 124), in this case, of and for the indigenous knowledge holders as well as the CI sector.

By immersing myself in the context of the participants, by going to the locations of the knowledge holders, and visiting the CIs, I was able to experience the many layered expressions of the thinking of the participants, know their intentions and understand the meanings of their actions. This was in line with the call by Reismann (2008) for a narrative researcher to be immersed among the participants, to assist the researcher to see and experience the phenomena under study. Narratives then do not just give the superficial context of the story, but are 'amanifestation of implicit and interrelated ideas that help people make sense of the world' (Ospina & Dodge, 2005, p. 150).

In the context of this study, the narratives acquired can be perceived as 'cultural scaffolds' (Moen, 2006) that could be used as a tool for preserving the integrity of the knowledge attached to the ICH. These cultural scaffolds could assist in other safeguarding measures and policies that can be adopted by the CIs and the heritage sector in Sarawak. By using narratives, I deliberately sought the voices of

the indigenous people that were lived, experienced and told. Thus narrative as a method was the best way of representing and understanding the experiences of the two categories of participants. The stories helped me make sense of their actions, identifying meanings and justification for their tacit knowledge.

3.7 Indigenous research approach

Using an interpretive approach involving indigenous people as participants in my study, and using narrative inquiry as my methodology, I was informed by indigenous methods and perspectives. Data from my qualitative approach of using interviews and observations provided descriptions of the thinking of the participants. Indigenous participants were from the indigenous communities, but there were also participants from the CIs who were from the indigenous groups. Their involvement as indigenous researchers required me to be sensitive to their cultural structures and protocols.

The indigenous research approach, popularized by Smith (1999, 2012), has been expanded by other researchers (e.g. Chilisa, 2012; Porsanger, 2004; Sillitoe, 2010; Wilson, 2001). As an indigenous researcher, my subjective location (Menzies, 2001) was in my professional background: my work in a heritage institution where I was involved with the acquisition, collection and digitization of some of Sarawak's indigenous knowledge with the intention of safeguarding this knowledge through documentation. However, I observed that there was something missing from this exercise. Although we were able to digitize the knowledge 'containers', we still lacked the hidden meanings behind such artefacts, or the intangible values that accompany ICH, for example. This was the motivation for my study.

In this study I have explored cultural institutions' need to collaborate with the indigenous people, share their knowledge, and document the ethical requirements and considerations for sharing their knowledge. This qualitative study was conducted with the indigenous people as my research partners, not as research on them, in line with the concepts of indigenous research stated by Chilisa (2012), Menzies (2001) and L. Smith (1999). The participants were the co-

constructors of my research, where I used interviews as my primary data collection method.

The participants were my research partners, and during the interview process, I worked to build a shared understanding about this partnership role with my participants: that they helped me co-construct my research, and that I was doing research by observing their indigenous protocols, and respecting their indigenous ways of knowing. In this way, I acquired their trust, especially from the indigenous participants from the source community. In my study, trust is important, so as to ensure that the data they shared with me are reliable. Gaining their trust, by appropriately breaking the ice with them, and adhering to their cultural protocols, helped to establish positive relations with them, so as to encourage them to be more open with their stories, and making them willing participants.

There were other informal, cultural sets of ethics for a respectful research protocol that I had to observe during my fieldwork in order to achieve the degree of collaboration that I needed from my research partners. The process of knowledge sharing amongst the indigenous people contributes towards creating the principles of respectful relations within their own community, and with the heritage institutions. For example, the giving of blessings to the environment surrounding the knowledge sharing events before the events commenced is an indication of thanks to the originator of knowledge, recognizing that knowledge is not created in a vacuum, but constructed with contributions from the surrounding elements, and with the people involved. These form parts of the knowledge in totality.

During the preparation for and while conducting the interviews, there were cultural protocols that I had to observe. With the three indigenous groups, I had to be aware of different components of their culture while trying to have access to them, in addressing them, in being allowed into their homes, in my behaviour while talking to them, and even how I dressed for the interviews. Research participants from the heritage organizations who were also of indigenous descent had their own sets of indigenous cultural values and protocols. Adding to these

were their formal organizational protocols as demanded by the requirements of bureaucracy. This was confirmed by Smith who stated that indigenous people 'like everyone else, make assessments of character at every interaction. They assess people from the very first time they see them, hear them, and engage with them […] by the tone of a letter sent to them, as well as the way they eat, dress and speak' (Smith, 2008, p. 129).

I had to be able to project an image to give the research participants, both from the heritage institutions and the indigenous groups, the perception that I had come to them asking for their help to provide me their stories about the phenomenon that I am studying. I had to make them feel comfortable with me, thus enabling them to relate to me and share their stories with me. By using language that demonstrated respect for who they are, for their customs, and for their rituals, I illustrated that I was minding my manners in front of them, and my research partners reciprocated.

Smith (1999) and Menzies (2001) stated that First Nations and Native American communities have formally documented protocols for researchers as guidelines for being respectful, for showing or accepting respect and reciprocating respectful behaviours, thus developing membership, credibility and a good reputation.

This importance of 'being seen' in the community is further reiterated by Smith (1999) as it is also practised in the Māori community. This approach conveys 'the sense of being seen by the people, showing your face' to develop and maintain one's credibility (Smith, 1999). Another ethical requirement of the community is that whatever is acquired from them is to be discussed and given back to the people in an 'ethical and respectful' approach (Smith, 1999).

I realized that I might not be able to delve deeper into the minds and hearts of the indigenous participants if I was not culturally sensitive while building my rapport with them. According to Chilisa (2012):

> Building reciprocity and rapport requires a process that connects the researcher to the researched through sharing of values and through practices that recognise that both the researcher and the researched are connected to the living and the non-living; knowledge is constructed in recognition that the living and non-living play a part in the outcome of the process of building it. (Chilisa, 2012, p. 115)

As an indigenous researcher, I found it was important to mention my roots and background to my research participants each time I initiated the opening briefing. Besides being an icebreaker during my initial meetings with them, I found that this information made them more responsive and empathetic. It also increased their curiosity about why I was attempting to research such a topic, which to them was not a mainstream subject area in this modern world, and it involved finding out about almost forgotten aspects of their culture. Although being an indigenous community member would not mean I am automatically able to understand or see the phenomenon I was studying, I had confidence that my experience and indigenous heritage would guide my reflections and enhance my sensitivity to important questions and to my research participants or partners.

3.8   Research Design

My research design and approach is illustrated in Figure 2 below.

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┌─────────────────────┐    ┌─────────────────────┐    ┌─────────────────────┐
│ Preparatory Phase:  │    │                     │    │      Proposal       │
│ Identify research   │──▶ │  Literature Review  │──▶ │    Presentation     │
│ problem & questions │    │                     │    │                     │
└─────────────────────┘    └─────────────────────┘    └─────────────────────┘

┌─────────────────────┐    ┌─────────────────────┐    ┌─────────────────────┐
│     Analysis &      │    │   Data Collection   │    │  HEC Approval &     │
│  Interpretation of  │    │    and Analysis     │    │  Malaysian Gov't    │
│     Findings        │    │   Category 1 & 2    │    │     Research        │
│                     │    │                     │    │     Clearance       │
└─────────────────────┘    └─────────────────────┘    └─────────────────────┘

┌─────────────────────┐    ┌─────────────────────┐    ┌─────────────────────┐
│ Synthesise & Revisit│    │                     │    │                     │
│ Literature Review;  │    │     Findings,       │    │     Completion      │
│ refine research     │    │  recommendations    │    │                     │
│ problem and         │    │  & conclusions      │    │                     │
│ question            │    │                     │    │                     │
└─────────────────────┘    └─────────────────────┘    └─────────────────────┘
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Figure 2   Overview of Research Design

The arrows, which illustrate the continuous revisiting of the problem statement, the research questions and the literature review, indicate the recursive and iterative nature of this research project, especially after the data were analysed. The iterative and discursive nature of narrative inquiry required the literature to be reviewed on an on-going basis throughout the study to compare and contrast the data that have emerged (Bloomberg & Volpe, 2008). The iterative nature of the study process and the flexibility of the design involving 'fluidity and openness to change' (Gorman & Clayton, 2005, p. 36) were unavoidable and essential. Data collection involved two categories of participants, thus Category 1 and 2 in the diagram above. These two categories of participants were the CIs and the

indigenous knowledge holders. Analysing and interpreting the data required constant comparison, going back and forth, and cross-referencing the data from the different interviews.

3.8.1   Fieldwork

I started gathering data once formal approval was received from the VUW Human Ethics Committee (including the approval for a research assistant during data collection) and research clearance was approved by both the Federal and the State governments. These were the formal ethics procedures. The ethics clearance with both the Federal and the State governments are official requirements for any foreign researchers or foreign institutions doing research in Malaysia, and although I am a Malaysian citizen, I had to abide by these requirements due to Victoria University's status as a foreign university.

Once the formal approvals were received from the Federal government agency (i.e. the Economic Planning Unit) and the State government agency (i.e. the State Planning Unit), I contacted the selected sites and participants, seeking their agreement to partake in the study.

I had two clusters of research participants, i.e.:

(1) CI participants - nine group interviews with 34 staff from the six different CIs, and (2) Indigenous participants - six group interviews and three individual interviews with the 23 indigenous knowledge holders from three ethnic groups.

For my indigenous participants, I had to inform the respective administrative offices in Sarawak (either the Resident or the District Office, depending on the location of the indigenous participants). I sought consent from the participants using the *Interview Participant Information Sheet* (Appendix 4), and the *Participant Consent Sheet* (Appendix 5). Once the agreements were received, data collection commenced using multiple methods: open interviews, observations, and document reviews. Interviews were mostly employed to gather data from the participants. Other data gathering methods including document reviews, especially during interviews with the CIs, were conducted. Examples of

documents reviewed include the documentation products of their projects with indigenous communities, as well as procedural and process workflows. During interviews with the indigenous participants, I reviewed cultural artefacts, especially when the participants were explaining the tacit meanings of their ICH.

It was also during these interview sessions that I made personal observations, i.e. observed their body language, and observed group dynamics, between themselves as a group, and when they interacted with me during the interviews. During the interviews was also when I observed how both clusters of participants conduct their cultural protocols.

My active participation in the field with the participants made 'possible the description and understanding of both externally observable behaviours and internal states (worldview, opinions, values, attitudes and symbolic constructs)' (Patton, 2002a, p. 48). The interaction with the participants helped determine 'the direction the research takes' (Gorman & Clayton, 2005, p. 35) as new findings and understanding unfolded. The latter allowed me to 'revisit' the research problem and questions, the methods of data collection and the literature on an on-going basis while data were being gathered and analysed, and well into the report writing. (I discuss my fieldwork in detail in Chapter 4).

3.9   The research process

In this section, I justify and elaborate on the research process of selecting the participants, the sampling strategy and the sample size.

3.9.1   Selection of participants and research sites

As a key factor in any research, the concept of sampling means taking a part of some population to represent the whole population. Sampling design for research provides the guidelines to help ensure that respondents are selected properly in order to meet the requirements of reliability and to do so within the allocated resources (Alreck & Settle, 2004). Alreck and Settle stressed two criteria for

research participants selected as samples of a study: that they 'have the information, and that they may need to have certain attributes or characteristics to make their responses' (Alreck & Settle, 2004, p. 57). The researcher also has to identify a sample selection strategy, which is 'a list or set of directions identifying all the sample units in the population' (Alreck & Settle, 2004, p. 57). The sample strategy is necessary to identify the entities to be studied. In this study, the sample strategy was purposefully selecting the indigenous knowledge holders and the CI sector staff involved in the acquisition and management of indigenous knowledge.

3.9.2   Sampling strategy

The sampling strategy for this research was:

- Purposive sampling, that is, a mixture of criterion sampling and stratified purposive sampling;

- Snowball sampling;

- Sample size of the research participants, length of interviews, and the research settings.

3.9.2.1   *Purposive sampling*

Sampling in qualitative research concerns the people to be observed or interviewed, and includes settings, events and social processes (Miles & Huberman, 1994). Following the advice of Bryman (2008), Creswell (2003), and Patton (2002b) I purposefully selected research sites and participants for this research with the main purpose of deriving insights that would best assist me in understanding the problem and the research question.

An 'appropriate sample is composed of participants who best represent or have knowledge of the research topic [with the objective of ensuring] efficient and effective saturation of categories, optimal quality data and minimum dross' (Bowen, 2008, p. 140). The goal of purposive sampling is to select the participants,

organizations and documents in a strategic way, relevant to the research question, and in understanding the phenomenon being studied. The goal is also to locate sites and participants while certain constraints such as availability, accessibility, and cost must also be taken into consideration. Due to the unique nature of the research setting, with its own mix of people and contextual factors, my main intent was to describe a particular context in depth, not to generalize it to another context or population (Bloomberg & Volpe, 2008, p. 69).

Coyne (1997) argued that in purposive sampling, as in random sampling, sample selection greatly affects the ultimate quality of research. Patton (2002b) stated that all sampling is purposeful, but with variations in the types to suit different strategies. Patton (2002b) reiterated that qualitative inquiry focuses on relatively small information-rich samples, selected to provide insights and in-depth understanding and to illuminate answers to the questions under study. Precise purposeful sampling can be chosen to fit a specific kind of inquiry. I used Patton's descriptions of purposeful sampling as a guideline for the sample selection.

3.9.2.2   Strategies of purposive sampling

I used two sampling strategies to achieve my purposive sampling (Patton, 2002a): criterion sampling and stratified purposeful sampling. The mixing of more than one sampling strategy, also known as mixed purposeful sampling (Onwuegbuzie & Leech, 2007; Patton, 2002a), is recommended for data triangulation (Miles & Huberman, 1994) as well as for the purpose of 'flexibility and meeting multiple interests and needs' of the research (Patton, 2002a, p. 244).

3.9.2.2.1   Criterion sampling

Although criterion sampling is normally used for phenomenological studies (Bloomberg & Volpe, 2008), due to its strength, it was used for this research as the research participants were selected to represent categories of people who have experienced the same phenomenon, i.e. the knowledge holders amongst the indigenous people, and the staff of the CIs involved in the acquisition and

management of indigenous knowledge. This sampling technique is also used for the purpose of quality assurance (Miles & Huberman, 1994).

For this research the two categories of research participants who fulfilled the criteria to help yield insights into the research question were:

- The indigenous knowledge holders of the three selected indigenous groups of the *Iban, Melanau* and the *Orang Ulu*. These three indigenous groups were selected due to their geographical location as well as the size of their population, as mentioned in Chapter 1. The *Iban* (the biggest group) mainly occupy the southern part of Sarawak, the *Melanau* (a medium-sized group) are mostly located in the central region and the *Orang Ulu* (the smaller group) mainly live in the north.

- The staff of all the CIs of Sarawak Civil Service who are involved in the acquisition and management of ICH.

The criteria for the selection of the research participants were:

- Knowledge holders of these three indigenous groups, which include the chieftains, community leaders, knowledge holders who normally head or lead rituals or indigenous ceremonies, the *medicine person* in the community, and the *recipients* of sacred and secret knowledge; and

- Staff in the CIs who are directly involved in the acquisition and management of artefacts and the indigenous knowledge attached, especially the staff who collaborate closely with the indigenous groups in the course of their work.

3.9.2.2.2   *Stratified purposive sampling*

The next sampling strategy used was stratified purposive sampling. According to Patton, 'stratified samples are samples within samples' (2002a, p. 240). In this study, within the criterion sampling, those research participants identified were further stratified. Even during the interviews, after the participants understood the purpose of my research, some of them led me to others in their community

(indigenous people/CI) and they helped identify those who could help with my research interviews, either individual or group interviews. For example the knowledge holders were divided into 'strata' either according to the hierarchy or the role of the person in the indigenous community or the organization. Further description of this matter is provided in Chapter 4.

Within the indigenous groups, the sample was stratified according to the status or identity of the person, 'representing the layers or groups of people relevant' (Gorman & Clayton, 2005, p. 128) to this research. This layer of representation comprised the chieftains, the medicine people, the ritual or ceremony heads, and the knowledge recipients. In the CI sector, the research participants were stratified according to the post in the organization, for example, the head of the organization, the conservator, the researcher and the document/artefact manager. The participants from the CIs were also selected based on feedback from the respective heads of their organizations, which I obtained during my initial courtesy calls on them (again, explained further in Chapter 4).

Stratified sampling enabled me to identify participants who provided variations in a fairly homogenous sample (Patton, 2002a, p. 240). This strategy of stratification of samples gave my study credibility, as a variety of perspectives on the research problem were acquired from multiple participants of different status levels in the organizations or in the indigenous communities (Gorman & Clayton, 2005; Polkinghorne, 2005). This, according to Gorman and Clayton, relates to the principle of triangulation, where data obtained from several established sources strengthens the integrity of data. Stratified sampling facilitates comparisons between the groups (Miles & Huberman, 1994).

A homogenous sampling technique was used for the group interview participants (Onwuegbuzie & Leech, 2007). The group members comprised individuals who have similar characteristics or attributes. The same characteristics for criterion sampling were used in selecting members of the groups from the two categories of participants, that is, the group consisting of the indigenous knowledge holders, and the group from the CI sector.

The flexibility of qualitative research allowed me to add more participants as my data collection progressed. The CIs chosen for this study were selected based on the one common function amongst them, i.e. these organizations are the repositories of indigenous knowledge, attached to the types of *knowledge containers*, and that these CIs purposely acquire indigenous knowledge as one of their core business functions.

3.9.2.3 *Snowball sampling*

Miles and Huberman (1994, p. 27) iterated that although the participants in qualitative studies can be identified earlier, they can also evolve once data collection has commenced. This was true in my study, where I had an initial group of purposefully selected participants, and as the interviews commenced, I was introduced to others who were recommended to me by the initial interviewees. This is snowball sampling (Flick, 2006; Ravitch & Riggan, 2012), where the initial key participants would provide suggestions on other participants who could contribute valuable data to the research. Wildemuth (2017b) recommended snowball sampling for topics that are of a sensitive nature, or when it is a challenge to identify suitable participants for a study. I combined snowball sampling with purposive sampling to identify eligible participants for my study.

The initial selection of sites and participants was aimed at maximizing the possibilities of obtaining data. This initial selection gave me the opportunity to get leads to other participants (as explained earlier on snowball sampling) at times when I found it necessary to add more participants. The selection of sources remained open throughout the iterative research process, 'moving from data collection, analysis and back until the description is comprehensive' (Polkinghorne, 2005, p. 140).

3.9.3   Sample size

Patton (2002a, p. 244) reiterated 'that there are no rules for sample size in qualitative inquiry as it depends on what the researcher wants to know, the purpose of the inquiry, what's at stake, what will be useful, what will have credibility, and what can be done with available time and resources'. Sample sizes in qualitative research should not be too small as that might challenge the researcher to achieve saturation; neither can the sample size be too large as that can hinder in-depth and information-rich analysis (Sandelowski, 1995). I did not fix my initial sample size when I entered the field for data collection, and initial groups of participants that I identified fulfilled the criteria as stated earlier. However, I set a minimum of three participants to represent each of the indigenous groups. For the CIs, I had a minimum of one person from each. In total, from the CIs I had 34 participants, and 23 participants from the indigenous groups.

3.10   During data collection

Data for my study were mostly gathered through interviews and participant observation. However, I did use secondary data minimally (such as websites, organizational ISO quality system documentation, documentation inventories) mainly to support interview data from the CI, but I give further detail only on interviews and observation in the following two subsections.

3.10.1   Conducting the interviews

This study was designed to investigate the perspectives of both the indigenous people and the staff of CIs. As mentioned earlier, I used individual and group interviews to gather information about these processes and events from the voices of the knowledge holders amongst the indigenous people and also from the heritage institutions.

I used an interview guide (Appendix 1) on topics for this study with open-ended interview questions. The interview guide elements were derived from the

literature and from the conceptual framework. I enhanced the design of the interview questions for the indigenous groups by refining them to include protocols and ethics of doing research with Sarawak's indigenous people. This was based on the advice from the head of one of the CIs when I made my initial courtesy call to him before doing my fieldwork with the indigenous groups. While most of the questions in the guide were based on concepts informed by the literature and the conceptual framework, the questions were more open-ended, less structured and less intimidating, to allow the participants to be more relaxed and talk openly in their own ways and language. The participants were also required to introduce themselves and describe their roles, thus communicating about their identities, in their own terms. Putting the participants at ease in the interview process provided me with more opportunities to allow them to describe their knowledge in their own terms.

The interview opening stages were broad and general, and used as an icebreaker to put the research participants at ease, thus slowly building their trust in me. This icebreaking process was much needed, especially with the participants from the three indigenous groups. At one interview session in the home of a traditional healer, after the general introduction about me by the District Officer, I sensed that the participant had reservations about being interviewed. I noticed in his house that there were graduation photos of his grandchildren, all girls. So I started telling him that I come from a family of eight girls. That engaged his interest and warmed him up. I further encouraged him to tell me about his family, and I steered the conversation toward getting him to tell me about what he does on a daily basis as the local traditional healer, and eventually into my focused topic.

This steering from broad area to specific subject matter took place as the interviews progressed. This was not necessarily always in a linear manner. Sometimes, the participants discussed matters irrelevant to the study, but I allowed that to happen as a way of putting them at ease and to get their cooperation. In the process of conversation with them, I would bring them back to the subject matter subtly, so as not to antagonize them. Sometimes I linked

their conversation and narratives to get them to describe and explain to me their experiences in the processes and events of safeguarding traditional knowledge, including their own understanding and meanings.

I used both cultural and topical interviews in my study. According to Rubin and Rubin's (2005) broad categories of types of interviews, cultural interviews involve more active listening and are more flexible as there is no pre-set agenda of issues to cover. This type of interview explores 'the ordinary, the routine, the shared history, the taken-for-granted norms and values, the rituals and the expected behaviour of a given group of people' (Rubin & Rubin, 2005, p. 9). Since the interview participants have similar cultural and knowledge backgrounds, for this type of interview, Rubin and Rubin (2005, p. 10) likened the researcher to 'a photographer making choices about what to frame within the picture but reproducing exactly what was there'. Topical interviews examine specific circumstances and focus on piecing together the differences and the explanations of problems highlighted at the beginning of the interviews. While putting the pieces together, the researcher recognizes that each participant might have their own perceptions about the processes and events, thus making the researcher, as Rubin and Rubin (2005, p. 11) described, 'more like a skilled painter than a photographer, selecting details and creating an image from them', when writing up the stories from the interviews.

While it was necessary to focus on the predefined topic of my research, the nature of some of my research participants made it essential for me to engage in flexible, conversational discussion, with no pre-set agenda of issues to be covered. The nature of topical interviews required me to purposively choose my research participants, identifying those who might be able to provide the answers that I needed. At the beginning of the interview sessions, or when there were times that I felt the participants were not being cooperative, I used non-pressing questions, for example, asking them about their routines, and I let them dominate the conversation first. When the interview progressed, and I felt that a certain level of trust had been established, I used direct and probing questions, and I played a more active role to make them more focused. In the thesis I have used a

combination of extended quotes from these participants to allow their voices to be heard together with my own analysis, judgement and recommendations.

I had several phases of interviews with the participants. The first phase was focusing on the indigenous participants, drawing stories from them on their traditional knowledge. Due to travel related factors, I spent more time interviewing the indigenous participants at their locations. Later, I used telephone calls, when applicable, to ask for clarification on matters that were not clear in the transcripts. Interviews with participants from the indigenous groups varied: some were individual interviews, and some were group interviews.

The interviews with the participants from the CIs followed the interviews with the indigenous participants. The stories I heard in the interviews with the indigenous participants helped me in the subsequent interviews with the CIs. I had two phases of interviews with the CIs. The first was conducted with participants from each CI, i.e. I went to each CI's location. All of the interviews with the CI participants were conducted as group interviews, as the number of participants from each CI ranged from two to twelve people. The subsequent interview session I had with the CIs took place after I transcribed the original interviews and did my first round of coding and categorization of findings. This time, I managed to gather all the participants from the CIs for one group interview in one place. It was from this interview that I was able to see the unique and duplicated efforts of safeguarding ICH amongst the CIs. There were also several times that I had to resort to emailing some of the participants to seek further clarification after the group interviews.

Below is a summary of interviews conducted:

Interviews:

Two clusters of participants: (1) the staff from six different CIs and

(2) the indigenous communities from three ethnic groups.

Cluster 1: CI staff (34 participants)

Group interviews (one group for each CI, at the different CIs' locations) = six interviews + two extra interviews (two CIs were interviewed twice)

Group interview (all the CI staff together at one location) = one interview

Cluster 2: Indigenous participants (23 participants)

Individual interviews (two individual interviews for each indigenous community) = six interviews

Group interviews (one group for each indigenous community) = three interviews

The group interviews provided richer data due to the dynamics of group discussions, as compared to individual interviews. In my experience, the individual interviews I conducted required more encouragement, and I had to ensure the individual interviewees were at ease and able to continue with the interviews. However, for group interviews, the major challenge for me was managing several interviewees speaking at the same time.

3.10.2   Participant observation

Participant observation as a data collection method is used in most descriptive studies (DeWalt & DeWalt, 2011) to understand meanings in a particular setting. Spradley's (2016) use of participant observation in an ethnographic approach is used to make cultural inferences by using three types of information: (i) observing what people do (their behaviour), (ii) observing the things they use and make (their artefacts), and (iii) observing the language they use (speech).

My study was not ethnographic research, where the researcher is immersed as a participant in the community or subject of research for a prolonged period of time (Flick, 2006; Spradley, 2016). However, I used observations to enhance the data from my interviews. I made observation notes about the participants during my interviews with them. As time was limited during my fieldwork, I did not have the opportunity to conduct extensive observation of knowledge sharing practices among my indigenous participants, except in two of my interviews: with the

Melanau participant, in making the Melanau traditional hat, and the Iban participants in the weaving of the *Pua.*

My observation notes during the interviews with the indigenous participants were focused more on their behaviour during the interviews. They shared their stories during the interviews, which was a way of them sharing their knowledge with me. I was also observing the language they used when they were communicating with me, and when they were communicating amongst themselves while discussing their viewpoints with each other before they replied to my interview questions. There were interview sessions where I had the opportunity to view their material culture, where they emphasized certain matters with regard to the use of artefacts. During these opportunities, I observed how they described the artefacts; at certain points, I could feel their excitement, or how they were cautious about sharing with me certain sacred aspects of their knowledge. Sometimes, certain aspects of what I observed provided some implied meanings, for which I usually sought clarifications from the participants.

My professional background as a staff member of one of the CIs made it less challenging to enter the CIs as a researcher. I observed that the interviewees from the CIs were willing to share their concerns and challenges, and they were more relaxed in my presence, as an 'insider' from a CI. I had the opportunity to observe one of the CI's teams collecting data from indigenous participants, as a preparation for one of their cultural material projects. Thus, I undertook observation as a secondary method of acquiring data, to support data I acquired from my interviews.

The observations of and interviews with the participants from the indigenous groups and the CIs did not just validate each other: they also assisted my further understanding of the phenomena of my research. The indigenous people's data had their own layers of meanings, added to by the CI participants' perspectives on their work with the indigenous people.

3.11   Managing data collected

In this section, I share my experience in managing the data, and the data analysis processes of my study.

3.11.1   Transcribing

Transcribing the interviews was a challenge for me, especially for those interviews that were conducted in groups. Transcription is not just writing down what was said or expressed during the interviews, but is also the 'process of rendering data into a new representational form' (Gibson & Brown, 2009, p. 109). After each interview, I uploaded the audio files from the digital recorder to my computer, and made backup copies that were password protected.

This freed up the storage space in my digital recorder, which was now ready for the next interviews. The earlier interviews were transcribed manually, which was quite cumbersome. Later, I installed Express Scribe™, a transcription software package, onto my computer, and that made the transcription faster and more organized, though initially, it took a while to learn the software and get used to its helpful features.

I uploaded all the interview audio files onto Express Scribe™ with the intention of deleting the original copies. It was lucky that I did not delete them as later I found out that Express Scribe™ could lose fragments of the audio files. I did my transcriptions and translation (discussed below) directly onto the working space in Express Scribe™, using short forms, abbreviations or short messaging service (texting) language. I maintained these 'raw' transcripts in this program. The raw transcripts were copied onto Microsoft Word documents when I did the cleaning, i.e. converting the interviews into grammatical sentences. I listened to the audio files in Express Scribe™ while I worked on cleaning and improving my translation of the transcripts in the Word document.

I transcribed all the interviews on my own, except for the first two. These two were the initial interviews, which I gave to someone to help me transcribe (after

they signed a consent form to comply with ethics requirements), thinking it was faster that way, while I moved on to the next interviews and the related travels. However, after reading these two transcripts and listening to the interviews again, I decided to do the transcripts myself. For the first few interviews that I transcribed on my own, I transcribed according to what was said by the interviewees. However I did not include conversational stop words or 'non-verbal mannerisms, tone of voice, gestures and other paralinguistic features of talk' (Roulston, 2010, p. 106) such as 'uhh', 'um' etc., as I was not looking at the linguistic aspects of transcribing such as the Jeffersonian convention of transcribing that conveys features of talk for conversation analysis or Gee's convention for discourse analysis. For the subsequent interview transcripts, I transcribed to the level of detail that I was likely to analyse, including those parts that I thought might influence the analysis and interpretation. Transcription is part of this qualitative research process (Nikander, 2008) and I did not seek to be perfect in my transcription, as it was a continuous activity, especially while re-listening to the interviews several times, and when going into the analysis stage.

While transcribing, I made memos or journals for myself on certain matters which I thought important or that would help me further, whether for forthcoming interviews, or connecting material between interviews, or just something that I needed to check or read later on. I hoped that these would help in the analysis and writing stages later. These memos were written manually in my memo notebook, and later I transferred them onto a word processing document on my computer, that would make it easy for me to load into NVivo, the analysis software I was using.

In my transcripts, I included the names of the interviewees, who they were, and the reasons or background for their selection as participants, as well as the location and the duration of the interviews, in line with practices encouraged by Miles and Huberman (1994) and Rubin and Rubin (2005).

3.11.2 Translating

The interviews were conducted in several languages, depending on the interviewees. These languages are different from the language that I have used for my thesis. Roulston (2010, p. 108) described the language that will be used in the thesis as the 'language of representation'. Most of the interviews were in a mixture of languages, i.e. Sarawak Malay, Bahasa Malaysia and English, while there were some in the local indigenous languages of Iban, Melanau or Orang Ulu. For the languages that I did not understand, I sought help from the other participants in the group to translate into English or Malay. For content that was in Malay, I translated the data into English at the point of transcription. The process gave me the opportunity to translate not just the language but also the meaning of what was being said in relation to the research question. This, as stated by Gibson and Brown (2009), is the interpretive process involved in the production of the transcripts. My transcripts were mostly done to articulate what the participants wanted to say in the interviews.

Temple and Young (2004) discussed the importance of the position of the researcher in relation to the process of translating his or her data, especially when the data were gathered in a language or languages different from the language of representation. They stressed the importance of the translation process as part of the process of knowledge production in an interpretive study and they also stressed the need to clarify the proficiency of the researcher in the various languages used.

As such, along the lines of Temple and Young's (2004) guideline mentioned above, as I am not proficient in the Iban, Melanau or Orang Ulu languages, I relied on the members of the interview groups to provide me with the translation or interpretation into the language that I understood, which is Sarawak Malay. Later, I translated these interviews into English, which I used for data analysis and interpretation. With words for which I was unable to find the exact literal meanings, I kept to the closest I could get to the cultural meanings of the phrases. My mother tongue is Sarawak Malay. Though both of my parents are Melanau,

they chose to use Sarawak Malay as the language we spoke at home. This was done to suit the environment that we grew up in. My father worked in the civil service, and as such, he was subject to being transferred, especially in the rural areas of Sarawak in the 1960s and 1970s. Thus my childhood was spent in a number of areas in Sarawak. My parents chose to speak in Sarawak Malay, as it is the *lingua franca*, the common language allowing the different ethnic groups to speak to each other.

English was the medium of instruction used in schools from when I started my schooling until I finished my Upper 6th form. It continued to be the language used at the university I attended for my undergraduate studies. For official purposes, Bahasa Malaysia, the national language of Malaysia, is used, and English is still used widely in the Sarawak Civil Service. Therefore, I am comfortable and fluent in Bahasa Malaysia, English and Sarawak Malay, so translating the interviews posed no difficulty for me. However, when the indigenous languages of Iban, Orang Ulu and Melanau were used, I sought the help of interpreters, or sometimes the interviewees explained as closely as possible to me in Sarawak Malay. These instances happened when the research participants used certain phrases that they could not find a close enough equivalent for in the local Sarawak Malay.

One of the advantages of group interviews was the availability of someone in the group who would be able to translate or interpret the language or statements used by the participants, whenever I was not able to understand what was being said by the participants. These situations happened more in the interviews I had with the indigenous participants. Another advantage was the consistent member checking during the interviews, as the group members would correct each other, thus ensuring accuracy of the translations or interpretations. As such, I did not need to have third party interpreters for my translations.

3.11.3   Analysis

Data analysis for this study started during the early stages of data collection. As data collection progressed during my fieldwork, I kept a memo of how the interviews took place, the participants, the locality and the circumstances I faced during those events, which I elaborate in Chapter 4.

The next step of early analysis was during the transcribing and translating stages, when the content became transcripts of the interviews, written as text documents that allowed me to choose the parts that helped me to find the answers to the research questions. These stages of close inspection of the transcript documents led to the next stage of analysis, i.e. deriving codes from the data, informed by the literature and the conceptual framework. These codes identified the stories with common themes, allowing them to be organized according to thematic groupings. The coding processes, which are discussed in the next section, were continuous and iterative.

3.11.3.1   Coding

There were two main categories of codes that I used in my data analysis, and these are what I termed as (a) source codes, and (b) subject codes.

(a)   Source codes

Source codes were codes that I used for the sources of the data, i.e. the CIs and the indigenous participants. The codes for the CIs were created as mnemonic codes for my use in data analysis, and I created the codes from the geographical locations of the CIs. The codes for the interviewees were created from their names' combination, so as to ensure the anonymity of the participants.

(b)   Subject codes

Subject codes were codes that I gave based on the subject matter of the data. I used my knowledge of classification and cataloguing in doing my library work to derive the codes from the data and to classify and categorize the codes for data analysis.

For each transcript, the first round of coding was based on the a priori codes list that I developed based on concepts in the research questions, the research objectives, from the literature and the conceptual framework. Subsequent codes were identified from the data during the several rounds of reading and rereading of the transcripts. The process of examining the data itself generated empirical codes (Gibson & Brown, 2009), looking for similarities, differences, unique features and the links and cross-references between the different themes and sub-themes. New codes that were identified during these cycles were given definitions, using the tools in NVivo.

The a priori codes and the definitions are informed by the literature and the conceptual framework, and based on the research problem and the research question for this study. These codes continued to be defined, and they evolved as data were analysed. Codes derived from the data were initially assigned using the RQs and conceptual framework as guidelines. In the initial stages, I used mind-map techniques, as illustrated in Figure 3 below, and then I progressed to using NVivo when coding became more complex.

- on the job observation
-documentation standards
-mentoring

- *randau* sessions
-consultative dissemination

-benchmarking
-formal knowledge sharing
-informal inter-CI peer groups

between CIs

Within CI

Back to the indigenous people

indigenous people

working with CIs

cultural institutions (CIs)

knowledge sharing

-observation of rituals
-re-enactment
-committee involvement
-advisory

-people to share with
-types of knowledge to share
-requirements of sharing

sharing factors

practices within communities

-observation
-storytelling
-apprenticeship

Figure 3   Initial stage of coding using a mind-mapping tool

GROUP QUERY

Nodes   Sources
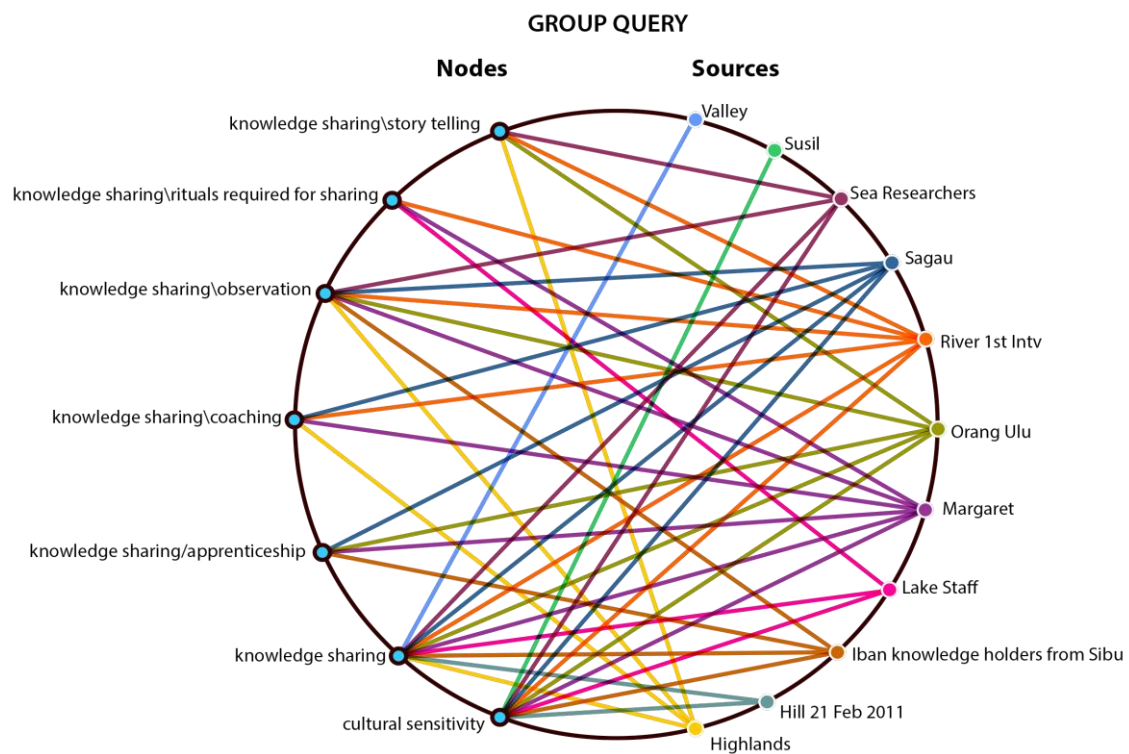
Figure 4   *A sample of cross-referencing of codes using NVivo*

Figure 4 above illustrates the cross-references related to one of the main codes, which was initially assigned as 'knowledge sharing'. The main code was sub-categorized further into the second level on the 'how' of knowledge sharing, which evolved into 'storytelling, observation, coaching, apprenticeship' and other related aspects such as the 'rituals required for sharing', and the 'cultural sensitivity of knowledge sharing'. The sources of evidence, i.e. the data from the respective participants, are indicated on the right side of the diagram.

In answering the RQs, I divided the codes into main themes, according to the categories of participants. The main themes are summarized in the table below.

Table 2   *Main themes from data analysis*

Main themes	
Cultural institutions	**Indigenous people**
Safeguarding indigenous knowledge and the ICH	Ways of sharing knowledge
Working with source communities	Types of knowledge
Sharing organizational knowledge	Cultural sensitivities of sharing

First round of coding: deductive

Second and subsequent rounds of coding: inductive codes

ROs, RQs, Literature and Conceptual framework — a priori codes

comparative: Stories, themes, categories — descriptive, substantive codes

abstraction, relations between codes — abstract codes
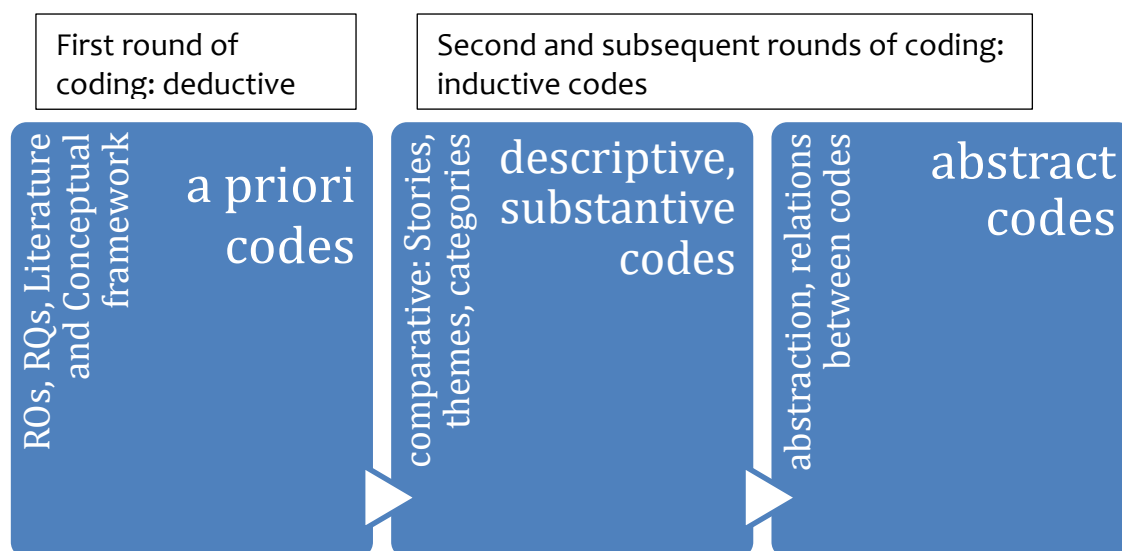
Figure 5   *Coding phases*

Figures 3, 4, 5 and Table 2 above provide examples of progression in the data analysis, and these are inductive processes of elaborating the discovery of the situation under study (Sarker, 2007). The first round of coding was derived from

the research objectives, the research questions, the literature and the preliminary conceptual framework. These were a priori or deductive codes, based on known concepts. The second and subsequent rounds of coding provided me with inductive codes, and one of the main findings helped to explain the nature of indigenous knowledge.

3.12   Reliability and validity

Golafshani (2003) explained that the concept of *reliability* in quantitative research is more aptly labelled *dependability* in qualitative research. Golafshani (p. 601) also noted that researchers such as Lincoln and Guba (1985) chose to use the latter term when discussing qualitative research (as cited in Golafshani, 2003, p. 601). Thus, to ensure the dependability vis-à-vis the quality and trustworthiness (Lincoln & Guba, 1985) of my study, I adopted relevant strategies applicable for my study as outlined by Shenton (2004) and Loh (2013).

Dependability (Shenton, 2004) is one of the criteria for trustworthiness, which I started to address with the preparation of my interview guide. The questions of my interview guide were set forth under the guidance of my former doctoral supervisor, a phenomenology expert. It was his recommendation to seek an authorized translation of the interview questions, as one category of my participants was indigenous people. I sought the help of the then Malaysian Education Attaché to New Zealand, an academic from one of Malaysia's universities. He helped validate the translated versions of the questions.

Credibility is another of the trustworthiness criteria (Lincoln & Guba, 1985), while triangulation (Lincoln & Guba, 1985; Loh, 2013; Shenton, 2004) is one of the techniques used to achieve it. I addressed this by having two categories of participants as explained in Section 3.7.1.2, and through the techniques used during the interviews as discussed in Section 3.8. The methods used for my data analysis also contributed to the triangulation techniques, as coding and recoding were undertaken several times in order for themes to be discovered.

The phases of listening and re-listening to the recorded interviews during the transcribing stages were another method of triangulation. The benefits of the triangulation in these phases were further enhanced by the translation processes, not just in translating the language, but also in *translating* the interviews to a higher level of understanding for conceptual findings.

The transcripts were read and reread several times, in most instances while concurrently listening to the recorded interviews. This method allowed me to reflect upon what was obviously said, as well as extracting other underlying messages embedded in the interviews.

I used member checking as another technique to ensure trustworthiness of my data. For participants from the indigenous groups, I was unable to send them the transcripts of their interviews due to geographical and communication challenges. However, near the end of each of the interviews I conducted with the indigenous participants, I summarized the matters we talked about, and then obtained their consensual agreement before ending and signing off the interviews. For participants from the CIs, I sent them the interview transcripts for verification. I gave each of them a deadline for sending their response to me, and informed them that if I did not receive any feedback before the deadline, this would be a sign of consent. I received feedback for verification from only two of the CIs. The verifications I received from them were mainly on certain confidentiality matters, as well as on the use of politically-correct terms and protocols for the indigenous people.

I further used Loh's (2013) recommendations on the use of two sub-categories of member checking, i.e. peer and audience validation. For peer validation, I engaged two Sarawak PhD students from Victoria University of Wellington who are Iban, to seek validation of the initial findings, and my interpretation of data. In terms of audience validation, i.e. 'validation from primary intended users and readers' (Loh, 2013, p. 7), I presented my initial findings to a group of social science researchers at a local university[5] in Malaysia to get their response as a way

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[5] Universiti Malaysia Sarawak, Kota Samarahan

to help check my interpretation of the data. This was done to further strengthen the validity and reliability of my data and findings.

Loh (2013) is of the opinion that using this 'trustworthiness technique of member checking, specifically peer validation and audience validation' is 'essential to establish verisimilitude in a narrative study' (Loh, 2013, p. 10), i.e. 'the study must "resonate" and seem plausible to the consumers of the study' (Loh, 2013, p. 10).

3.13 Summary

In this chapter I discussed the choice of the methodology of my research, with justifications for the approach and processes involved in data gathering and analysis. In the next chapter, I give an overview of the stories during my fieldwork.

Chapter 4   Overview of the Fieldwork

In this chapter I briefly describe the location of my research, and the preparations for access to the participants. I have also included in this chapter descriptions of my travels, and the challenges and issues I faced during the data gathering phase of my study. These descriptions provide a base for understanding the geographical locations of my interviews and the official protocols of the various organizations. Some of the organizations linked me to the participants from the indigenous groups, and some were the cultural institutions (CIs), whose staff formed the second category of participants.

Sarawak is situated on Borneo, a tri-nation island consisting of the Sultanate of Brunei, the Malaysian states of Sabah and Sarawak, and the Indonesian province of Kalimantan. Sarawak is a vast state (124,450 sq.km), almost one third of the size of Malaysia (328,550 sq. km) in total (Figure 6 below). Most of Sarawak is still rural; some areas are still accessible only by river transport or by small planes.
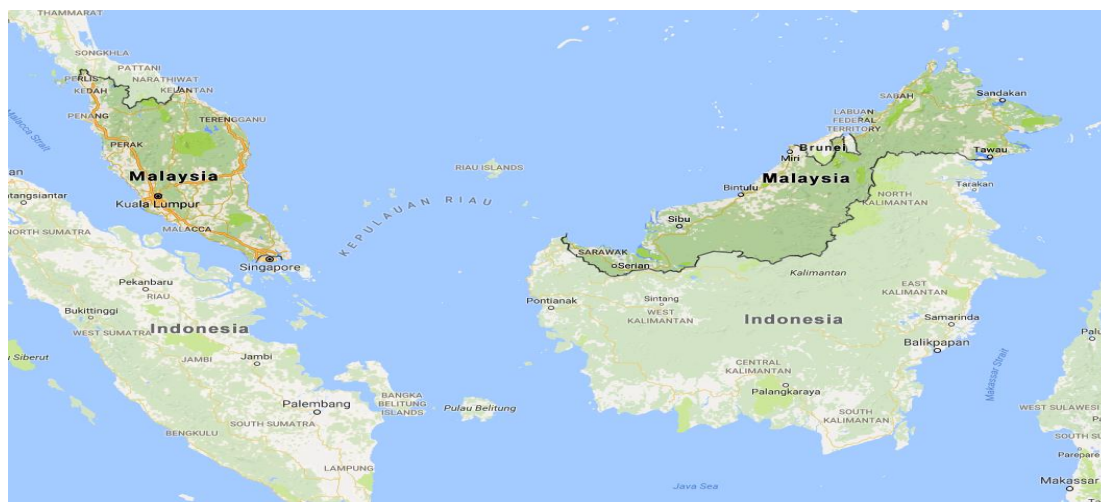
Figure 6   *Map of Malaysia*

 Map Source: Map data @2017 Google [6]
https://www.google.com/maps/@5.4379011,109.1052692,6.19z

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[6] *Copyright holder's permission https://www.google.com/permissions/geoguidelines.html*

4.1   Sarawak and its people

Administratively, Sarawak is divided into twelve divisions. Each division is further subdivided into districts and sub-districts, as in Figure 7 below. Each division has a Resident as the main administrative officer, supported by the district officers. The Resident Office is the gateway to the indigenous people, as explained later in this chapter.

■ ADMINISTRATIVE DIVISIONS AND DISTRICTS

DIVISION	DISTRICTS	SUB-DISTRICTS	DIVISION	DISTRICTS	SUB-DISTRICTS
KUCHING	KUCHING	PADAWAN	KAPIT	KAPIT	NG. MERIT
	BAU			SONG	
	LUNDU	SEMATAN		BELAGA	SG. ASAP
SRI AMAN	SRI AMAN	LINGGA		BUKIT MABONG	
		PANTU	BINTULU	BINTULU	
	LUBOK ANTU	ENGKELILI		TATAU	
SIBU	SIBU			SEBAUH	
	KENOWIT		SEMARAHAN	SEMARAHAN	
	SELANGAU			ASA JAYA	
MIRI	MIRI	BARIO		SIMUNJAN	SEBUYAU
	MARUDI	MULU	BETONG	BETONG	SPAOH
	SUBIS	NIAH-SUAI			DEBAK
	BELURU	TINJAR		SARATOK	BUDU
	TELANG USAN	LONG LAMA		PUSA	MALUDAM
		LONG BEDIAN		KABONG	ROBAN
LIMBANG	LIMBANG	NG.MEDAMIT	MUKAH	MUKAH	BALINGIAN
	LAWAS	SUNDAR		DALAT	OYA
		TRUSAN		MATU	IGAN
SARIKEI	SARIKEI			DARO	
	MERADONG			TANJUNG MANIS	
	JULAU		SERIAN	SERIAN	SIBURAN
	PAKAN			TEBEDU	

Figure 7   Administrative areas of Sarawak, 2017

Source: http://sarawakfacts.sarawak.gov.my

4.1.1 The People

The total population of Sarawak is 2,471,140 million (Malaysia., 2016). The *Bumiputera*[7] or the native population is 1.76 million, comprising the native groups of *Malay, Iban, Bidayuh, Melanau* and *Orang Ulu (Malaysia., 2016)*. The minority groups of *Kenyah, Kayan, Lun Bawang, Murut, Penan, Kajang, Kelabit* and *Punan* are categorized under the *Orang Ulu* group.

Under the Federal Constitution, these groups are listed as *native* or indigenous. Iban, Bidayuh, Orang Ulu, and a majority of the rural population of Sarawak are legally defined and generally categorized under the local or colloquial term of *Dayak*. This is also a reference to the non-Muslim natives. However, the term *Dayak* does not cover or include the Malay and Melanau population, who are also categorized as natives (Bissonnette, 2011; Bulan, 2006).
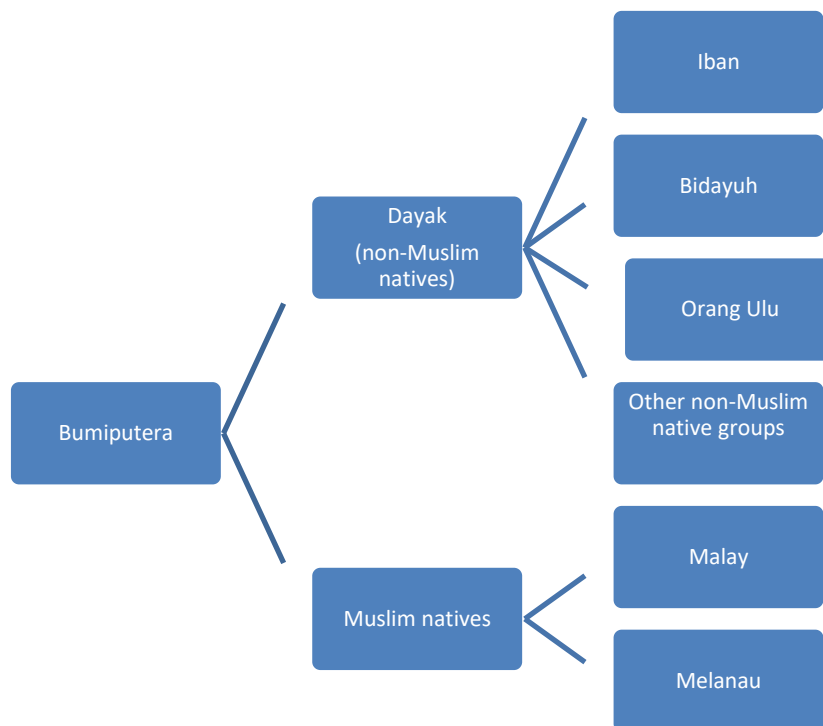
Figure 8   Categories of Bumiputera in Sarawak

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[7] *The Aborigines of Peninsular Malaysia and the native tribes or indigenous groups of Sabah and Sarawak are sometimes referred to as pribumi or 'natives of the land'; and as natives of the land, they are in the category of Bumiputera or 'Prince/Son of the Soil', a term used to refer to all those eligible for special benefits (Nagaraj, Lee, Tey, Ng, & Pala, 2007).*

Figure 8 above shows the breakdown of Bumiputera in Sarawak. Melanau are categorized as Muslim natives as most Melanau are Muslims, although there are Melanau of other religions. Table 3 below gives a breakdown of these groups by religion. The significance of the information here is, as can be seen in the stories from the participants in Chapter 5, that indigenous knowledge has evolved from generation to generation. The coming of religious beliefs has affected the sharing of certain types of knowledge, especially the sacred ones, which, to the indigenous groups, conflict with their current religious beliefs, and that is one of the obstacles to knowledge sharing.

Table 3   *Breakdown of Bumiputera groups by religion*

Name	Total population	Islam	Christianity	Buddhism	Confucianism	No religion	Others	Un-known
Iban	713421	10,978	544,347	2,377	97,208	42,194	16,367	Nil
Melanau	123410	90,261	23,435	178	7,705	1,766	65	Nil
Other Bumi	156436	28,363	94,635	2,181	605	869	534	29,159

Source: Dept. of Statistics, 2010[8]

4.2   The Research Participants

There were two main categories of research participants in my study, i.e. the knowledge holders from the selected indigenous groups, and the staff members of the CIs who were involved in the acquisition, documentation and preservation of indigenous knowledge. The codes for the research participants are provided in Appendix 2.

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[8] *The next major population census will be carried out in 2020.*

4.2.1 Category 1: The Indigenous Groups

The research participants in the first category were from the indigenous groups of the Iban, Melanau and Orang Ulu. The criteria I used to identify the target participants from within these three groups included: they must be either knowledge holders – i.e. those who practise the traditional knowledge in areas of healing, rituals, customary traditions and protocols – or community leaders, who were able to allow me to visit their respective indigenous communities. To identify the contacts for the indigenous participants, I asked for assistance from the CIs who provided me with information on the knowledge holders with whom they worked, from the associations for the indigenous groups, and from the Resident and District Offices. There were 23 participants from the indigenous people.

4.2.1.1 *Melanau*

The Melanau live mostly on the coastal swamps of Sarawak between the Rajang and Baram rivers. The Melanau population is mainly concentrated in the towns of Mukah, Daro, Dalat and Matu (Dept. of Statistics, 2010, p. 74). They are traditionally seafaring people, with sago as their staple food. Sago comes from sago palms that grow in abundance in these wetlands or peat swamp areas. The Melanau women are known for their craftwork, especially the Melanau hat called *terindak* and the weaving of gold brocade cloth.

The link to the Melanau participants came from a contact at one of the CIs who had strong connections with the Melanau in the coastal town of Mukah. He was my key informant who linked me to the Melanau knowledge holders through the Officer at the Mukah District Office (DO), who had a database of contacts of all the key individuals from the different *kampung* or villages. My informant briefed me that the village heads would not heed my request for interviews if I were to contact them directly. They would only meet with me if the invitation were to come from the DO. There were nine Melanau participants, ranging from community leaders and healers to craftspeople.

4.2.1.2 Iban

The Iban population, the largest indigenous group in Sarawak, is predominantly located in the towns of Kuching, Sibu, Bintulu, Miri and Kapit (Dept. of Statistics, 2010, p. 74). Once known as Borneo's head hunters, they were also formerly known as Sea Dayak (Freeman, 1992). Postil (2006) stated, in his research on the effect of modernity amongst the Iban, that until the end of the 19th Century the Iban were constantly moving in search of new lands for their rice farming. This constant movement or *bejalai,* looking for better or new lands, led to intertribal wars in the olden days. The bravery or warrior status of young men then was attributed to their ability to acquire land for their own people, and the number of enemy heads they could bring home. The Iban women generally were weavers, famous for producing the *pua* or woven blankets and well-crafted mats and basketry, normally made from plants or bamboo from the forests.

For my study, one of the committee members of the *Sarakup Indu Dayak Sarawak*, i.e. the Dayak Women's Union, Sarawak, helped link me to Iban research participants in the town of Sibu. My professional contacts in another non-profit organization linked me to other Iban knowledge holders, ranging from oral tradition experts to material culture experts. In total, eight Iban participants took part in my data collection, and the participants were made up of community leaders and knowledge holders who were also points of reference[9] for the Iban culture.

4.2.1.3 Orang Ulu

Orang Ulu is a collective term which literally means *upper river people,* as most of them live at the headwaters of the Rajang and Baram rivers in Sarawak (Munan, 2005). The Orang Ulu population resides predominantly in the northern region of

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[9] *A point of reference here refers to an information service concept in CIs i.e. directing an information seeker to sources of information. I was referred to these women for further information or explanation regarding Iban culture. Refer to my purposeful sampling in Chapter 3.*

Sarawak in the towns of Belaga, Miri, Marudi, Limbang and Lawas (Dept. of Statistics, 2010, p. 74).

The Orang Ulu groups include the Kayan, Kenyah and related groups, the Kajang, Penan, Kelabit and Lun Bawang ("Federal Constitution of Malaysia," n.d). According to one of my interviewees, the Orang Ulu society is a stratified society, especially amongst the Kelabit, Kayan and Kenyah groups. Munan (2005) iterated that these groups are artistically inclined people. In the olden days, artistic output was regulated by the status of the person in the society. A gifted artist from the lower classes, called *pinyin*, could produce artefacts for the upper class or the *maren*. The artist, however, was compensated with special beads.

The Orang Ulu Association, Sarawak, gave me contact information for knowledge holders from the Orang Ulu communities. There were six research participants from this group, ranging from community leaders of different ranks and material culture experts to a traditional musician.

These indigenous groups live predominantly in the rural areas, as can be seen in Table 4 below.

Table 4   *Breakdown of Bumiputera population: Urban & Rural Strata*

	URBAN	RURAL
TOTAL♀	776,889	982,964
Iban	270,101	443,320
Melanau	56,044	67,366
Other Bumi*	51,223	105,213

*Orang Ulu falls under this category

♀ This total includes other Bumiputera groups of Malay and Bidayuh.

* The population of Orang Ulu in the year 2000 was a total of 87,472
 (Population and Housing Census of Malaysia 2000, 2000)

Source: (Dept. of Statistics, 2010)

4.2.2   Category 2: The Staff of Cultural Heritage Institutions

The second category of participants comprised staff from the CIs. There were in total 34 participants who held various posts as researchers, curators, and executives from six different CIs who took part in the group interviews. The pseudonyms of the CIs, and their brief descriptions, are in Appendix 3.

The CIs in the Sarawak State Civil Service were formed at different times, and have different types of governance. The oldest of the CIs was formed at the turn of the 19th Century, while the other five were established after the formation of Malaysia in 1963, i.e. one of the CIs was formed in the 1970s, two were formed in the 1990s, and another two formed in the 2000s. Each of these CIs has its own ordinance or statute to support its establishment and governance. Five of these CIs have their own board or council, and are part of the Sarawak State Civil (SSC) service, while one of the CIs was formed as a subsidiary of a state-owned statutory organization. The state government of Sarawak financially supports all of these CIs.

Table 5   The CIs' human resource capacity (Year 2017)

Agency	Professional	Non-professional	Total
Highlands	49	51	100
Hill	13	111	124
Lake	26	101	127
River	11	29	40
Sea	4	30	34
Valley	30	137	167

The table above shows the staff breakdown of the CIs. Professional staffs are degree holders, and the non-professional staffs are those with qualifications up to diploma level. Based on the number of staff, Sea has the smallest number of staff, while Valley has the largest number of staff.

Although these organizations have different missions and goals, there is one common objective amongst them, which is acquiring traditional knowledge of the different indigenous groups of Sarawak to help preserve their vanishing traditional ways of life, cultures and beliefs. Preservation of local culture, with the accompanying intangible cultural heritage (ICH), is mostly achieved through documentation and the acquisition, management and care of material culture. These organizations collaborate with the indigenous groups in acquiring indigenous knowledge that accompanies the ICH. Each CI has its own focus, for example one of the CIs focused on documenting policies relating to the *adat* or native customary laws of the different indigenous groups, while other CIs focused on the acquisition and management of records or artefacts relating to the indigenous groups. Another CI focused on the acquisition of artefacts and documentation of traditional medicine of the indigenous groups. I included this CI in the later part of my data collection, based on the recommendation of a staff member from one of the CIs.

4.3   Before data collection

To ensure that I reached the right participants from the organizations, I made initial informal contact by emailing my personal network of contacts in the respective CIs. Their informal agreement to participate in my research provided the impetus for me to prepare for the formal applications to the authorizing bodies: the Economic Planning Unit (EPU) of the Prime Minister's Department at the Federal Government level, and the State Planning Unit (SPU) at the State Government level.

Institutional ethics approvals for this study were granted by the Human Ethics Committee (HEC) of the School of Information Management (SIM), Victoria

University of Wellington; the Economic Planning Unit (EPU), Prime Minister's Department, Malaysia; and the State Planning Unit (SPU), Chief Minister's Department, Sarawak.

These approvals enabled me to proceed with my data collection. This is one of the processes that allowed me to access the indigenous communities and the CIs.

4.3.1 Preparation for organizational access

A series of courtesy calls were made to the respective heads of the heritage institutions in the Sarawak State Civil Service. These courtesy calls were one of the protocols that I had to observe to inform the key members of the organizations about my research, which enabled me to gain access to their staff. The research participants from these organizations required the 'green light' from their respective superiors before they could participate in my data gathering process.

I briefed the respective heads of the CIs during the courtesy calls regarding the purpose of my intended study and the strategies for my data collection. I provided them with a copy of the *Interview Participant Information Sheet* and the *Consent to Participation in Research* sheet (Appendices 4 and 5). We then discussed and agreed on the proposed dates of interviews, locations and the categories of staff members who best suited the criteria identified for my study.

4.3.2 Preparation for access to the indigenous groups

Taking the advice of one of the heads of the CIs, to enable my access to the indigenous groups I had to go through the Resident's Office of the respective Divisions. As mentioned earlier, the Resident's Office was the gateway to the indigenous people for my research. For example, for my research participants in Mukah, the Resident's Office assigned a District Officer to assist me. I briefed her on my research, showing the ethics approvals received from EPU, SPU and SIM, explaining the ethics process to protect the participants and the selection criteria for my potential participants. She managed to link me to two people initially, one

a *Penghulu,* and the other a *Ketua Kampung,* two ranks of community leaders (these ranks are discussed in the next section). These two informants linked me further to three other knowledge holders who fulfilled the criteria as explained to them. The District Officer also led me to another craftsperson as well as the son of a former *Pemanca* (also discussed in the next section) as potential informants. As it was essential that I went through the different levels of community leaders in the indigenous groups, I briefly describe below the hierarchy of the local community leaders.

4.3.2.1   *The Community Leaders*

Pemanca, Penghulu and *Ketua Kampung* are titles given to the various levels of community headmen[10]. The State Government, through a government circular (State, 1973), instituted the Headmen Service as an extension of the government administrative machinery at local levels. This service is arranged hierarchically (see Figure 9 below). The *Temenggong,* the paramount chief, is the head of an ethnic community in a division, the *Pemanca* is the community leader for a district, and the *Penghulu* is the community leader for a specified area. The *Ketua Kampung* is the village head. Amongst the functions as stipulated in the circular, these headmen were to be part of the administrative machinery at local levels.

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[10] *Headmen - This is a generic term applicable to both men and women, as there are women who serve as community leaders too.*

The *Temenggong* is the head of an ethnic community in a division.

Pemanca is the community leader for a district

Penghulu is the community leader for a specified area.

Ketua Kampung is the village head
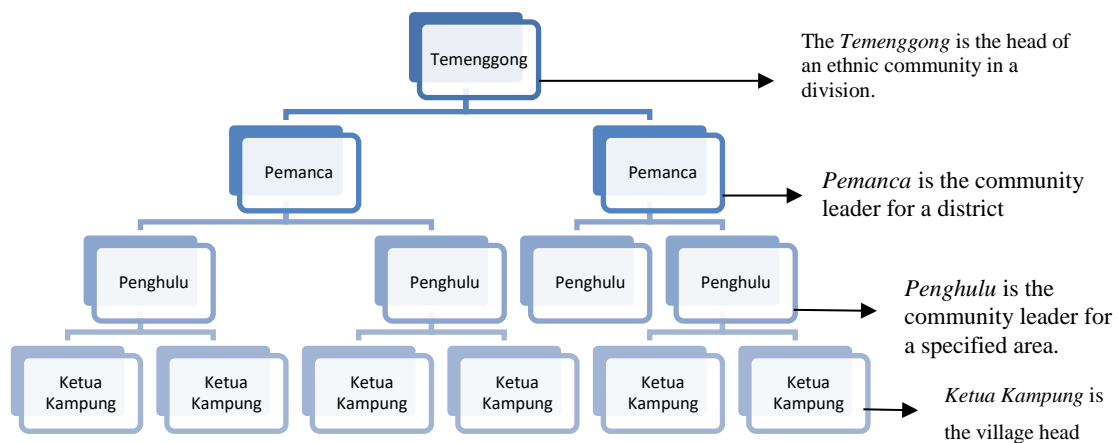
Figure 9   *Hierarchies of Community Leaders in Sarawak*

For example, one of the research participants was a *Temenggong* who represents an indigenous group. The population of this group lives in 212 villages. Hierarchically, this *Temenggong* has jurisdiction over 21 *Pemanca/Penghulu* and 212 *Ketua Kampung* or village headmen.

During a courtesy call and a short interview with the head of a CI, I was given guidelines on what to do and how to approach the indigenous groups for my impending interviews. The guidelines given were in accord with the guidelines mentioned in Roulston (2010) and in Smith (1999). Both Roulston and Smith advocated that a researcher working with indigenous communities as her/his participants has to observe the cultural norms or specific ethical protocols required by the groups or the participants of the study. Smith (1999) reiterated that when a researcher works with indigenous peoples, s/he has to be aware of "culturally specific protocols of respect and practices reciprocity with those involved in the research" and to exhibit appropriate behaviours and deportment while conducting the interviews.

This informant further advised me to understand and be aware of the kind of conversation that I was to carry out during the interviews. I had to understand my status as an outsider; my gender and age too were factors that could affect the

interview sessions with the potential participants. Basically, my status was that of a person who is requesting something from the research participants, and in this case, that *something* was their knowledge, which formed part of the data and information needed for my research. The informant also mentioned that due to the nature of my research, I might encounter certain aspects of spirituality in local practices that would be mentioned or highlighted during the interview. In this aspect, knowledge sharing practices in the communities also have to adhere to certain sacred or religious protocols.

4.4 My travels

My travel itineraries to visit the research participants were based on their availability at the most accessible place, as well as my own time and travel resource constraints. One contact informed me that the best time to approach participants from the indigenous groups was on weekends, as most days they would be at their farms (personal email, Oct. 2010). When I was in the process of scheduling the interviews, as much as possible I allowed the participants to choose the place(s) most convenient for them. However, I also made sure that the locations made it easy for me to do recordings. For example, with the Iban group in Sibu, we agreed on having the initial interview at the hotel where I was staying. So I made a booking for a meeting room to enable me to get the most out of the recordings without interruption from other noises. After the initial interview, the next interview with the same group was held at the house of one of the participants, as they needed to show me the artefacts related to their stories and to meet with another knowledge holder who was a point of reference on Iban traditional culture.

This process also happened during my interviews with the Orang Ulu participants. We agreed on having the interview in a discussion room at one of the CIs in Miri, and the subsequent interviews were held at a participant's home. This arrangement was necessary for them to show me their cultural artefacts related to their ICH, and also to provide me with the opportunity to meet with other

knowledge holders. With the Orang Ulu and Iban groups, the knowledge holders were headed by the *Temenggong*. They brought along with them several other knowledge holders during the interviews.

The *Temenggong*, while they serve the communities in their respective rural areas, also have their residential houses in the towns. These community leaders usually have a working space or hot desk at the Resident's Office to carry out their administrative duties, or for when they attend meetings with the Resident's officers. Therefore, I arranged my meetings with the Temenggong at the Resident's Office when they were in the towns of Sibu (for the Iban group) and Miri (for the Orang Ulu group) respectively.

The interviews with members of the indigenous groups were supposed to be one-to-one, but sometimes they became group interviews with two and sometimes up to six people present. There were several reasons for this. For example, prior to an arranged interview, a knowledge holder from an indigenous group would ask if it was possible to bring another person as a support, or to make a correction if the wrong thing was said, or if reaffirmation or confirmation was needed on what was mentioned in the interview.

In Mukah, for the Melanau participants, the DO allowed me to use one of their meeting rooms for the initial group interview with the two community leaders. Once I received the leads to other participants, subsequent interviews with other Melanau participants were mostly on a one-to-one basis, held at the participants' respective homes. The interviews with the local traditional healers were held at their homes at two different *kampung.* One of the healers, who was also one of the people who acted as a point of reference for the Melanau *adat* or customs, specifically requested for the interview to be held after 3:00 p.m., when he was free from doing healing sessions with his patients. Another interview was held at the Kaul Festival site at the seafront. I was unable to interview the *Pemanca* in Mukah as there was a flood in Mukah due to the monsoon season. The place where the *Pemanca* resided was water-locked, and land transportation to and

from his place stopped, except for water transportation, but I was advised against travelling there by the District Office for safety reasons.

My interviews with participants from the CIs were arranged at their respective organizations. Five of the CIs were in Kuching, the capital of Sarawak, and one in Miri. Thus, the interviews were arranged based on the availability of the research participants. One interview I had with the head of one of the CIs continued when I travelled with him and his group to a rural area in Lawas as part of their documentation process in one Orang Ulu community. So my travel for data collection was not linear, and I crisscrossed Sarawak in a series of trips (see Figure 10 below).
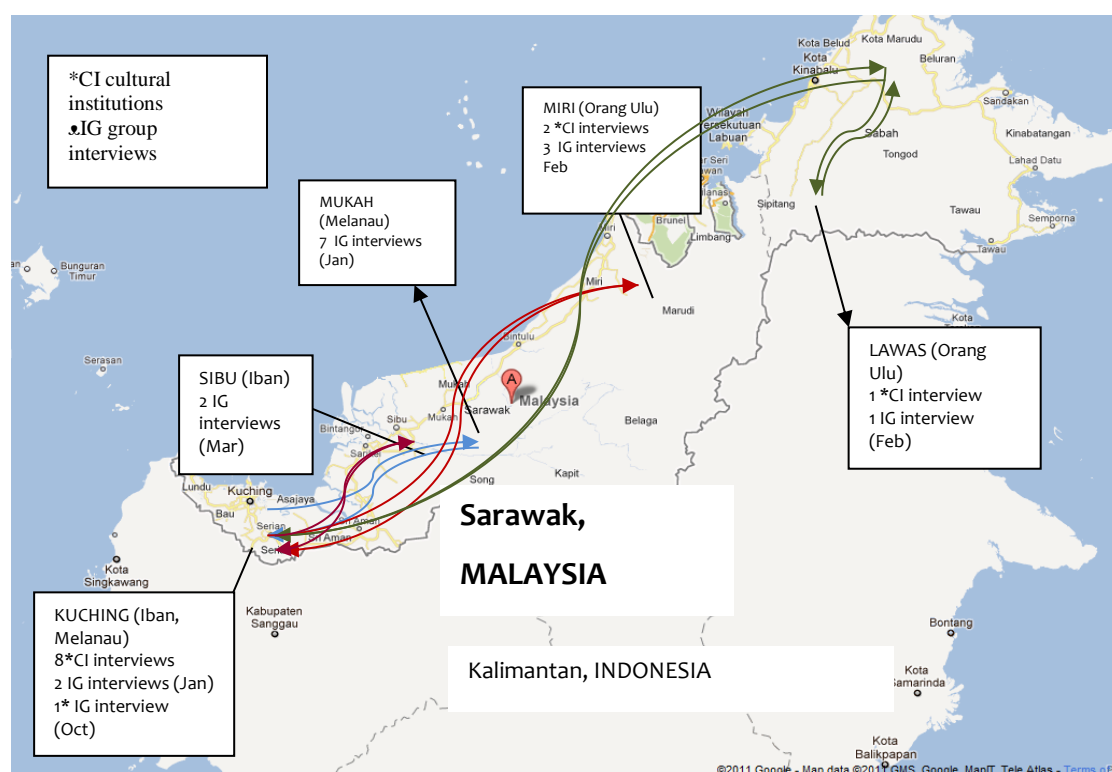
Figure 10   Map of Sarawak: My travels.

Map source : Map data @ 2011 Google
http://www.google.com/maps accessed 22 Sept 2011[11]

4.4.1   My travel stories

My travels took place during the monsoon season (heavy torrential rains and thunderstorms), and the holidays of the Chinese New Year. My first trip was to Mukah, a 40-minute flight from Kuching where I was based. I took a 19-seater Twin Otter plane from Kuching airport, where sometimes fellow travellers could be a crate or two of live chicks, or a box of fish from the sea. Twin Otter planes are still being used in Sarawak, as these planes require shorter runways because most rural towns are in valleys between hills and mountains, or near a river mouth. The airfields are mostly managed by the locals, including checking in the passengers and managing the arrivals. Each passenger has to be weighed, with their luggage, as these planes have limited allowable weights for safe travel.

Travelling in the monsoon season could be problematic as heavy rain and thunderstorms could delay or halt travelling plans. On the day of my flight to Mukah, the flight was almost cancelled. There was a heavy thunderstorm the night before and a bigger aircraft had skidded on the runway, and the airport was closed for most operations that day. Only small and light aircraft were allowed to operate, and my flight was able to take off to Mukah. Mukah, being a seaside town, was flooded when we arrived. My interviews in Mukah were confined to those in the towns and the accessible villages. As mentioned earlier, I was unable to interview one *Pemanca* due to the floods.

With the help of a researcher from one of the CIs, who was my link to the Melanau participants, I managed to do seven interviews (with eight people) with Melanau knowledge holders at different places. Based on his research experience in Mukah, the best way to get the commitment of those knowledge holders was to get the DO to assist in making arrangements for my interviews. The local people were helpful in assisting to locate people who they thought could be suitable research participants. The DO allocated one of their officers to accompany me when we went into the respective villages. Besides being the interpreter, the officer was also my *passport* (so to speak) to access the knowledge holders, as she was someone with whom they were familiar. She was

also the 'green light' indicator to show that I had gained permission from the respective authority, which was the Resident's Office, to be in the village to conduct my study. This made it easier for me as the knowledge holders were more cooperative than they might otherwise have been.

The knowledge holders lived far apart from each other. We (the District Officer, my assistant[12] and I) went to their respective homes. The role of my assistant in my study was basically for logistical purposes, as my navigator and driver, as well as helping me with the recordings of the interviews. I conducted all the interviews with the participants.

During the past ten years or so, village roads have been constructed in Mukah, so we did not have to use a boat to get from one *kampung* or village to another. Thus, travelling in Mukah itself was quite easy. In one particular instance, the *Penghulu* and a *Ketua Kampung* were interviewed together at the DO. Moreover, when the DO made the arrangements for the interviews, the knowledge holders were the ones who determined the time for us to go to their respective places.

The rainy season in Sarawak normally abates after the Chinese New Year, and I made plans to travel to Miri just after the Chinese New Year celebrations. However it was still raining then. I was lucky that I did not have to travel further into the interior to interview the *Temenggong*[13], as he was in Miri then for his official duties. Our meeting was arranged to take place in Miri. The *Temenggong* brought with him one *Penghulu*, and also one of the female leaders. Thus the interview I had with him became a group interview. The other leader became the interpreter, as there were times during the interview when the *Temenggong* became excited, and he automatically spoke in his own language.

The Orang Ulu informants were very willing and eager to share their thoughts and experiences of sharing their traditional knowledge. They acknowledged that with the arrival of proselytizing religions in their communities, many of their traditional

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[12] *He was one of my colleagues. SIM Ethics Committee approval was acquired for this person to assist me with these interviews and his consent is in Appendix 6.*
[13] *Community leaders, i.e. Temenggong, Pemanca, Penghulu and Ketua Kampung are officially appointed, and they are provided a work space at each Divisional Resident's Office.*

ways of living, and aspects of their culture and beliefs, had eroded. They are now actively reviving their traditional ways and identity, especially in matters that were not in conflict with their religious beliefs and practices. They welcomed collaborations with researchers and heritage institutions that could help them document their heritage. They feared the total loss of their traditional knowledge. Within their own communities, they had put in place action plans to reinstate cultural rites and traditions, initiatives through which they could share and hand over their knowledge to the younger generation. This was an interesting insight, as it was generally believed that indigenous people were sometimes reluctant to share their knowledge.

The Orang Ulu have a caste system within their communities. Each caste has different rites, laws and rituals, including different types of ICH that accompany their respective ceremonial rituals. The common comments that kept arising in these interviews were that the cultural items or ICH in heritage institutions were not accompanied with enough explanation or background information. The interviewees were very concerned about their dying knowledge, as those who practised the traditional knowledge were the elders, but even then only a few elders were still practicing it. Some knowledge holders, due to religious reasons or modernity, felt there was no need for them to practise their traditional ways of living anymore.

The most adventurous of my trips was to Long Sukang. My assistant and I took a one and a half hour flight from Kuching to Kota Kinabalu (the capital of Sabah, the other Malaysian state in Borneo). From Kota Kinabalu, we rented a four-wheel drive car, and drove three hours to Lawas, the northernmost town of Sarawak, situated near the Sabah-Sarawak border. Once we arrived in Lawas, we waited for the head of Hills, one of the CIs, and his archaeological team, for their road trip to Long Sukang.

It was during my interview with him that he invited me to join his team on one of their archaeological survey field trips to gather indigenous knowledge pertaining to the monuments and effigies of crocodiles. This was an opportunity for me to

observe how a heritage institution worked with the indigenous groups in acquiring knowledge from them. I observed the cultural protocols of entering the village, and the salutations used when the head of the delegation addressed the village head. The interviews with the village community had to be held at appropriate times. Our team brought our own food, which we shared with the villagers during dinner meal times. The head of the CI informed me that this food sharing session is the essential ice breaking session with the knowledge holders, and a good time to brief them on the purpose of the research, and subsequent dinner times during the stay were good opportunities to debrief the knowledge holders on the research activities during the day, do member checking and obtain further interpretations, if necessary.

The 39km trip to Long Sukang from Lawas took us almost three hours to drive through the earthen timber tracks, which had their own road track rules. These earthen roads were built by the timber companies for bringing logs out of the forest, and are usually poorly maintained. However, without these roads, according to the Long Sukang *Ketua Kampung*, it could take three days to travel from Lawas to Long Sukang by foot. On fine days, the roads were dusty, and the rising dust from vehicles in front could blur a driver's vision. If it rained, the road became muddy, slippery and treacherous as these are hilly roads, built according to the contours of the hills. *Long,* in the Orang Ulu language, means the mouth or the estuary of a river, and a place of residential settlement is normally named after the river.

We stayed at the *Ketua Kampung's son's house.* The village, situated 374m above sea level, just next to a pristine running river, has 60 houses and the community has about 350 inhabitants. Unlike the Iban communities who live in longhouses (which have at least 30 doors, indicating there could be at least 30 families living under one roof), the Orang Ulu communities in the highlands live in individual houses. When I asked the reason for this difference, one of my informants mentioned it was basically for fire safety reasons. When we arrived, it was already dusk. The temperature was cool for a tropical place such as Sarawak.

Generally, in these small rural villages, water is supplied from nearby rivers or from rain collected in tanks. Electricity is produced from a generator, which would normally be switched off by 10 or 11 o'clock every night. The price of fuel is very high in these places due to the difficulty of transportation and electricity would only be used in the evenings, mainly for lighting purposes. There are basic facilities, such as a primary school, a small clinic with medical attendants running it, a community hall, and a small chapel or *surau* (a smaller version of a mosque), depending on the religious affiliation of the community. For small villages such as the one I visited, one primary school catered for several nearby villages too. However, once the school children reached secondary school age, they would be sent to boarding schools in the bigger towns nearest to their village. Able-bodied men usually find jobs at the logging camps or in the bigger towns. Thus, the inhabitants of these rural villages are generally the young children up to primary school age, the women as caregivers, and the elderly. This gap in ages is an element that affects knowledge sharing processes in the indigenous communities. The Orang Ulu community leader shared this concern.

This Orang Ulu leader was also concerned by the migration of his people to the urban areas, because the number of those who migrated and had not come back to the village was on the rise. For the last 60 years or more, the rural people of Sarawak have moved to urban areas, searching for opportunities and facilities which are limited at their remote locations. This movement has affected the practice of traditional cultures. Indigenous knowledge inherent in the traditional culture of these people is becoming depleted. All three indigenous groups selected for this research – Melanau, Iban and Orang Ulu – voiced their concerns about this phenomenon.

4.5   Summary

In this chapter I discussed the setting of the research and the pre-data collection processes. It has been necessary for me to share the stories of my fieldwork to explain how I gained the participation of the indigenous communities as part of my research approach. The next two chapters, Chapters 5 and 6, present my findings. Chapter 5 focuses on the narratives of the indigenous participants, while Chapter 6 highlights the stories of the participants from the CIs.

Chapter 5   *Knowledge Sharing Ways of the Indigenous People*

5.1   Introduction

In this chapter I discuss indigenous knowledge based on the interviews with representative key people from the three indigenous groups selected for this study. Participants were men and women from the Iban, Melanau and Orang Ulu groups, and included paramount chiefs, community leaders, healers, craftspeople, a musician, a master weaver and other recognized knowledge holders. They are identified in this chapter by pseudonyms and are listed in Appendix 7.

In this chapter, I address my first research question:

> *RQ 1: What is the nature of knowledge and knowledge sharing within the indigenous communities of Sarawak?*

In the first section, the narratives from the participants illustrate the nature of knowledge that is shared amongst the indigenous peoples and the main ways in which this knowledge is shared.

In the subsequent section, I highlight the narratives on the cultural requirements of knowledge sharing in the indigenous communities. The indigenous communities have constraints, protocols and taboos on sharing their knowledge.

In the final section of this Chapter, I explain the abstraction of my findings using a tiered model.

5.2 The nature of indigenous knowledge and the indigenous ways of knowledge sharing

From my analysis of the narratives, I have identified three main types of indigenous knowledge and the ways of knowledge sharing used by the indigenous people:

(i)   Public or communal knowledge, which is open for all members of the community to acquire; this is a basic type of knowledge and is similar to what Johnson, Lorenz and Lundvall (2002) called *know-what*, i.e. knowledge that "is close to what is normally called information" (p. 250); know-what includes task-related knowledge that is objective in nature (Ipe, 2003, p. 341).

(ii)   Life-skills knowledge, which needs apprenticeship to acquire. Johnson, Lorenz and Lundvall (2002) labelled this type of knowledge as *know-how* because it "refers to skills – i.e. the ability to do something … [and] may be related to the skills of artisans and production workers" (p. 250); know-how includes experience-based knowledge that is subjective and tacit (Ipe, 2003, p. 341).

(iii)   Sacred knowledge, which is restricted to a select few. Johnson, Lorenz and Lundvall's third type of knowledge which they called *know-why* is somewhat related, though there are obvious differences. This type of knowledge "refers to knowledge about principles and laws of motion in nature, in the human mind and in society" (p. 250).

The following sub-sections expand on the nature of indigenous knowledge and the mechanisms used to share this knowledge.

5.2.1 Public or communal knowledge: know-what

The narratives from the participants highlighted a general or common trait of the indigenous people of Sarawak, i.e. they still practise communal living, especially in the rural areas. The elders impart knowledge related to essential life skills as a

duty to family and community members. Such knowledge is public or communal knowledge. I discuss several aspects of this knowledge in the following subsections:

5.2.1.1: The *ruai-randau* concept of knowledge sharing of the Iban

5.2.1.2: Embedded knowledge

5.2.1.3: Stories shared: beads as a social class indicator

5.2.1.4: A tiered society

5.2.1 *The ruai-randau concept of knowledge sharing of the Iban*

A narrative from an Iban paramount chief, Adrin, provides a good illustration of how such common knowledge is shared in the Iban communities who traditionally live communally in longhouses. He explained how in one longhouse there could be as many as fifty doors, each door leading to one family's living quarters called *bilek*, which normally would have two to four bedrooms, as well as kitchen and dining areas. Fifty doors indicate fifty families living together under one roof. Each family may consist of five or more family members, depending on how extended the family is. Below in Figure 11 is my simple illustration of a longhouse floor plan.

| verandah |
| *ruai* |
| **Bilek** FAMILY 1 | **Bilek** FAMILY 2 | **Bilek** FAMILY 3 | **Bilek** FAMILY 4 | **Bilek** FAMILY 5 | **Bilek** FAMILY 6 |
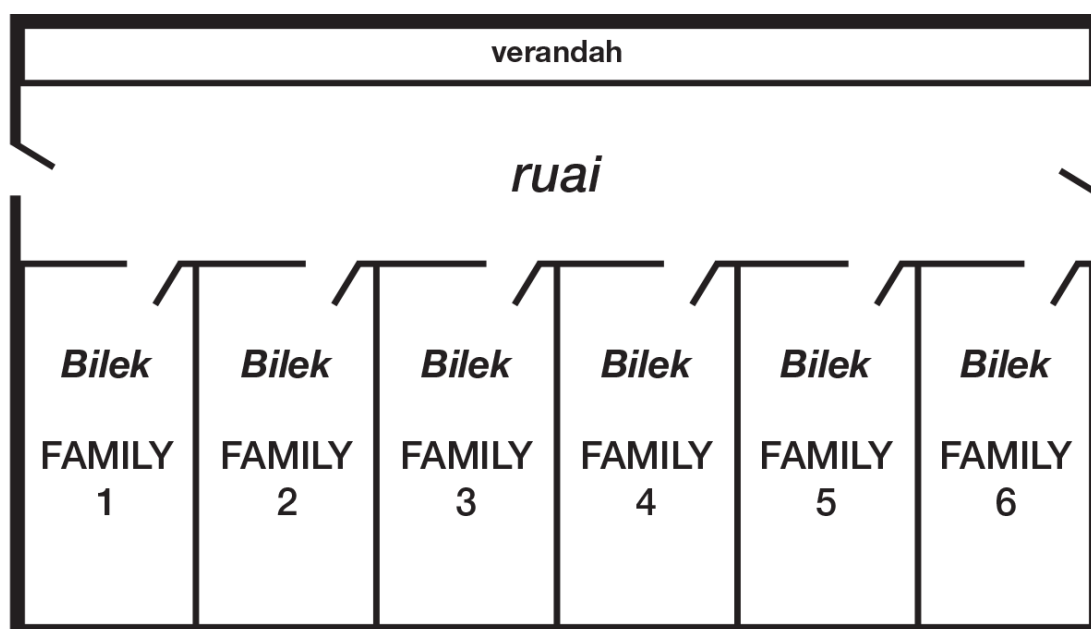
Figure 11   *A simple floor plan of an Iban longhouse.*

Adrin added that the layout of an Iban longhouse is akin to a row of terrace houses, but in front of these separate *bilek* or rooms there is an un-partitioned public gallery or space for the common use of all in the longhouse, called the *ruai*.

> The Iban communities usually have *berandau*, or sitting around sessions at the *ruai*, the common space in the longhouse. It is during *berandau* times that the elders share knowledge on beliefs and rituals such as those used for the purpose of building houses, fishing, and funerals. The elders always share with the young ones during their *ruai* times. The *berandau*, or sitting around at the *ruai*, is one of the times where they share their knowledge within the community, or to whoever comes to seek knowledge from them. It is also during the *berandau* they catch up with community news, where the *tuai rumah* informs his community of the goings-on in the *rumah panjang.* (Adrin)

Adrin explained that during the *berandau* gatherings, communal participation agreements or *gotong royong* were normally initiated. The participants of the gathering would agree on collective, team efforts in carrying out the preparations and the processes for communal events. Adrin added it is usually during such gatherings that the sharing and transfer of common knowledge occurs. From Adrin's explanation, I recognized that it is during such socialization amongst the community members that knowledge sharing occurs.

Adrin further explained about communal events:

> The Iban living as one big community in one longhouse, we usually do communal events in a *gotong royong* manner. We do preparations and celebrating together the rites for passage-of-life events, preparing for ceremonies such as welcoming a new baby, betrothal, funerals, or the commencement of building a new *bilek* extension to the long house. There are events that also include community celebrations that are connected to beliefs and legends. These events usually require the total involvement of community members, young and old, from across the community's social structure. (Adrin)

The *ruai* or the common area or gallery is usually used for community gatherings. It is the main public space in the longhouse for community events, a time for the sharing and exchange of common knowledge. From this narrative, I have termed

the Iban way of knowledge sharing the *ruai-randau* concept, which I expand further in the next section.

Adrin's earlier statements above, regarding how the elders in the longhouse usually meet and discuss the daily goings-on at the *ruai* space to carry out their *berandau* or community discussion sessions, helped me to identify the *ruai-randau* concept of knowledge sharing in the Iban community. Adrin added that the *ruai*, as a common shared public space in a longhouse, is usually used for weddings, communal festivals or funerals.

Rinain, another Iban participant, added to Adrin's story.

> The *ruai* is the communal area for *sharing* of knowledge, story-telling sessions, for the meetings of the elders. The grandmothers also share their knowledge on the *adat*, on manners, especially to the younger girls. Grandmothers share knowledge about Iban legends, such as the couple of *Keling and Kumang,* using *ensera,* storytelling through songs. *Keling* was a man, brave and a hero, and Kumang was the most beautiful girl, a master weaver with magical powers. In doing the *ensera*, it is not just about the content of the story, but also the singing way of delivering the story. (Rinain)

The Iban participants emphasized their culture of sharing such life skills knowledge in a collective and communal way.

The Orang Ulu also practise communal knowledge sharing. Libet, an Orang Ulu informant, who is also a community leader, provided evidence of the knowledge sharing ways within her community.

> We share our knowledge on medicine, animals, and our *adat* or native customs by talking to our *anak buah* or community folks, but the main focus is on our *adat.* We revived our old practice of getting the *ketua kampong* or village headmen to talk about these matters on a regular basis, by telling stories, lest the younger generations forget about our roots. (Libet)

Libet's story above emphasized the role of the village headmen to share the know-what of their culture repeatedly, so as to ingrain the know-what of Orang Ulu's *adat* amongst their community.

5.2.1.2 Embedded knowledge in intangible cultural heritage (ICH): as social status indicators

My interviews with the other participants highlighted indigenous knowledge richly embedded in the ICH. An example that I use is the tangible material culture that carries identity or social status indicators. One of the stories shared by the Orang Ulu participants was regarding the use of hornbill feathers as a status indicator. The Orang Ulu use hornbill feathers in the men's ceremonial hats to indicate the different classes or strata among people within their community. These hornbill feathers, as ICH, contain knowledge about a person's status in the Orang Ulu community. Padeng, an Orang Ulu informant, shared his story to elaborate on this point.

> The Orang Ulu has a class system, where the number of feathers in a man's ceremonial hat indicates the symbol of his societal hierarchy. The highest stratum in the caste is the *Maren naya''*[14] followed by the *Ipun umak uk*, inner circles or relatives of the *Maren naya'*. Then the next strata is the *Panyin aya'*, the high-class community members, followed by *Panyin unyen*, the ordinary people. The bottom of the strata is the *Dipan* or the working serf. We use the hornbill, as it is the most noble of the birds in this region. We consider it as the king of the birds. We are not allowed to kill this bird. But, according to stories, if we accidently kill the bird, and if we do not use the feathers, the bird may appear in our dreams, angry, as to why its feathers were not used. As such, due to the nobility of the bird, and the difficulty in getting its feathers, supposedly, only the king of the *Maren* can use the feathers of this bird in his hat. For the *Maren*, four feathers is the minimum number. The number of feathers will increase upon each appointment of responsibility and authority [either by the community or by the government] bestowed upon the *Maren*. For example, one additional feather (five) denotes that he has been appointed as the *ketua kampong* or headman. The number of feathers increases with additional responsibilities or appointments, to a maximum of sixteen. (Padeng)

Padeng added that during communal public events, the headmen of the Orang Ulu are usually dressed in traditional attire, complete with their ceremonial hats adorned with hornbill feathers.

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[14] *An apostrophe after an indigenous word denotes a type of accent mark for pronunciation.*

And this is for all in attendance to see, and to take note of the importance of the hornbill feathers, of how the feathers are to be worn, and who can wear them. (Padeng)

The Orang Ulu participants agreed that to ingrain such knowledge in the minds of the community requires a conscious effort from the community members to share and embed such knowledge within the community. The participants felt strongly that such effort is a shared responsibility of the community members. Such knowledge is shared either by involving oneself, participating in community events or merely observing the events. To them, presenting or sharing such knowledge publicly makes the knowledge open to all such as common facts that are essential for the community to know. Such knowledge is being shared proactively, i.e. it is shared regardless of whether it is requested. Observing these events provides the community with shared common knowledge for everyone.

Libet also stressed that such public sharing of knowledge allows the Orang Ulu community to know who the knowledge holders are in the community. It provides the community with the knowledge of *who knows what* as well as *who knows who* in the community and *who knows what to do*. Libet was of the opinion that it is essential for members of the community to know the people who are the points of reference in the community, to lead those who are interested in the next type of knowledge, i.e. the know-how of knowledge.

5.2.1.3   *Stories shared: Beads as a social class indicator – a know-what example of knowledge*

The participants continually stressed the importance of storytelling as the most common way of knowledge sharing and/or transfer amongst the indigenous people. They acknowledged their oral traditions in passing on what they know of their culture. As an example, I share the following story by Padeng regarding the significance of beads in Orang Ulu society.

Beads, as a kind of ICH, are common amongst the different indigenous groups in this study, but they have different contextual purposes and meanings. According to Padeng, this story has always been shared amongst the Orang Ulu community.

This story is about how beads, as a type of ICH of the Orang Ulu community members, carry embedded indications of the societal status of the person who wears them.

> There was a group of Orang Ulu called *Kayan Ka'ai*. They were hunters. One of them had a dream, with a message that asked him to go to wait for pigs swimming in the river the next day. He was to choose the one in the middle, which would have a leaf in its mouth. He was advised to get that pig and kill it, but he was not to cut it up in the forest. He had to bring it home and gut it. So, this guy went to the river, and indeed, there was a group of pigs swimming. With his companions they managed to catch the pig that had a leaf in its mouth. They killed it, and brought it home, and gutted it, and found beads in the stomach. But they found another type of bead in the pig's heart. That night, he received a message in his dream that the beads from the heart are called *lukut sekala,* and those beads were to be kept for the *maren uma*, the highest of the Orang Ulu clans. No other clans could have these beads; it is considered *tulah*, and i.e. a curse could happen to them. (Padeng)

Padeng's story above reflects the origins of the different beads' qualities. The beads that came from the heart are more important than the beads that were in the stomach. Padeng emphasized that this is still being practised amongst the Orang Ulu who use types and categories of beads as status indicators.

> The highest grade of the beads are called *lukut sekala, [with a]* monetary worth equivalent to 2000[15] *ringgit*[16], followed by *lukut sekala doh* worth 1000 *ringgit, lukut belak* worth 800 *ringgit and lukut selibau* worth 500 *ringgit.* The *lukut sekala* was also used as one of the compensation items, beside *tawaks or* gongs and *parang ilang,* the ceremonial machete of the Orang Ulu, for seeking forgiveness from one of the quarrelling parties or tribal wars in the olden days. Only the *maren* can own *lukut sekala.* For us, this is the item that we keep in our safety box, not money, as this bead has become so rare now. We can find money, but it is not easy for us to find some more *lukut sekala.* Only the experts in the Orang Ulu community can identify the *lukut sekala.* This type of bead is to be kept within the family as heirlooms. In my family, between my siblings, I was chosen by my mother

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[15] *The monetary worth quoted here was the value of the beads during the interview in January 2011. Exchange rate NZD (New Zealand Dollar) $1 = RM (Ringgit Malaysia) 2.85 on 27 Feb 2018. source: http://www.bnm.gov.my/index.php?ch=statistic&pg=stats_exchangerates*
[16] *Ringgit-Malaysian currency.*

to inherit it. I would have to choose carefully amongst my children as to who can inherit it from me later. (Padeng)

To prove this matter, Padeng shared another story about a woman who wrongly owned and used the *lukut sekala*.

Now, about 40 years ago, there was a woman, who was not from the *maren* clan, but her family had the *lukut sekala* in their possession. She had not been well for a long time. After she heard this story, she gave the *lukut sekala* to one of the *maren*. And she became well after that. (Padeng)

I had a series of interviews with Padeng, and during one of the subsequent interviews, he and his group showed and shared with me how to identify and differentiate the different *lukut* beads. To my uninformed eyes, the beads look almost similar. These beads are used in making necklaces, both for men and women *maren*. The beads are also used to make belts, mostly worn by women *maren*. He also showed me how to observe the placement of the *lukut sekala* beads in stringing the necklaces and the belts. Due to the limited availability of the *lukut* beads, other types of beads and bird or animal-derived artefacts such as beaks, claws, and horns are used in the necklaces or belts.

Padeng's stories above relate the common nature of knowledge regarding beads as an ICH amongst the Orang Ulu, the origins of their beads, the importance of beads as social status indicators, and the consequence of misuse of the beads in their society.

The Melanau provided similar information that knowledge holders and common knowledge objects used by the Melanau communities are shared orally during communal gatherings. One of my Melanau participants, Kanikie, a knowledge holder, shares his knowledge of the Melanau traditions during communal gatherings. The Melanau usually have meetings of the council of elders in the community. The members of the council, as well as the Melanau community, usually ask Kanikie to confirm certain aspects of their traditions. He told me how the Melanau shamans use their healing beads in their traditional healing processes.

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The beads, which were being used by the *bomoh* or shaman during the *abayoh* or traditional healing of the Melanau, were actually sacred beads. These beads are no ordinary beads; they are only to be used by the shaman for the purpose of gathering supernatural powers in the healing processes. As these beads have supernatural powers 'attached', thus they are considered sacred. Only the shaman with such knowledge can touch these beads. (Kanikie)

Such sharing of knowledge informs members of the Melanau community about the role of beads. The role and authority of the shaman is also being made explicit. However, the knowledge on the use of the beads to invoke powers to them is only known to the shaman.

Narratives, such as those illustrated above regarding the beads as status indicators of the two different indigenous groups, are made known and accessible to the community members. Based on these stories, in the Orang Ulu community, adorning oneself with beads is a symbolic way of sharing knowledge about one's status in their society. Another way of sharing their knowledge is by telling stories to family members and the community about the knowledge embedded in the beads. These two ways are complementary, combined methods of knowledge sharing and transfer amongst the indigenous communities. This combination of knowledge sharing strategies is used continually to embed and reinforce status-related knowledge for deeper understanding within their communities of the different societal statuses and associated authority.

5.2.1.4   Tiered society

The Melanau have a tiered society too, as explained by Koteng, who is a traditional healer and another point of reference for Melanau *adat* or native customs.

The Melanau have a three-tiered societal structure, called *pikul.* The tiers comprise nine *pikul,* seven *pikul and* five *pikul,* with nine being the top of the hierarchy. Although *pikul*[17] in the olden days was used as a weight term, in this case *pikul* does not have any weight connotations associated with it.

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[17]*1 pikul = 100 katies; 1 kati = 0.59 kg; 1 pikul = 59 kg (Kathirithamby-Wells, 2005, p. xxviii).*

For example, in the olden days, the common form of dowry for marriage for the nine-pikul clan would be in the form of nine brass cannons or other types of brass ornaments. In the absence of such ornaments, now it is replaced by monetary value. Although the value now is still under discussion by the Melanau elders, as a guideline, the dowry for a girl from a nine-pikul clan is a minimum of 250 *ringgit.* During the engagement, it has to be made known what the requirements for the different levels of the caste are. (Koteng)

The common knowledge, or the *know-what* in a community, is composed of known facts. These facts are emphasized by continuous storytelling, such as in the narratives regarding the status and authority of the different societal strata and protocols in the indigenous groups.

Likewise, for life skills knowledge, another form of common knowledge sharing is conducted in a collective and communal way through oral transmission across the community. This helps to spread and preserve the knowledge in the minds and in the practices of the communities. From the narratives, such common knowledge can be categorized as *know-what*, i.e. basic but essential knowledge. Moving on from this basic knowledge is the *know-how*, which I report in the next section.

5.2.2   Knowledge sharing through apprenticeship: know-how

The narratives indicated the need for a person to live communally in order to expand his or her know-how knowledge. Such knowledge encompasses the life-skill type of knowledge e.g. related to everyday life skills, such as husbandry, weaving, fishing, hunting, and carpentry.

5.2.2.1   *The tangible cultural heritage*

Acquiring *know-how* requires a person to observe and learn while working with the knowledge holder. From the participants' data, know-how knowledge is not just shared through telling stories or other forms of oral transmission: it is also transferred to a person by being an apprentice to the knowledge holder.

As emphasized by Kanikie, a Melanau informant, the ways of sharing this type of knowledge are straightforward when the knowledge does not require any kind of rites or rituals. He gave the example of the process of making a *parang* (machete).

> One can learn making a *parang* by watching and learning from *another parang* maker. He will be under the watchful eyes of the expert *parang* maker. If you do this every day, the *parang* maker will teach starting from the basics, until you become good at making *parang.* (Kanikie)

From his statement, knowledge is shared and transferred by repetitively following the steps of the experts in making the *parang*. Such shared knowledge is being put to practical use. According to Kanikie, *parang* making is an example of a straightforward knowledge transfer, and what he meant was there is no need to seek spiritual or divine assistance, no rituals need to be observed, and the learning is not restricted by criteria such as age, gender, time or social status.

In another example of observation and practice of knowledge sharing, I provide a narrative from Hamina, a Melanau participant who is a knowledge holder in the making of the *terindak,* a type of hat worn by the Melanau. I was observing her skilfully making the *terindak*, as well as interviewing her.

> We Melanau use the *terindak* for various occasions: to work in the field, or when we go fishing, as well as when we attend our ceremonies. One has to learn by observing and practising with a *terindak* maker if one wants to learn how to make *a terindak.* The stages in the making of the *terindak* are: selecting the types of raw materials to be used, processing the raw materials, choosing the colours, weaving the leaves and completing the finishing touches of the hat. There are different types of *terindak* depending on use, and thus, different raw materials are required. The *terindak* designs range from just a simple, utilitarian design, which we use in carrying out our daily life activities, to those with elaborate design pieces that are used for ceremonies. We also make *terindak* as decorative items for our homes. To us, the *terindak* is our identity. (Hamina)

The *terindak,* as tangible ICH, is a knowledge object that carries the Melanau cultural identity. The examples above, i.e. the *parang* and the *terindak,* are of knowledge sharing in the making of tangible ICH.

In the Iban community, weaving of baskets, mats, or *pua* (a textile ICH of the Iban), is usually carried out in a group, as stated in Rinain's story below.

> For us women, we use the *ruai* for our groups to make baskets and mats. Usually in a longhouse, you can see a row of women weaving the *pua* at the *ruai.* These activities require us to work in groups, for us to observe and learn from each other. (Rinain)

The examples mentioned above — the weaving, *parang* and *terindak* making — show *know-how* knowledge is shared not just through oral transmission, but requires apprenticeship. Knowledge of the process of making these forms of ICH is shared with the seeker through observation and learning while working or doing it with the knowledge holder.

5.2.2.2 *The intangible cultural heritage*

In this section, I share the stories about the sharing of different forms of ICH, e.g. the making of music using *sape (*a guitar-like instrument made from a tree trunk) and the application of music during the performance of an Orang Ulu dance. An example of knowledge sharing for ICH is in the interview data with Sagau, an Orang Ulu informant and musician. In the Orang Ulu community, the playing of the *sape* usually accompanies ceremonial events.

Sagau shared with me how the elders in his community transferred their *sape* playing knowledge to him.

> I learnt playing the *sape*, first, by listening to my father after every dinnertime when I grew up. Eventually, I joined an Orang Ulu dancing group, and from there, I learnt the *sape* by observing other veteran *sape* players. *Sape* legends like Irang Lang [an accomplished *sape* player] played the *sape* from their 'inside': they knew the basics, created their own melody impromptu but still within the rhythm. I learnt by listening to his music, and that is the traditional way of learning. I went to some villages where there were good *sape* players, and they were very willing to teach and share with me their knowledge, ranging from the types of wood that can be used for making the *sape,* how to make a *sape* and the music of the *sape.* There are no formal musical notes for *sape* music, such as *do-re-mi,* but to help this music live, I am compiling their tunes, which is no easy task,

as *sape* does not have fixed frets. One has to move the frets while playing the *sape* in order to produce the notes, unlike a guitar, which has fixed frets. (Sagau)

From Sagau's narrative above, he is trying to code *sape* music using known or formalized Western notation, as an effort to preserve this indigenous music knowledge. This is a form of knowledge creation, combining his knowledge of this traditional music with another form of knowledge, i.e. formal Western musical notation.

According to Sagau, it was important for him to learn from the master knowledge holders, and in that way, they shared and transferred their tacit knowledge to Sagau in order for him to get the rhythm of traditional Orang Ulu music. Sagau stressed that little of the Orang Ulu music has been documented. He gave an example that when playing the *sape* to accompany dancers, the *'sampei'* or the strumming of the *sape* strings varies because the tempo depends on communication between the *sape* player and the dancers.

> In my experience, I learn this music under a *sape* master. Before I play the actual song, I will play the chorus part first, in order to feel the mood of the dancer, so when the dancer is ready, then I play the music, and I have to be in constant communication [non-verbal] with the dancer. Sometimes they do not like it [the music] fast or too slow, and we have to adjust, and follow his dancing.

This knowledge, according to Sagau, is something that he learned over time, with interaction and guidance from the master knowledge holders, i.e. *sape* players and dancers. He stressed that the Orang Ulu dance is usually performed solo by a male dancer. Sometimes, a group of women dancers are also involved, but as background dancers.

Sagau's stories are examples of the different nature of the knowledge related to the *sape,* the *know-what*, and the *know-how* of playing the *sape,* understanding the use of its music in dances, and its relationship to the performance of the music with the dancers, as well as the making of the *sape*. Sagau's stories also exemplified the *know-who* of the *sape* community of knowledge holders. Sagau's

effort to codify the traditional music of the *sape* using modern or Western music notation is an example of making *sape* music explicit, which can make it easier to share.

5.2.2.3   Knowledge on adat or native customary practices

The stories from the participants highlighted another type or nature of knowledge that is shared and transferred by the actual participation in doing or by applying the knowledge by constant practice. This knowledge is the *adat*[18] or native customary practices of the indigenous people. Based on the participants' stories, preservation of knowledge of the *adat* occurs through storytelling, participation and continuous practice. The participants emphasized such methods of sharing and transferring knowledge across the communities has been used for generations in the indigenous knowledge systems. As mentioned by Libet, an Orang Ulu informant:

> How we sustain the *adat* is by practising the *adat*. For example, when the community leader talked about the rituals in our culture, such as for funerals and weddings, we put them into practice. So the main thing is to continue to practise them so that our children know. Basically we have to continue with the practice. (Libet)

The participants shared information about their native customary practices where each indigenous group has unique rituals and ceremonies. As mentioned earlier, ceremonies commemorate life events, from birth to death. According to Adrin, the Iban have several *gawai,* or festivals, and he mentioned the *Gawai Antu,* a festival for the remembrance of the dead. He also mentioned community rejoicing, such as the *gawai* to celebrate the abundance of harvests, which has its own specific procedures for conducting ceremonial rituals, with specific customary practices. Adrin explained:

> In every occasion that requires communal participation, we usually conduct the *miring* ritual, where the elder of the longhouse community would chant prayers for the wellbeing of the community, seeking divine

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[18] Adat *native customary practices and the word* adat *are commonly used amongst the indigenous groups of Sarawak.* Adet *-The Orang Ulu term for* Adat

protection to ward off unwanted spirits who might disturb the occasion and the participants. (Adrin)

These processes of carrying out the ceremonies and festivals, originating from the days of traditional religions, are still being observed. However, the participants emphasized that some native customary practices are now observed just as customs and traditions as most of the indigenous people have embraced other religions. This change in the use and sharing of traditional knowledge has resulted in loss of the significance of the *know-why*, which affects the appropriate application of such knowledge, reducing the totality of the knowledge.

These ceremonial events have their own intangible forms of ICH — such as songs, chants, incantations — and other forms that are tangible such as the artefacts used in the ceremonies. Knowledge contained within the rituals and ceremonies, including knowledge within the ICH, are considered public knowledge because they are being performed for communal purposes. Adrin further explained that:

> One of the ways for the knowledge holders to share their knowledge with the community is by recruiting or encouraging members in the community to take part in the ceremonies and rituals. By participating, members of the community have the opportunities to observe and acquire the knowledge of performing the rites and rituals of the ceremonies. (Adrin)

He continued to explain that by observing and participating in the ceremonies, they acquire the know-what of their culture, and as such, people are accepted as part of the community, as they build their culture and identity. The other interview participants also noted that socializing and observing the ceremonies help the community in remembering and making meaning, a way of being able to maintain their culture. For example, according to Solmelo, a Melanau knowledge holder from Mukah:

> For those individuals in the community who are interested in acquiring in-depth knowledge about healing processes, they would have to study under the shaman, as merely watching and observing the shaman carrying out his healing processes would not result in the transfer of the shaman's healing knowledge. (Solmelo)

As I mentioned earlier, common indigenous knowledge is shared proactively by watching or observing the rituals being carried out, or through conversations with the elders. The common knowledge, shared publicly, provides the base knowledge for a person to be an apprentice to the knowledge holder.

5.2.2.4   *Oral traditions*

The next example is of the sharing and transfer of knowledge of the oral traditions of the Iban. For example, *sabaq* or dirges are chanted for the dead during funerals or during *Gawai Antu,* the annual remembrance ceremony to honour those who have passed on.

According to the Iban participants, the Iban have a very rich oral tradition culture. Susil, an Iban interviewee who specialized in Iban oral traditions, gave a list of examples: the *timang*[19], *sabaq*[20], *pantun*[21], *ensera*[22], *embiao* and *sampik*[23], *katakaku nangku*[24], *entelah*[25], and *tusut*[26]. These oral traditions are used in different types of circumstances in the Iban communities. Susil commented that:

> Basically *timang, sampi and embiao* are solely recited by men, but *pantun, sabaq,* and *ensera* can be recited by both men and women, while *sabaq* is commonly done by women. These experts share their knowledge with the community during the performance of rituals whenever the circumstances or situations require the use of such oral traditions. Some oral traditions warrant divine intervention as some are sacred, only to be performed by those who are really knowledgeable. These experts have to have the knowledge of the use of the different types of the chants, as well as the sacred knowledge behind the types of oral traditions. (Susil)

According to Susil, the knowledge holders would only share deeper knowledge associated with these oral traditions in stages by getting the knowledge seekers to learn these oral traditions under the respective knowledge holders. Susil added

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[19]*Timang* - Invocatory chants
[20] *Sabaq* - Ritual dirges or chants
[21] *Pantun* - Traditional or praise songs
[22] *Ensera* - Legends or poetic epics
[23] *Embiao and sampik* - Ceremonial oratories or traditional prayers
[24] *Katakaku nangku* - The praise songs for head trophies
[25] *Entelah* - Riddles
[26] *Tusut* – Genealogy or life histories

that there are different knowledge holders for different oral traditions. Only then does one know how to use, and the different uses of, these oral traditions. It is during the sharing and transfer of knowledge about these types of ICH that issues such as who can perform them, or which gender can render the recitations, become apparent. The following narrative from Margaret, an Iban informant, illustrates this matter further.

Margaret explained the *adat* or practice of chanting of dirges during funerals in the following narrative that illustrates the use of *sabaq,* one of the oral traditions in the Iban community.

> *Sabaq* is the chanting of dirges during a funeral, where a group of women called the *tukang sabaq* take turns to chant about the journey of the dead person to the underworld or *sebayan.* The *sabaq* tells the story of the life of the deceased, to those who are witnessing the rituals, as well as being a method to communicate to his ancestors that the deceased is coming to join them. The dirge chanters also act as the intermediary between the deceased and the spiritual beings, where the deceased is informed about the journey he is to take to the *sebayan,* what to expect, and what to avoid during the journey. The chanting of the dirge is believed to accompany the deceased to *sebayan.* The chanting would be carried out the whole night until morning, and could carry on for a number of nights. The apprentice in the group would chant the easier parts of the dirges. That was how she learnt, by observing the accomplished dirge chanters, and by taking part in the simpler verses of the dirge. The chants were not written; everything was learnt by memorizing the sequence of the chants, and 'tailored' for each deceased person. (Margaret)

Margaret added that it is communal ceremonies such as funerals, when the longhouse occupants could witness the process of the rituals, which allowed them to acquire knowledge of the different types of oral traditions and their uses or the processes of use. As I mentioned in an earlier section, witnessing and observing the carrying out of such rituals is a passive, one-way sharing of knowledge on oral traditions. Margaret added:

> Just watching the ceremonies would not make a person able to carry out the rituals. As I mentioned earlier, participation and hands-on practice with the knowledge holder during the actual performance or rendering of such oral traditions is a more effective way of sharing. (Margaret)

Margaret's statement concurs with an earlier statement by Solmelo, when he gave the example of learning traditional healing amongst the Melanau, i.e. acquiring such *know-how* type of knowledge requires active doing or participation in a ceremony or performance of a ritual.

Witnessing the performance of the rituals reflects and shares another type of knowledge with the community, i.e. the community becomes aware of the practitioners or the network of practitioners of the different types of oral traditions that are being used in different festivities or ceremonies. This is the *know-who* type of knowledge. From my analysis of the narratives above, it is important for the community to know who the knowledge holders in their communities are, to know those people who have the *know-what* knowledge, and those who *know-how*, i.e. the implementation of the knowledge.

The tacit knowledge expressed in ICH, such as songs or other oral traditions, is usually transmitted orally. Practising them regularly under the tutelage of the knowledge holder is a form of knowledge transfer. As explained by Danai, an Iban informant:

> It is the ability to remember too because these songs are oral traditions, shared orally, and have to be repeated every day. I learnt this from my uncle by listening to him sing the songs since I was a small boy. And I listened to their singing every day during the *padi* harvest, working in the farms, while tapping rubber, going into the jungle looking for edible vegetables, except when hunting for animals, you cannot make any sound. That was how they shared, they memorized by practising it every day. I saw how my uncle showed us how to master this song. Every day after dinner, we sat together in the evening at the *ruai,* learning and memorizing the song from one stage to another, we just followed. In the past, to aid them in remembering, they used the *papan turai* or writing board. They cut symbolic pictures onto the wood as indicators of what to mention and how to proceed with the songs, for example, if the song is about a man passing by a river, so they would show the sign of a man. That was how they shared their knowledge. (Danai)

Danai emphasized that the *papan turai* used to be a form of mnemonic tool to master long poems, but it has now lost its significance as a memory tool, and the knowledge of the skill and art of making it has been lost too with diminished use.

Danai also stressed the limitations of the *papan turai* as it only served the *lemambang* or the bard in a community in one location as the symbols or writings on the *papan turai* would not be understood by, or useful to, a bard in another community in a different location. Danai explained:

> When the bards coached us at different times, we would find more beautiful verses. The bards would show us different alternatives or ways of rendering the songs. When there were two or three people singing from the same longhouse, they followed the same track, but the verse inside here was supposed to have a list [stanza] for two, male and female, that rhymed. If one *lemambang* recited the male line, the other would sing the female line. Each *lemambang* has his own way of singing or chanting. So, although these bards might come from the same longhouse, they would do it differently. (Danai)

From Danai's explanation, while the *papan turai* was used as a guide to what was to be recited by the bard, it is limited to the context of a specific community. He also emphasized that the ways of chanting or singing the verses can also differ between the bards, each with his own individual expressions, which is one of the traditional ways of sharing knowledge amongst the skilled bards. The story related by Danai is one example that shows the compartmentalized nature of some indigenous knowledge. Such knowledge is compartmentalized because one person does not hold the totality of the knowledge, as illustrated by Danai's story, where several members of the circle of practitioners contain parts of the knowledge. The transfer of such complex and compartmentalized knowledge can only happen through active participation between the knowledge holder and the knowledge seeker. In this example, I ascertained that the part of the knowledge held by the bards is tacit, and part of it is expressed visually on the *papan turai,* which is a form of making the knowledge explicit, and part of it lies with the expressions of individuals carrying out the oral traditions. Creating the *papan turai* requires an additional need for sharing of knowledge on how to carve the *papan turai,* the knowledge of the types and meanings of symbols to be carved on it, and the types of wood that can be carved.

The preceding narratives are examples of knowledge sharing that require the involvement and participation of both the knowledge seeker and the knowledge

holder. The narratives mention that knowledge sharing can be straightforward, i.e. the ways of sharing knowledge are not hampered or slowed down by the need to fulfil cultural or customary requirements before, during, or after knowledge sharing.

These statements by the participants lead me to the next finding, i.e. the sharing of indigenous knowledge that has certain taboos related to a ritual, and when certain sacred requirements have to be fulfilled, either in the act of sharing/transfer of the knowledge or in the carrying out of the knowledge itself. In the next section, I share this aspect of indigenous knowledge sharing.

5.2.3   Restricted sharing of the sacred: know-why

Several participants highlighted the need to know the taboos and/or rituals in the process of sharing knowledge, i.e. when it requires fulfilling certain cultural requirements which almost always have a third dimension – the involvement of spiritual or divine intervention. I categorize this kind of knowledge as the *know-why,* i.e. understanding the principles behind a phenomenon (Garud, 1997, p. 84) of indigenous knowledge. As illustrated in the following stories, knowledge within this category needs to be sought or requested from the knowledge holder. Some of the participants — such as Kanikie, Rusham, Adrin and Padeng — mentioned that, due to the nature of sacred knowledge, usually those who have this knowledge are either given it or chosen by the owner or holder of the sacred knowledge. Often, such knowledge is not to be shared at all, and also not accessible to all. Thus, it is necessary to understand why such knowledge is restricted, in terms of who can receive it, and how and why such knowledge is used.

The participants shared the same sentiment that certain sacred requirements are needed for a person to possess particular knowledge, and in carrying out the processes of using such knowledge. These sacred requirements need to be fulfilled in the process of sharing or transfer of such knowledge. For example, in the Iban community, certain traditional or cultural requirements must be fulfilled

in the sharing of oral traditions even though the knowledge is communally shared through storytelling or being performed publicly and used daily. Danai explained, as also mentioned earlier by Adrin, that:

> Performing the *miring* or blessing ceremony before the start of a knowledge sharing session is an example. The knowledge to be shared or transferred might not be sacred, but the performance of the *miring* to get the blessing for the sharing session is the sacred part of the process of knowledge sharing. (Danai)

The reason for the performance of the *miring* ritual has to be understood, i.e. to get a blessing for a communal event in the Iban community. There are also situations when knowledge seekers are turned away or not granted the knowledge. This could be due to factors such as age, gender, suitability, or even genealogy. There are age requirements, such as reaching puberty, or having experienced some life events, for example after childbirth, or after an achievement, e.g. after the completion of a *pua.* Some knowledge is gender-specific or authority-related, e.g. the weaving of *pua* is confined to women, or the *miring* ritual has to be conducted by the village elder.

As explained by Solmelo, one acquires this category of knowledge in two ways, i.e. one can ask for the knowledge, or one is chosen to have the knowledge.

> In the indigenous community, if you are interested in acquiring a deeper kind of knowledge, you will have to undergo a period of tutelage from the knowledge holder as a process of giving or sharing his knowledge. It is not an overnight process. Take for example, indigenous healing knowledge. I give you the experience I had. One becomes an apprentice with the healer, starting with menial duties such as housekeeping, collecting firewood, cleaning the knowledge holder's house. This is a form of assurance that the knowledge seeker is serious in wanting the knowledge. The knowledge holder was also able to see if one is serious about the learning process, or whether one is the person to pass the knowledge to, as he [knowledge holder] did not want the knowledge to be used for other inappropriate purposes. During my younger times, knowledge holders would first look at you. With the wisdom that they had, they can see whom they can trust and whom they think is able to hold this knowledge in the sense that this person will not abuse that knowledge. That is the most important thing because, what I meant is, it can hurt people if they abuse this knowledge.

Take the knowledge about the *mentera*[27]. In the Melanau community, some of the *mentera* can be used either to harm people or for the good of the people. So that is the reason why they have to choose the receiver or whom they want to give [the knowledge to]. The recipient would be chosen very carefully. Knowledge of traditional self-defence is a good example. When you learn self-defence, self-defence is not just one kind. It can be for physical defence or spiritual self-defence against black magic. You use *mentera* in your own self-defence, and the use of *mentera* requires rituals. That is how you learn, with all those rituals which you must follow. (Solmelo)

In the narrative above, the *mentera,* or the incantation, in a Melanau community is in itself a form of ICH, where one has to have the knowledge of the usage of such an incantation. This is similar, as mentioned earlier by Susil, to the use of Iban oral traditions. Solmelo also mentioned the knowledge of self-defence that requires the recitation of *mentera* as a physical defence, where one can see the physique of an opponent. The spiritual self-defence is to ward off, protect or cure oneself from certain unexplained calamities (e.g. being sick, but usually the cause or symptoms are not traceable using modern medical examinations of the patient). The *mentera* is one example of a form of ICH amongst the indigenous people which is a challenge for the knowledge holder to simply share with anyone, due to the knowledge protocol requirements, as explained below.

Kanikie, a knowledge holder of Melanau native customs, related the story of the recital of chants that can only be used for their intended purposes.

I wish to share this story about my mother. She was a knowledge holder on healing, who used chants to cure sickness. She recited the chants only when people came to seek her help to heal them. I used to listen to her when she did these treatments on people. At times, I asked her to recite the chants, just for me to listen to. Although she would oblige at times, usually she would be sick after the recitations because she was not supposed to recite the chants just for the sake of reciting them. As the chants were recited not for the specific purpose of the chants, she received these pains, as an indicator from the spirits that these chants were not to be simply recited if not for the actual purpose of the chants. (Kanikie)

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[27] *Mentera*: incantation

The narrative above demonstrates that usage of such knowledge has to be for the appropriate purpose. A knowledge holder cannot simply share or transfer his knowledge to just anyone. Another informant, Koteng, a Melanau healer, mentioned that it was not up to him to decide who would be the next recipient of the knowledge that he has now. He is just the knowledge keeper, not the knowledge owner.

> I did not learn this healing knowledge that I have. I am concentrating more on prescribing the types of traditional medicine to those who need it. Sometimes, the idea to treat just comes into my mind, as if sent to me, through another voice, which sort of is telling me how to do it. I have a kind of invisible companion who guides me in the course of me treating those who come to seek treatment. This companion will sort of whisper to me the ways to treat the ailment. But, I cannot lie or fool around with the knowledge. My companion would not allow it. I will receive pains in my body if I am to do that. Also, I cannot receive any form of payment for my service. The only form of compensation or token that I can accept from the people who seek treatment from me is a needle and a piece of white thread. (Koteng)

When I asked Koteng about the significance of the needle and the thread, he explained:

> Why needles? Needles represent our bones; the white thread represents our veins. I cannot accept knives or any other forms of compensation or even threads in other colours. If someone gave me them wrongly, I will have bad dreams. (Koteng)

The know-why of the significance of needles and white thread as the accompanying ICH in this story is that they carry their own meaning and importance in the context of this Melanau healer. The narrative shows that failure to understand such requirements can bring adverse effects to the knowledge holder as well as to the knowledge seeker. This aspect of knowledge sharing does have an impact on the CIs in their processes of acquiring the ICH because the fear of misuse of the knowledge that can cause pain or suffering or misfortune, both to the knowledge holder and to the knowledge seeker, might mean that the knowledge would not be shared, which leads to its gradual loss.

Rusham, another Melanau traditional healer, shared a similar story on the kind of token she can receive from those who have received her treatments.

> I started treating people with the basic knowledge I had on traditional healing of simple skin diseases such as insect stings or simple rashes. It is common for people to give me a bit of money or something metal, as compensation, as is usually done in our society. Then I developed this knowledge further from ideas that just came to me. I progressed from treating simple rashes to other complicated skin diseases. I only came to realize that my ability to heal was not really mine when a figure like a woman came into my dreams, telling me not to accept the knife given to me as a token for the treatment. I did not take this advice initially. Then, another time, she appeared again in my dreams. She again told me not to accept the knife given to me. I didn't realize during the day, someone gave me something, wrapped in newspaper. I just left it on a shelf without opening it. That night was when she appeared again, telling me that I accepted the knife, but in fact I did not know there was a knife in the wrappings. She warned me further against continuing to receive knives, she then told me to ask for gold from the people as a form of token. By then, I was thinking of the village people, as they would not be able to afford gold. So, now I just accept iron nails as tokens for my healing services. Although I have told people not to give me knives, some still do, and when that happens, I do get cuts on my hands and arms, from nowhere. (Rusham)

Here is the significance of tokens as a cultural requirement in the acquisition of certain types of ICH. The absence of the required tokens meant knowledge sharing cannot take place.

During the interview with Rusham, her daughter was also present. So I asked Rusham whether she has taught her daughter this knowledge of traditional skin healing. Rusham said she did try, and there were other community members who asked for her healing knowledge too. However, from the first few times she shared some of her knowledge with others, the woman in her dreams visited her. From then on, she did not share her knowledge on healing anymore, as she did not want further anxiety from the woman in her dreams. Rusham sensed that it is not for her personally to give or transfer the knowledge, nor is it for her to choose

the recipient of that knowledge. Such is Rusham's fear of the damaging consequences from inappropriate knowledge sharing.

This type of knowledge is sometimes confined to a circle of people, as Susil elaborated, such as for the weaving of *pua,* the Iban traditional blanket, an iconic tangible form of ICH of the Iban.

> That is the women's world, at all levels of the processes. Most of them still use the traditional ways, and they are very secretive about it, and they cannot tell us males. In the olden days, in harvesting the plants that give the natural dyes, there were rituals carried out by the woman priestesses. There are important aspects of the weaving where you have to observe the taboos. Even within the circle of women, some of the women cannot simply do certain things during the process of *pua* weaving, due to the taboos. (Susil)

This is another example of a specific group who hold knowledge that is restricted to the domain of certain sets of practitioners. This is similar to the earlier mentioned example of compartmentalization of knowledge in the Iban oral traditions. From these examples, I observed that the knowledge holders have to share several sets of knowledge. One set is the special secret and sacred knowledge they have on the procedure of administering the knowledge, which includes the taboos that have to be observed. Another set is the knowledge of the accompanying ICH. From the interview participants' narratives, I noticed that such indigenous knowledge is limited to a special kinship or circle of the community, confined to just a small group of knowledge holders. This sets limitations on the sharing and transfer of such knowledge, as at times it is not just between knowledge holder and knowledge receiver, but there is an additional element in the knowledge process, that of divine or spiritual intervention. This limitation affects knowledge sharing activities.

5.2.4   Summary

The indigenous people have various ways of knowing, and this determines the ways their knowledge is transferred, through stories, songs, memories, and thoughts (shared or not shared), embedded in ICH. The participants acknowledged that much of their knowledge is still in the minds of the knowledge holders; nevertheless, the communities know the network of *who-knows-what* in the community. In Section 5.2, the findings focused on the components of indigenous knowledge: the know-what, know-how, know-who, and know-why components.

In further analysis of their stories, I discerned that indigenous knowledge has the characteristics of being distributed, compartmentalized and multidimensional. The nature of indigenous knowledge indicates that it is set within an ecosystem where every part of the knowledge, the knowledge holder and the receivers, the various forms of ICH that accompany the knowledge, and the network of knowledge holders in the community, all play important roles, as Figure 12 below illustrates.

Figure 12   *Indigenous knowledge ecosystem*

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An examination of the indigenous peoples' ideas about their own perceptions of their knowledge provides an understanding of what their knowledge is and how the knowledge is shared.

In the next section, I illustrate the cultural requirements in the sharing of their knowledge. As has been mentioned earlier, publicly shared knowledge is common, and accessible to all, however, there are instances when the sharing of knowledge requires the fulfilment of cultural and/or spiritual protocols beforehand. I discuss the differences between cultural and spiritual protocols in the following section.

5.3 The fulfilment of cultural and spiritual protocols as requirements for knowledge sharing

In the following section, I highlight the cultural and spiritual protocol requirements in the sharing of the different types of indigenous knowledge.

I define a cultural protocol, based on the participants' descriptions, as the acceptable behaviour in relation to interactions with members of the community who hold certain positions of responsibility, such as the chieftain and headman, and including knowledge holders.

5.3.1 Cultural protocol of the intermediary

The participants from the three indigenous groups selected for this study acknowledged that if someone from outside of the community would like to seek knowledge from knowledge holders, it is important to approach the chieftain or headman of the longhouse or the village. The chieftains and village headmen are those whom I consider to be the intermediaries for the indigenous communities.

The cultural protocol for acquiring knowledge from the knowledge holders depends on whether the knowledge seeker is from the community or is an outsider. The cultural protocol in this context defines the ways of approaching the

gatekeeper, as befits his or her position of authority in the community. For example, when approaching intermediaries, the knowledge seekers must know the proper salutations. They must state their intentions and purposes for acquiring such knowledge. The participants in my study explained that a cultural protocol that must be observed by a person from outside the community is highly formal. However, if the knowledge seeker is from within the community all that is required before the knowledge can be shared is an expression of interest in acquiring the knowledge and this can be made directly to the knowledge holder.

The research participants emphasized the importance of observing the ways of approaching the intermediaries and the knowledge holders. A knowledge seeker from within the community who intends to be an apprentice of a master knowledge holder must demonstrate humility and must show that he or she is practical. This condition was a component of an earlier quote in Section 5.2.3 when Solmelo stated that it was necessary to demonstrate humility and thus express serious intent to acquire knowledge by undertaking menial tasks for the knowledge holder.

Rinain, an Iban, gave another example of a protocol that included certain body language such as the way one sits in front of the elders:

> In the Iban community, it is considered inappropriate for women to sit crossed-legged on the floor in front of elders.

These are examples of some of the protocols that must be followed when approaching the intermediaries amongst the indigenous groups, or when in the company of the indigenous people. The elements of showing respect to the intermediaries and knowledge holders, and of displaying a sense of humility on the part of the knowledge seekers, helped to gain their trust and acceptance. Reflecting upon this, knowledge of these protocols will be useful for the CIs when they go into the indigenous peoples' communities, and when they are negotiating with the indigenous people about acquiring their knowledge.

5.3.2   Cultural protocol of the *Pengeras* or tokens

Another important finding is regarding the cultural protocol of giving a *pengeras* or a token as a gift to the knowledge holder when one acquires knowledge from him or her. Although I mentioned tokens earlier, in this section I elaborate further on the significance of tokens amongst Sarawak indigenous communities.

The *pengeras* is usually presented or given by the knowledge seekers, as explained by Rusham, when they come to seek knowledge from her.

> It is common for people to give me a token, most times something made of metal, such as a piece of iron nail. This is the usual form of token in our society. In the absence of iron nails, sometimes they give me money in the form of coins, which are also metal-based. (Rusham)

Comparing notes between these three groups of indigenous people on the concept of *pengeras,* one common trait is the use of metallic items such as the spearheads or penknives, iron nails, or needles. According to the interviewees, such metallic items symbolize strength. The use of a metallic item such as a *parang,* either as a token or as an item for performing a certain ritual among the Iban, serves as a *kering semangat* or soul strengthener for the *manang* or shaman. Likewise for the Melanau *bayoh* or shaman, a *pengeras* made of metal serves as a soul strengthener as well as protection from malevolent spirits. With the Orang Ulu, the practice among the shamans is generally similar to that of the other ethnic groups.

5.3.3   Cultural protocol related to class hierarchy

Another cultural protocol shared by the participants concerns the status of a person in the community. The status protocols of the Orang Ulu, Melanau and Iban are manifested in their respective ways of living. For example, in the Orang Ulu society positions with communal responsibilities, such as headmen, are mostly given to the *maren* clan.

For the Melanau, the protocols for societal status are most often apparent in betrothals and weddings. For example, as mentioned in an earlier section, the

Melanau have a three-tiered society. Koteng elaborated further on the differences related to the status of the different social classes of the Melanau:

> During a Melanau betrothal, it has to be made clear to the suitor, regardless of what race he is, that he must meet the Melanau girl's way of betrothal. For *Adat, Petirieh* is the name for the customs to be followed by those who are from the Five *pikul. Petirieh* means that the person is a free man, ordinary village man, who is not a 'slave' or someone who does not have a master. Then this is followed by the Seven *pikul,* that is the middle class, and finally the Nine *pikul* are the highest class. (Koteng)

Koteng added that the class status of the Melanau bride-to-be is indicated during the Melanau engagement ceremony, where a hand woven *perca or* handkerchief is presented together with the dowry for the girl. This handkerchief, as a form of betrothal ICH, plays a significant role in identifying the class status of the girl.

> For a person from the *Nine pikul,* there has to be a design of *perca bunga tabur* or scattered motifs of small flowers woven using gold thread; for those of *Seven pikul, perca bertaris,* the design with gold stripes; and for *Five pikul* plain designs, without any gold thread. But, nowadays, in the absence of such hand-woven handkerchiefs, money is used as a replacement. (Koteng)

According to Koteng, the amount of money substituting for the *perca* depends on the *pikul* strata: the higher the *pikul,* the more is needed, as determined by the family of the girl.

Cultural protocols related to class hierarchy are still being practised regardless of the religions professed by the indigenous groups. Thus, in terms of knowledge sharing and transfer, one has to understand the class status of the knowledge holder in order to accord him or her the appropriate protocol befitting his or her status. Thus, it is essential for an outsider to know and observe the cultural protocols related to social hierarchy given the importance accorded to them by the participants.

5.3.4   Spiritual protocols

Based on the interviews, I identified another kind of protocol that is required in the process of knowledge sharing amongst the indigenous people. They believe certain types of knowledge originate from or are bestowed upon them from the spiritual realm, requiring the knowledge holder to seek spiritual intervention before the commencement or during the carrying out of the knowledge sharing processes. The participants stressed the importance of the process of seeking spiritual intervention, which have I termed as the spiritual protocols of knowledge sharing. This section highlights that indigenous knowledge involves not just the knowledge giver and the knowledge recipient, but also knowledge owners from the spiritual realm and the related spiritual protocols.

From the data, I observed that some indigenous knowledge is not owned by human beings: they act only as keepers. This knowledge encompasses the sacred and sometimes secret indigenous knowledge, and it is 'owned' by a higher or divine being, whereas the human beings are just 'channels' for the knowledge to be used.

During the interviews, Danai explained:

> Amongst the Iban knowledge holders, they sometimes are reluctant to share knowledge that has spiritual links to it. This was mainly due to the nature of the knowledge where the knowledge holder has to call or give homage to the spirits first, before she or he is able to share or transfer the knowledge. The chanting or singing of some of the oral traditions has to be accompanied with the beating of brass gongs. The beating of the gongs is an indicator of calling the spirits. Unless there is a real purpose for the beating of gongs, it is not encouraged. This might anger the spirits, and might result in bad omens for the longhouse. (Danai)

Danai added that other members of the community or outsiders who do not understand this spiritual link might lack understanding of why the knowledge holders are reluctant to share or transfer their knowledge.

> Before the transfer of knowledge can take place, the knowledge holders of such knowledge sometimes also have to seek divine help in deciding whether the knowledge seeker is the appropriate person to receive, own

and use such knowledge. It is known that holders of such sacred knowledge have the responsibility to ensure the knowledge is kept as much as possible for the purpose it is intended for. (Danai)

Danai continued to elaborate further by giving an example from the Iban community where certain requirements need to be fulfilled in the sharing of certain oral traditions that have such spiritual links. According to Danai, the knowledge holders perform the ritual required, such as the *miring,* before each knowledge sharing session commences.

According to Danai, usually the knowledge holder requires the person seeking sacred knowledge or knowledge with spiritual links to take part in the ritual of *kering semangat,* which is the ritual for strengthening their soul, to avoid being disturbed by any angry spirits. This ritual is carried out by getting all those involved in the knowledge sharing session to bite a metal item, for example a knife, and to recite after the knowledge holder the *mentera* or sayings, such as in the example provided by Danai:

> Whatever I do, whatever I say, what sickness mentioned here would not affect me. Before they commenced each knowledge sharing session, a plate of offerings was laid out, and then they would take a bit of the *tuak* (rice wine) and throw it outside. This *miring,* or offering act, was to inform the spirits that they were going to sing a song that night, and they would chant to the spirits along the lines of 'give us power to remember whatever we study tonight.' (Danai)

The narrative above gives an example of why some knowledge holders are not able to share their traditional healing knowledge. This is not because of their inability to share or transfer the knowledge, rather it is due to their inability to share because the command to share has not been received from their spiritual companion. In an earlier narrative, Rusham explained how she tried to share her knowledge, but every time she did something bad would happen to her.

Reflecting on the participants' narratives, this type of knowledge entails fulfilling requirements that almost always have a third dimension, i.e. the involvement of spiritual or divine intervention. Certain types of knowledge, such as those in the category of sacred knowledge, need to be sought or requested from the

knowledge holder. The knowledge is bestowed upon a recipient who is chosen by the knowledge holder. Some knowledge is not to be shared at all. The access to this type of knowledge is limited to only a few people.

There are certain sacred requirements needed to possess the knowledge and to carry out the processes of using the knowledge, such as healing traditions. As such, these requirements also need to be fulfilled in the sharing or transfer of such knowledge. There are also situations when seekers of this type of knowledge are turned away or not granted the knowledge. This could be due to several factors such as age, gender, suitability, or genealogy. As explained by Solmelo, in Section 5.2.3 above, this category of knowledge is acquired in two ways, i.e. by asking for the knowledge or being chosen to have the knowledge. In his story, the knowledge about *mentera,* or the incantation, is itself a form of ICH for which one has to have knowledge about its use. Kanikie also spoke about the recital of chants, which can only be used for their intended purposes.

Another spiritual protocol is when the knowledge holder cannot simply share or transfer the knowledge to just anyone. As Koteng mentioned earlier, it was not up to him to decide who would be the next recipient of the knowledge that he now had. He was just the knowledge 'keeper', not the owner. He was unable to explain and describe to me how the sacred knowledge holders came to be chosen. The knowledge was transferred to them, not through pro-active hands-on knowledge sharing, but through divine intervention. However, before this knowledge could be shared or transferred to another, the current knowledge keeper had to ensure the approval of the spiritual 'owner' was sought first. It was not the decision of the current knowledge keeper to share or transfer that knowledge.

This kind of indigenous knowledge is limited to a special kinship or circle of the community, confined to just a small group of knowledge holders. This limitation has an impact on the sharing and transfer of such knowledge, as at times it is not just sharing between knowledge holder and knowledge receiver, because an

additional element is required in the knowledge process, that of 'divine' or 'spiritual' intervention.

5.4   The Tiers of Knowledge

Combining the elements of the nature of knowledge in Section 5.2, and the requirements of knowledge sharing in Section 5.3 above, a key finding of my study is that there is a tiered knowledge system in the indigenous peoples' ways of knowing. Understanding this tiered knowledge framework is essential for the CIs in their efforts to safeguard indigenous knowledge. Each tier of knowledge depicts how the indigenous knowledge holders share their ICH, and has specific requirements for their sharing processes. Being able to identify which tier the knowledge belongs to can aid the CIs in prioritizing documentation and safeguarding projects, allocation of resources, and identifying inter-CI collaborative efforts.

The different phases of data analysis, as explained in Chapter 3, and the phases of coding, helped me to identify the theoretical codes for this finding. The dependency of the methods of sharing on the type or nature of knowledge led me to the finding that the indigenous people have a tiered system of knowledge which is hierarchical and interconnected, although there is some level of overlap between the tiers.

The Figure below illustrates the tiers:
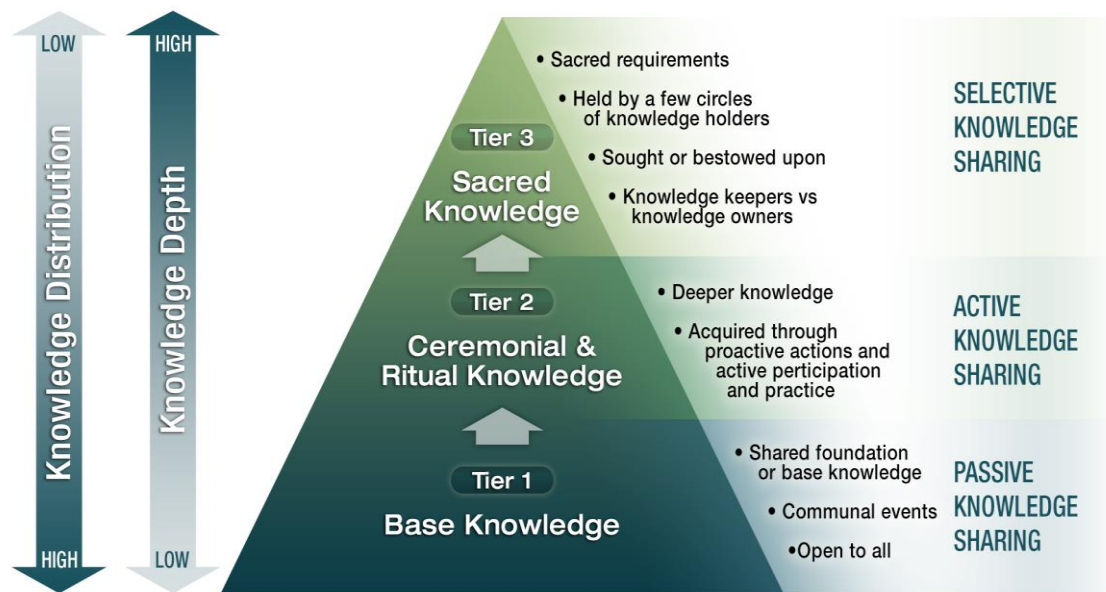
Figure 13   *Tiers of Knowledge*

Tier 1, the base knowledge, is shared proactively, i.e. without being asked, and shared without the need for much interaction or participation from the knowledge recipients. This kind of knowledge is usable by everyone, and serves as the foundation for a person if she or he decides to acquire the next level of knowledge, i.e. Tier 2. Tier 1 knowledge is easily accessible by the community, as this type of knowledge is embedded in communal events or common life skill practices.

In Tier 2, the type of knowledge is accessible to those who want to be the apprentice of a master knowledge holder. A deeper level of knowledge is shared and transferred by a master knowledge holder to his or her apprentice by getting them to observe and to undertake hands-on practice. For Tier 2 knowledge, the proactive actions on the part of the knowledge seeker in wanting the knowledge are essential for the knowledge holder to be willing to share or transfer his/her knowledge. Tier 2 is active knowledge sharing and transfer.

Tier 3 knowledge is sacred and is held by just a few knowledge holders. The sharing of knowledge in this tier is selective, i.e. the knowledge holder has to

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agree to transfer the knowledge to the person who sought the knowledge. A knowledge recipient might not even seek the knowledge, but this kind of knowledge can still be bestowed upon him/her. There can be requirements that need to be fulfilled in order to share and transfer the knowledge in this tier. In Figure 13 above, as the tiers of knowledge progress vertically the number of knowledge holders reduces while the depth of knowledge increases, as depicted by the arrows on the left.

Table 6   Tiers of Knowledge

Tiers of Knowledge	Characteristics of the knowledge and ways of sharing
Tier 1: Base knowledge	Shared foundation; communal sharing; accessible to all. *Passive knowledge sharing – no need to ask.*
Tier 2: Ceremonial and ritual knowledge	Deeper knowledge; sharing and transfer of knowledge pro-active; active participation and practice *Active and participatory knowledge sharing upon request.*
Tier 3: Sacred knowledge	Sacred requirements; knowledge held by a few knowledge holders; sought by or bestowed upon knowledge seekers by knowledge owners; tensions between knowledge keepers and knowledge holders *Selective and participatory knowledge sharing.*

The table above is a summary of the Tiers, which are discussed in detail in the next section.

5.4.1   Tier 1: Base knowledge

This first tier of indigenous knowledge is the type that is shared publicly within the communities. According to the participants, this knowledge is accessible to all, and there is no need to request or ask for the knowledge. It can be imparted during communal events in which everyone can observe, listen or partake, or it can be amongst the essential life skills knowledge imparted by the elders as a duty to family and community members. The community is also able to know who the village elders with authority are, and the network of knowledge holders. The

kinds of ICH used during these events, e.g. the music and the chants, and the tangible artefacts (e.g. the gongs and the appropriate paraphernalia), are available for the community to see, use and partake in. This first tier of knowledge provides the base knowledge to enable a person who is interested to pursue this knowledge further.

The base or first tier of knowledge is the *know-what* knowledge, which provides the foundation for the second tier. The base knowledge acquired during the public sharing assists those who want to seek deeper knowledge. From the perspective of the indigenous people, once a person has a grasp of the base knowledge, and if he or she chooses to pursue further acquiring the knowledge from the knowledge holder, she or he will have to undergo a period of apprenticeship under the guidance of the knowledge holder.

5.4.2   Tier 2: Ceremonial and ritual knowledge

Unlike Tier 1 knowledge, Tier 2 knowledge is transferred to its seeker through observation and hands-on practice while being an apprentice of the knowledge holder. The know-how knowledge is acquired from this Tier onwards, as the sharing of the how-to takes place during the tutelage or apprenticeship with the knowledge holder.

The story related by Danai in Section 5.2.2.4 is one example that shows the compartmentalized nature of indigenous knowledge. It is compartmentalized because, as Danai explained, parts of the knowledge were held by several members of the circle of practitioners – in this example, the bards – and part of it was contained in the ICH, i.e. the *papan turai.*

Some parts of Tier 2 knowledge can lead to, or can overlap with, the next tier of indigenous knowledge. This is usually the case with knowledge that has certain taboos or is related to a ritual, and when certain sacred requirements have to be fulfilled, either in the act of sharing or transferring the knowledge, or in the carrying out of the knowledge itself. For example, in the Iban community certain traditional or cultural requirements must be fulfilled in the sharing of oral

traditions even though these are shared by storytelling and daily practice. Performing the *miring* ceremony before the start of a knowledge sharing session is an example. The knowledge to be shared or transferred might not be sacred, but the performance of the *miring* to get the blessing for the sharing session is the sacred part. This is where the overlap occurs.

5.4.3   Tier 3: Sacred knowledge

The third and final tier of knowledge is the type that requires fulfilling certain requirements, which almost always have a third dimension, i.e. the involvement of spiritual or divine intervention. Certain types of knowledge within this category need to be sought or requested from the knowledge holder. Another type of knowledge is bestowed upon a recipient who is chosen by the knowledge holder. Some knowledge is not to be shared at all. These types of knowledge form the top tier of indigenous knowledge – they are accessible only to a few.

There are certain sacred requirements needed when in possession of the knowledge, and in carrying out the processes of using the knowledge. As such, these requirements also need to be fulfilled in the sharing or transfer of such knowledge. There are also situations when knowledge seekers of these kinds of knowledge are turned away or not granted the knowledge. As noted earlier, this could be due to several factors such as age, gender, suitability, or genealogy. One acquires this category of knowledge in two ways, i.e. one can ask for the knowledge, or one is chosen to have the knowledge. This type of knowledge is usually confined to a small circle of people and can be accompanied by certain taboos, which form another set of knowledge that accompanies some forms of ICH. The limitation to just a small group of knowledge holders has an impact on the sharing and transfer of such knowledge, as at times, it is not just between knowledge holder and knowledge receiver; instead there is an additional element in the knowledge process, that of 'divine' or 'spiritual' intervention.

5.5   Summary

This chapter highlighted: the types and tiers of knowledge; how the community retains the knowledge; how it is transmitted including by whom and to whom; the protocols relating to status; the protocols relating to social issues and etiquette; and the spiritual constraints. These aspects all have major implications for the CIs in the safeguarding of such knowledge, and these are further explored in the next chapter.

Chapter 6 Safeguarding Intangible Cultural Heritage: Perspectives of the Cultural Institutions

6.1 Introduction

In Chapter 5, I detailed the findings about the nature of indigenous knowledge of the indigenous people of Sarawak. Indigenous knowledge is complex, and I presented it in a tiered knowledge system. As stated in Chapter 1, UNESCO's definition of the process of safeguarding includes the 'identification, documentation, research, preservation, protection, promotion, enhancement, transmission' (UNESCO, 2016, p. 6) of indigenous knowledge and its ICH.

In this chapter, I present three main areas of my findings from the narratives of the participants from the cultural institutions (CIs) on their experiences in safeguarding intangible cultural heritage (ICH). The function of this chapter is to answer the second research question:

> RQ2 What issues do the cultural institutions in Sarawak face in safeguarding the intangible cultural heritage?

The participants were staff from six cultural heritage institutions (Highlands, River, Lake, Sea, Valley and Hill) in Sarawak. The pseudonyms of the participants from the CIs, whose stories are quoted in the findings, are in Appendix 8.

The interviews I conducted with the participants from the CIs provided me with data which I analysed, highlighting issues involved in safeguarding ICH faced by the CIs. I divided these issues into three broad categories:

i.   Reaching out to and engaging with the indigenous people
ii.   Complexity of indigenous knowledge
iii. Organizational safeguarding initiatives.

6.2. Reaching out to and engaging with the indigenous people

In this section, I highlight the issues relating to the importance of protocols, the role of intermediaries, and gaining the trust of the indigenous knowledge holders in reaching out to the source communities. I will first highlight the issues of protocols. These are the two types of protocols necessary for the CIs in their safeguarding efforts, i.e. (i) the formal protocols, or the administrative formalities with the other government organizations, and (ii) the cultural protocols, or the cultural sensitivities to be observed with the indigenous people.

6.2.1 The formal protocols

In the process of identifying the ICH for safeguarding, the CIs require the participation of the indigenous people. According to Sarawak's protocols, it is essential for the CIs to go through several bureaucratic processes before officers or researchers from the CIs can gain access to the indigenous communities. This is the formal protocol of approaching the indigenous people. The participants from Hill, Highlands, River and Lake stressed the significance of the need to adhere to this formal protocol as a prior official consent to approach the indigenous people.

As explained by Mandy, a researcher at Highlands, the District Office (DO) or Resident's Office (RO) has responsibilities for the indigenous people, and any research or any kinds of activities involving the local communities require the consent of the DO/RO. The RO had to be briefed officially regarding the project and the proposed collaboration with the indigenous communities. The DO or the RO would then contact the *Ketua Masyarakat* or the Community Leader to invite the community leaders to attend the initial consultative meeting with the CIs concerned.

> We used the capacity of the Resident's Office as the authority to link us with the indigenous people. The Resident's Office is the administrative head in the Division. We made sure we abided by the law of the local authorities. We indicated to the RO that we conduct consultative meetings to explain our purposes to the indigenous people. The RO is the actual

agency that sent out invitations to the respective community leaders to attend our meetings. The RO invited the *Temenggong, Pemanca, Penghulu* right to the *Ketua Kampung*. These are the heads of the communities. (Mandy, Highlands)

According to Niman and Mandy, the presence of the officers from the DO/RO at the consultative meeting demonstrated that the CIs had received the approval from the DO/RO. This demonstration of approval is essentially a step in acquiring the consent from the indigenous people, which can lead to gaining their trust. This is an important element in obtaining their cooperation to work with the CIs.

Mandy further explained that her organization usually did the follow-ups with the community leaders after the invitations had been sent out by the RO. It was during the initial consultative meeting that the introduction about the organization, its functions, and the reasons for them carrying out documentation projects, were explained to the community leaders. Usually, during this initial meeting, the Resident or his representative had to be present, as s/he was a familiar person or face to the community leaders. The informants added that the presence of the staff from the DO/RO acts as an assurance of the CIs' integrity to the indigenous communities, another trust-building element.

> During the consultative meeting, we informed the meeting participants of the background of our organization in the presence of the Resident or his representative. We introduced ourselves as a government organization assigned to do this work. We showed them which other communities we worked with. We also told them what we intended to do with their knowledge. We wanted them to know that this was what we as an organization hoped to get, and that they would be acknowledged as the owners of their knowledge. So all these background [details] were introduced during the initial meeting at the Resident's Office. (Mandy, Highlands)

The informants interviewed for this study independently reported that this act of establishing links with the indigenous community through the DO/RO is essential for prior consent. The community places trust in a familiar face, and in this example the face is that of the officer from the DO or RO. According to Mandy, Niman and Hekel, it is a challenge if staff members from the CI try to work with

the indigenous community without the support of the DO/RO, as the community members might not be familiar with the staff of the CI.

Hekel, a researcher at River, shared the same sentiments that the initial ice-breaking with the communities or the target groups had to be conducted with the local authorities. This was to assure the people of the integrity of the organization, and to create rapport with the community:

> Our general approach before we start interviewing the knowledge holders from the indigenous people was to inform them of the reasons for us undertaking the project. For example, when we wanted to document the *adat*[28], we briefed them on our purposes. We also experienced that even if we came from within the community, that is, some of us might be from the same indigenous group but if we do not have good rapport with them, if they do not know us, they might not be able to share with us as openly as they would want to. These were some of the things we found out. (Hekel, River)

Such consultative meetings were intended to inform the headmen, who hopefully in turn informed their respective communities, as well as to get collective consent from their communities. As further explained by Mandy below, it was imperative that Highlands, as an organization, obtained the indigenous people's consent to document their knowledge, before any kind of documentation process could commence. One of Highlands' functions is the documentation of traditional medicinal use of plants by the indigenous groups.

> The consent we had from them was with a simple letter of agreement. It was to let them know that we acknowledged the plants and the knowledge that accompanies the plants were from them. We might have to improve the quality of our agreement with them in order to comply with the requirements of the Bonn Guideline [29](CBD) and now the Nagoya

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[28] *Adat*- Native customary law ("The Adat Iban Order," 1993; Bulan, 2006)

[29]   The Bonn Guidelines (*Bonn Guidelines on access to genetic resources and fair and equitable sharing of the benefits arising out of their utilization.*, 2002, p. 5) provide guidelines for governments and stakeholders in 'developing overall access and benefit-sharing strategies, and in identifying the steps involved in the process of obtaining access to genetic resources and benefit-sharing'.

Protocol[30] (NP) as well. So in order to be able to gain access and share the benefits, we must have prior informed consent. The Bonn Guidelines provided information on this. Ours [letter of agreement] is only a simple agreement. But even so, we respect it and they recognize it, so that is a good start. Since we have an agreement with the community, it also meant that their knowledge could not be used or released to others without the community's consent. (Mandy, Highlands)

The importance of the role of the officials in getting the cooperation from the indigenous groups was stressed by most of the staff from the CIs. Consultative meetings with the help of the RO were basic preliminaries. As mentioned earlier, this step was essentially to confirm the integrity of the organizations to the indigenous groups, that is, to verify that these organizations were part of the Civil Service with valid intentions of documenting indigenous knowledge.

However, having the blessing of the RO did not guarantee the full cooperation from the indigenous communities, as explained by Bina:

Once we entered the community, we explained in detail our purpose for documenting; for example, we were not intending to make money, rather it was more for education purposes. In one of our documentation projects, the head of the community was very suspicious of us. He asked a lot of questions, and it took us quite a while to make him understand our intentions, before he was willing to share his knowledge with us. When he finally agreed, we were not to touch anything, but we were allowed to take pictures. (Bina, Sea)

The fact that the CIs were part of the civil service is not a guarantee that the indigenous communities would readily agree to collaborate. As already explained by Hekel, there were officers of the CIs who were from the indigenous groups, who were to become the intermediaries between the CIs and the indigenous communities. However, this was not a guarantee that the indigenous communities would readily agree to collaborate with the CIs. The CIs have to build their relations with the source communities to alleviate their suspicions of the

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[30] The Nagoya Protocol is the legal framework for implementing 'fair and equitable sharing of benefits arising out of the utilization of genetic resources'. Retrieved from https://www.cbd.int/abs/about/

intentions of the CIs. In the following sections, I share the narratives of the CI participants on their knowledge on matters needed to build the relationship with the source communities.

6.2.2 The cultural protocols

Reaching out to the indigenous people requires the CIs to be proficient in cultural protocols. Cultural protocols, according to the participants, are behavioural protocols that have to be observed when in the company of the indigenous people, especially the community's elders. There is a range of cultural protocols about which staff from CIs have to be knowledgeable when approaching members of the indigenous groups. These include ways of addressing the elders, the language to be used, and one's mannerisms. Some cultural protocols may be universal across the indigenous groups, whereas others are specific to one group.

Jina, an executive with Sea, recounted the experience of how she and her team were informed by members of the community about the ways to address the different castes of the Orang Ulu group when they documented Orang Ulu traditional knowledge.

She gave an example of cultural protocols on how to address the Orang Ulu elders:

> When you stay at the longhouse, you have to observe and follow their protocol where you cannot just simply talk to the *Maren* [aristocracy]. You have to be very proper. They are the *Maren*, and they are of the highest level. I cannot call or address him [community leader] as simply '*Temenggong*'[31] [Highest leader]. I have to address him by adding another word which is *Bapak*[32] *Temenggong*' or address him as *amai* [father[33]] due to his *maren* status. (Jina, Sea)

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[31] *Temenggong* is the title used in all indigenous groups for the highest echelon of the community leaders.
[32] *Bapak* Although this word means 'father' in Malay, in local communities it is also used as a term to address someone older or of a higher status.
[33] *Amai* is the Orang Ulu term for *Bapak*.

Jina elaborated further on the sensitivities when one is in the company of members of the different tiers of her society:

> The *maren* are the highest class of people in our society, thus you cannot address them as *panyin* [ordinary class], as it is like you are downgrading them. If I am a *panyin*, and you call me a *maren*, I can just lightly say I am not a *maren*, but if you call or mistook a *maren* for a *panyin*, the *maren* will feel very much slighted as they feel it is downgrading them, so, you must be really careful with that.

Rami, an executive with Valley, shared his experience as he explained how he was being observed by the Melanau knowledge holders to gauge his sincerity and interest in getting their knowledge:

> The Melanau knowledge holders were mostly elders, and they were very sensitive people. We had to follow a certain protocol when approaching them, depending on their caste, as the Melanau community has a caste system[34] in their society. However, once they acknowledge you, to get knowledge from them is not that difficult if you show how deeply interested you are. (Rami, Valley)

Rami continued to explain that as a seeker of knowledge one has to demonstrate a sense of humility when facing the elders.

> When I sought knowledge from the Elders with the objective of getting them to share or teach me their knowledge, I had to be as humble as I can be. There is certain protocol that you have to observe when you are meeting the elderly people. We have to treat them properly and they are quite sensitive people too. So I have to act as humble as possible, bring myself really down, even though I consider myself an accomplished person in my field. When you are very humble, you wait with patience. The elders observe you and see whether you are really sincere and deeply interested to get their knowledge. (Rami, Valley)

As Rami stated above, his position as an executive and as an accomplished person in his field were not as important as a sense of humility when trying to gain the trust of the indigenous people. Rami also highlighted the mannerisms one has to observe when in the company of the source communities:

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[34] The caste system in the Melanau group is termed as *Pikul: 9 Pikul, 7 Pikul,* or *5 Pikul. The higher the Pikul, the higher is the strata of the clan.*

My experience working with our indigenous people is that they are rich in protocol. So when we work with them, we approach them using a high level of protocol in terms of fine language and deep culture. For example, when I go to the longhouses I have to observe their mannerisms, and so I have to follow what they practise. For example, the Iban sit down on the floor with their legs *berlunjur* [outstretched], not *bersila* [crossed-legged] so we have to follow these mannerisms. We have to learn about their mannerisms too. (Rami, Valley)

Hekel provided another example:

We also experienced that even if we came from within the community, that is, some of us might be from the same indigenous group but if we do not have good rapport with them [members of the community], if they do not know us, they might not be able to share with us as openly as they would want to. These were some of the things we found out. In my case, I ensure that I participate in the associations at the community level. When they had activities, we were involved most of the time, we talked with the community leaders. (Hekel, River)

By being involved in the activities at the community level, Hekel was inducted into the community, and thus the community members were able to know the person more closely. Developing rapport with the indigenous people or the source community, as mentioned by Hekel above, demonstrates the need for an understanding of the appropriate cultural protocol for approaching the indigenous people, especially the elders. Embun of River clearly outlined the importance of understanding the culture of the indigenous communities.

One needs to get to know the people, to get to know their culture in general, and the culture of knowledge sharing, and to know what is required from the indigenous people before one can get the indigenous communities to willingly share their knowledge. (Embun, River)

In terms of the protocol regarding people, statements from Rami, Hekel, Embun, and Jina showed that staff of the CIs had to know the relevant approach protocols of the different indigenous groups, and within an indigenous group, the different strata of the community. They needed to understand the protocols for the hierarchies amongst the different indigenous communities, and the levels of authority of the leaders in the communities. The staff also needed to know the appropriate behaviour when they entered the indigenous community

environment. The staff who were acquiring knowledge about these protocols had to learn from the indigenous elders, and from other staff who have had earlier experience of working with them.

The ability to observe cultural protocols as illustrated in the stories is one of the prerequisites required by indigenous knowledge holders. Adhering to the protocols is a show of respect for the dignity of the people and of their knowledge. As can be seen from earlier statements from the participants, each indigenous group has its own set of cultural protocols. The issue raised by knowledge about these protocols highlighted the need for the CIs' staff to be trained in cultural sensitivities. It is necessary for the staff of CIs to learn and observe the protocols when they work with the different source communities in order to gain their trust before the indigenous people are willing to participate or work with the CIs. Such knowledge should be incorporated and managed in the CIs' safeguarding practices.

The next issue highlighted by my participants from the CIs involves the role of intermediaries as the bridge linking the CIs with the indigenous knowledge holders.

6.2.3   The role of intermediaries

According to the study participants, during the initial stage of establishing linkages with the indigenous people, staff of the CIs would also contact the source communities informally to help the CIs liaise with the indigenous people. The participants mentioned two possible ways i.e. either through their familial connections with the people, as some of the staff of CIs are members of the source communities themselves, or through their network of contacts in the source communities.

6.2.3.1   *Family ties*

A staff member is an insider when he or she comes both from the CI as well as from the source community, and can use his or her initiative to act as an intermediary for the CI. These staff usually use their social connections with their communities as an initial way to help create the link to the knowledge holders in the source communities.

Some participants, especially those who came from the indigenous groups, use family ties as the main informal link to the indigenous people. For instance, Jilly, an executive at Hill, who came from one of the indigenous groups, shared her experience:

> When I needed more or deeper information about the artefacts in my organization that I know originated from my indigenous group, I usually asked my grandmother first. My grandmother also referred me to other elders in the village for more information, as well as to confirm what she [grandmother] knew. (Jilly, Hill)

Jilly explained that she usually referred to immediate family members or members of her indigenous community whom she knows, to confirm existing information about the artefacts, which was then added to the information available in Hill's inventory. Jilly emphasized that she usually went back to the source community especially when there was no documentation available about the ICH she was working on. This method of CI staff going directly to the source community through familial or personal connections for more or deeper information about an ICH can be considered as a shortcut in the process of acquiring traditional knowledge.

Although Jilly was a member of the indigenous group, referring to her grandmother implied that Jilly still needed to gain the trust of her community and the knowledge holders. Being introduced by her grandmother was an important indicator that Jilly was from the indigenous group; thus, a degree of initial trust could be established with the community. This introduction by her grandmother

also led Jilly into the community network of knowledge holders, and she became the intermediary both for her organization as well as for her community.

6.2.3.2 *Network of know-who*

Another informal way used by the CIs was staff members contacting their informal networks of *know-who* in their professional circle. Biman, a researcher with Sea, acknowledged the importance of her informal network of work colleagues who were also indigenous people:

> With one of the projects, what our team did was we asked our colleagues who are around us first, and asked them for leads on who in the community to approach, who we should talk to for the initial information gathering, especially for leads to the actual knowledge holder. (Biman, Sea)

Biman used her informal network to assist in her initial groundwork for her project, providing her with leads to knowledge holders. Several of the participants used this informal network of community intermediaries on an on-going basis. Hekel shared his experience on this matter:

> We used to go to the same people for information on the appropriate knowledge holder, as we have established our rapport with them [the people] over a long period. Once they know us, and when we increased our projects, they contribute by helping to identify for us our potential informants.

Hekel's statement above signifies that keeping continuous contact with the indigenous communities is essential in sustaining the relations with the community. The members of the community who knew Hekel not only helped to introduce other members of their community to Hekel, but they in turn introduced Hekel to their community.

In the above sections, the intermediaries such as the DO/RO and the community familial ties assist the CIs in reaching out to the indigenous people, in order to secure their consent and cooperation with the CIs. The CIs have to observe these protocols of engagement, building towards gaining the trust of the indigenous people, before they agree to collaborate with the CIs with regard to safeguarding their ICH.

Once the CIs have established the links, and observed the protocols of the indigenous people, the next issue is to gain their trust, build the trust, and maintain the trust.

6.2.4   Maintaining and sustaining trust: 'Turning on the knowledge tap'

Establishing the initial contacts with the indigenous people is the starting point for the CI's trust building journey. Once the indigenous people give consent for the CIs to gain entry into their community, and the indigenous people trust them to an extent, the CIs have to work on building and sustaining the trust. The participants from the CIs explained that trust is attained and developed at all stages of working with the source communities. Once the links with the indigenous people are established, this initial trust is further strengthened during the actual processes of the CIs' working relations with the indigenous people. When trust has been achieved, the CIs work on sustaining the trust to ensure the continuity of relations with the indigenous community.

Gaining trust requires time, expert knowledge and wisdom, and following certain protocols. Embun (River) likened the process to courting. He and his colleagues met with source communities and knowledge holders on many occasions, gradually getting to know the people, their culture and how they shared knowledge among themselves before they were willing to share that knowledge with outsiders.

> It was not that easy to get them to respond or to open up to us. Usually it is from our side [to establish rapport]. If they [members of the indigenous community] do not know the person [from the CI], they do not want to share [their knowledge] because they are afraid the person would sell their property. To them, their knowledge is their property. It is just like the concept of courting. (Embun, River)

Embun further explained what he meant by the concept of courting:

> For example, I am in the process of collecting materials from Iban *lemambangs* [bards] for the *timang* [invocatory chants] and these are the texts I have collected since 1994. In order to get this amount of work [showing a thick compilation], I had to go to them [the indigenous community] many times. The first time I approached them, they did not give [the knowledge], they gave only sketchy outlines. I then came back for the second time. [By then] they had a bit of trust, so they gave a bit of detail. Only after the third and subsequent times, when they were more open to us, were we able to do audio recording. When we started writing, we connected with them again, and went through with them what we wrote, and they coached us on the *timang.* (Embun, River)

This courting concept is reflected in Brodie's experience in his story below. Brodie is a documentation executive with Hill:

> I was one of the members of a team that went to do a documentation project about one of the communities from the Orang Ulu groups. We had to stay with them for a period of time to get to know them, and for them to be at ease with us outsiders. We ate with them, and shared with them what we had. From there, they recognized our sincerity. We spent the first few days just getting to know them, and socializing with them. We found out about their culture, what we could and could not do while in their environment. We did not embark on our project immediately, until we felt they were ready. However, it was during the socialization period when we delicately approached the subject matter of our project with them, in an indirect or roundabout manner. Just getting to be able to socialize with them needed a lot of practice and experience, as one indigenous group's ways are different from another group. (Brodie, Hill)

Although Brodie did not specifically mention trust, it can be inferred from his statement above that there were certain processes that the CI had to go through in the initial gaining of trust from the indigenous people. Brodie also implied that gaining trust from them takes time, and that a person's knowledge and experience in socializing with the indigenous people makes a difference. He also stated that the ways or traditions of one indigenous group are different from another's. Therefore, Brodie's statement indicates that it is essential to learn how to conduct oneself in the midst of an indigenous community, and to be able to

know when it is the appropriate time to broach the subject of the CI's intentions of acquiring some of the knowledge of the indigenous people.

Mandy, of Highlands, used the analogy of a tap to describe her experience of working with the indigenous people. She found that establishing rapport with the indigenous people eventually led to them trusting her and her team:

> Well, trust is something that you have to develop over a period of time. I had been here [in this organization] about four years, and I had come to realize that they [the indigenous people] need to have trust in you. They need to know that you are not exploiting them. They need to know that you are not going to give whatever they consider sacred, whatever they consider their property, to other people. And they need to know that you have their welfare at heart. The trust part is *so* important. Even after we had been visiting the community for a few years, we knew that they had not given us some of the really good ideas. They had only given us the common knowledge. Each time we went to them they gave us a little bit of knowledge at a time. It is like a little tap, and they open it bit by bit. We didn't expect them to give us everything. We knew they were not going to give us everything. We worked on what we were given. We have to continuously build their trust in us. (Mandy, Highlands)

While Mandy's statement above is explicit on the matter of building trust, the subsequent process is keeping the momentum in sustaining the trust.

Niman, Mandy's colleague, shared her experience on the time taken by the community she worked with:

> As an example, working with one of the Orang Ulu communities in Long Iman, it took about a year for us just to get them to open up. This community, they have a lot of plants that they use for medicinal purposes, and they still roam the forest. It took us a whole year to actually work with them. We visited them every three to four months, and every time we came to them, they would be excited "oh, you are back again, you are back again." So now when we are there we are [treated] like part of their family. They are more than willing to share their plants and their knowledge, even before we ask them. Recently, when we went back there I saw this plant, and I told them I have never encountered this, and they said "oh yes, because we have never told you about this plant"... after all these years! (Niman, Highlands)

Mandy's and Niman's statements above infer that the levels of knowledge the community or the knowledge holder is willing to share with the CIs depends on their levels of trust in the staff of the CIs. However, once the indigenous communities became familiar with the CI's staff, they were more than willing to collaborate.

Using Mandy's analogy of the dripping tap, once it is properly turned on, it will eventually let the knowledge flow, although slowly. Building rapport, establishing relationships and eventually gaining trust from the indigenous communities requires time, skills and patience in acquiring knowledge from the indigenous people. These elements, i.e. rapport, relationships and trust, help 'turn on the knowledge tap'.

In their statements above, Mandy and Niman showed the importance of the consent of the knowledge holders in their willingness to share their knowledge with the CIs and collaborate with them. This consent also signifies that the knowledge holders trust the CI staff sufficiently to safeguard their knowledge. Another prerequisite of trust that knowledge holders need is the understanding that the knowledge that they share with the staff of CIs will be respected, and their knowledge will only be used in accordance with the purpose for which it is intended. This consent is tacit knowledge, so there are no official or printed documents as evidence, but this consent is of the utmost importance.

In safeguarding ICH in the cultural institutions, the involvement of the indigenous people or source communities is essential. The issues raised in this section involve creating the relationships with the source communities, obtaining their consent, gaining their trust, and sustaining their trust. The organizational knowledge opportunity for the CIs is for inter-organizational sharing of their collective experiences in managing these issues, compounded by the number of different indigenous groups in Sarawak and the complexity of their knowledge, as shown by the findings in Chapter 5.

The complexity of indigenous knowledge raised the second major category of issues faced by the CIs in safeguarding ICH, which I elaborate in the next section.

6.3   The complexity of indigenous knowledge

The Tiers of Knowledge as discussed in Section 5.4 show the complex nature of indigenous knowledge. Based on the stories from the indigenous participants, I illustrate this complexity further by showing the dimensions of indigenous knowledge as a knowledge ecosystem (Section 5.2.4, Figure 12). This illustration was derived from my analysis of the stories from my data in Chapter 5 on the nature of knowledge. Data from the CI participants reflect the complexities and the components of the knowledge associated with an item of ICH, as illustrated in Figure 14 below. There is interconnectivity or cross-referencing of each knowledge component in an ICH. For example, knowledge from a master knowledge holder is linked to the knowledge of the rituals required before the commencement of knowledge sharing. These rituals are accompanied by other ICH such as the chants and traditional prayers, and other paraphernalia used. These components of knowledge are tacit, embedded in the ICH and the minds of the knowledge holders.
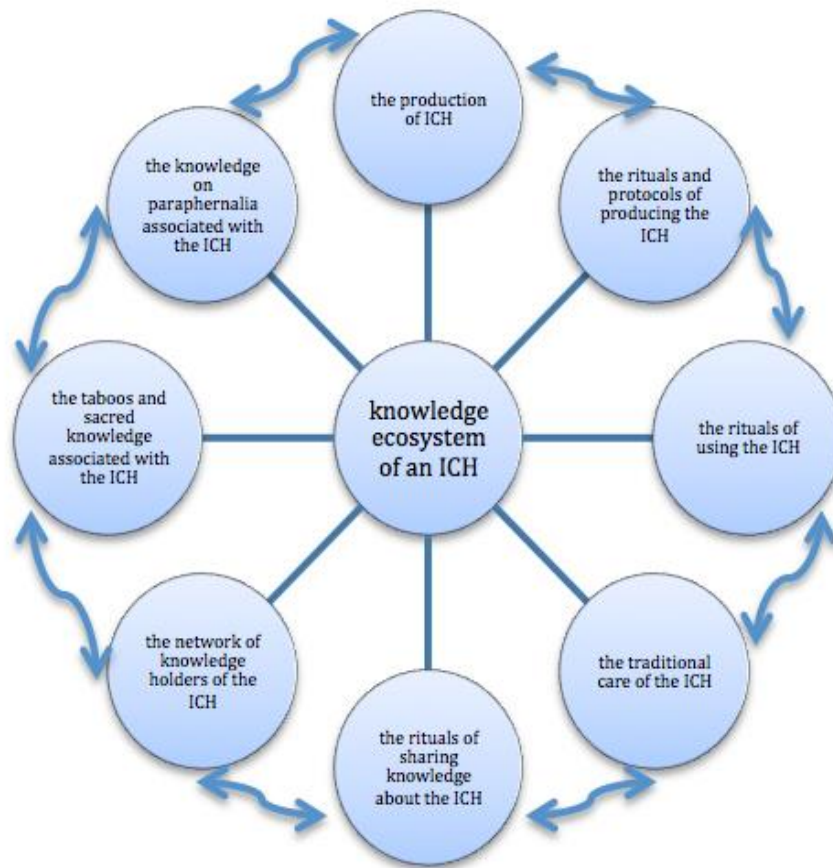
Figure 14   *Knowledge Ecosystem of an ICH*

The complexity of inter-related components of indigenous knowledge can be seen as layers of knowledge the CIs have to document. These complexities of indigenous knowledge, brought about by the different dimensions and components of knowledge, require the CIs to have deep and advanced knowledge about indigenous knowledge. This issue affects the CIs' need to prioritize which of the dimensions and components are to be safeguarded. These complexities are further compounded by the different languages used, as explained in the section below.

6.3.1   The complexity of language

In Chapter 4, I discussed the multi-ethnic components of Sarawak's population. There are twenty-eight main indigenous groups in Sarawak. These groups usually have sub-groups. For example, the Melanau have eight different sub-groups: Melanau Mukah, Melanau Dalat, Melanau Oya, Melanau Matu-Daro, Melanau Belawai-Rejang-Jerijih, Melanau Ba'ie Bintulu, Melanau Balingian and Melanau Miri. Although they have similar cultural and linguistic backgrounds, each sub-group's dialect has its own characteristics. These characteristics are more complex than the spoken words.

Jelia, Rami's colleague at Valley, is an Iban, and she highlighted the issue of language as one of her main challenges. While she acknowledged the large number of distinct indigenous groups and different ethnic languages, it was not so much the spoken language that was the issue for her, but more the 'language of the knowledge' that she found mystifying in her experience of acquiring the source community's knowledge. She shared one experience when she was on a project acquiring knowledge from a Melanau knowledge holder:

> When he shared his knowledge, he used the Melanau way of sharing, using the Melanau terms, songs and *pantun*[35]. Each time he talked, then followed with the songs and *pantun*. He repeated the songs and the *pantun* to me, and I was lost in the process. I had to ask him to repeat, because the songs alone can get you confused. He shared his knowledge with me in Melanau [language] and that in itself is a communication barrier for me. I just let him continue with his way and in his language. But after hearing him, I had to think, re-organize and restructure myself on how best to get the knowledge from him in a continuous way, without offending him. (Jelia, Valley)

Jelia experienced the impact of this factor, i.e. the language used by the knowledge holder, in the acquisition of traditional knowledge. From her story above, the knowledge holder used the best way that he knew to share his knowledge, i.e. by expressing his knowledge through his songs and *pantun*. The

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[35] *Pantun* is an oral traditional expression, in the form of poetic verse, usually in a stanza of four lines, where the first two lines give leads to the following two lines. The rhyme structure is ABAB.

songs and the *pantun* are the language of his knowledge. So Jelia had to understand two layers of languages within the same language. The first was Melanau, the mother tongue of the knowledge holder. The other language was the 'knowledge language', i.e. the songs and the *pantun* that the knowledge holder used to express his knowledge. The 'knowledge language' also usually carries with it deeper meanings, which might not be explicit enough to be easily translated.

Alys, a researcher with River, who is an Orang Ulu, mentioned that although he is an insider of the Orang Ulu, he still faced language as an issue when he worked with his own indigenous community:

> In the case of the Orang Ulu, it is even more complicated because the Orang Ulu group consists of more sub-groups, many languages, and they have the ethnic groups and sub ethnic groups, like the Kenyah, Kayan, Penan, Punan, Lun Bawang, and Kelabit. Under each group, there are sub-groups, for example, under Kenyah, there are the sub-groups of the Seping, Lahanan, Kejaman, Tagapan, and, under these sub-groups, there are more sub-sub ethnic groups. They are different, and in terms of language too. We are all Kenyah, but as an example, the Tinjar Semop is under this group, but I cannot understand them. (Alys, River)

Language for the same indigenous group can vary if the individuals are located in different geographical locations, as illustrated by Alys in his statement above.

Moreover, there is the issue of unspoken language while in the company of the indigenous groups. As explained by Rami in the earlier section, he had to follow the body language of the knowledge holders. The complexity of this knowledge on protocols arose from the various sub-groups and languages within an indigenous group. Each group had variations on the culturally appropriate protocols for approaching them.

Thus, language adds another dimension to indigenous knowledge, with its own sub-layers composed of: (i) the protocols that include *body language* associated with mannerisms when in the company of the source communities; (ii) *the language of daily conversation,* which is the ethnic language of the respective source community; (iii) *the language of protocols* with the elders and different

indigenous groups, as illustrated in Section 6.2.1.1 above, and (iv) *the language of the knowledge itself*, as explained by Jelia above.

6.3.2   Knowledge-specific protocols

During processes of indigenous knowledge documentation, which is part of safeguarding, the CI participants identified another type of protocol they have to adhere to before documentation can take place. These protocols relate to specific types of knowledge. The protocols cover the taboos and other forms of cultural sensitivities that must be followed or observed due to the actual requirements of the knowledge, or requirements related to the process of sharing the knowledge. Sometimes, the sharing of knowledge involves requirements related both to the knowledge itself and to the process of sharing the knowledge. Failure to meet these requirements restricts the sharing of knowledge as well as the types and levels of knowledge to be shared, which can hamper the CIs' safeguarding efforts.

In this sub-section, I illustrate two knowledge-specific protocols identified by CI staff: (i) the fulfilment of knowledge requirements, and (ii) the fulfilment of spiritual consent for some categories of indigenous knowledge. According to the informants, these requirements are specifically related to the kinds of knowledge being considered for sharing or transfer. There is a correlation between the requirements and the tier/type of knowledge as discussed in Chapter 5.

6.3.2.1   *The fulfilment of knowledge requirements*

Depending on the type of knowledge, there are certain requirements that have to be fulfilled before the actual use of the knowledge, including whether the knowledge holder intends to share the knowledge with someone else. The knowledge requirements have to be fulfilled before any action of use or sharing can take place. As Hekel explained, it is necessary to find out the knowledge requirements at the outset. Examples of knowledge requirements are the taboos associated with the knowledge and the process of using or sharing the knowledge, and the material accompaniments, if any. Material accompaniments,

as explained by the participants, can be in the form of metal materials such as small pen knives or needles. Other examples of material requirements are threads, plants and food-related items.

Finding out what these knowledge requirements are is necessary before the CIs can safeguard knowledge from the knowledge holders. Hekel further commented that acquiring trust from the indigenous people was not confined simply to the ability of the staff of the CI to explain their purpose for safeguarding. The seriousness of the CI's desire to safeguard their knowledge was also measured by the ability of the CI to meet the cultural requirements of a particular type of knowledge.

Hekel explained that when they conducted fieldwork, he always asked the knowledge holder first about what the taboos and rituals were required before documentation could be carried out. The ability to meet the requirements of the knowledge is the next step in the process of gaining trust from the source communities. He emphasized:

> Their [the indigenous community's] trust in you later on depends on how you attend to the taboos that they have been telling you about, and whether you are able to adhere to whatever requirements the rituals entail. For example if you have to give an off-white fowl, as a *pengeras,* you have to give an off-white fowl, which is not easy to find nowadays. (Hekel, River)

Hekel related his experience in the acquisition of healing knowledge of the Melanau shaman or healer. The challenge, according to Hekel, was in finding the ICH objects to meet the knowledge requirements, which are needed before the sharing of knowledge can take place. He gave the example of the off-white fowl as one of the *pengeras* or ritual propitiation objects that was required to be presented to the knowledge holder, not because the knowledge holder requires the fowl, but because it is a traditional requirement of the knowledge. Hekel added that if the CI is unable to find or produce the necessary material requirements, this affects the acquisition of knowledge from the indigenous people. He stressed that if the knowledge requirements are not met, then the

indigenous community is unable to share their knowledge. The depth of trust is enhanced by the ability of the CIs to meet the knowledge requirements.

Jawie (an officer with River), however, indicated that sometimes it was not because the indigenous people did not trust someone from outside seeking their knowledge. Jawie mentioned it was more a case of being "scared to displease the spirit, in case something bad befell the knowledge giver if there was no spiritual consent".

Hekel further supported Jawie's statement:

> Although most of the indigenous groups have embraced other religions, animism is still practised by them. Some still believe in the spirits of many things. One of the reasons knowledge holders were sometimes reluctant to share their knowledge is that the music from the gongs or the songs they played were designed to call the spirits, or to please the spirits. Therefore, in re-enacting or playing the songs or reciting the chants for the purpose of documentation, the knowledge holders still had to make some kind of offerings to the spirits to inform the spirits that they were going to sing the song, that the songs or chants were not to call the spirits, and as such, they ask the spirits not to interfere. (Hekel, River)

This need to appease spiritual entities is further explained in the next sub-section.

6.3.2.2 *The fulfilment of spiritual consent*

The spiritual realm of traditional knowledge of the source communities requires the consent from the spiritual owner of the knowledge. According to the participants, this consent was the most challenging for them when working with the indigenous people during knowledge documentation. They added that the concept of spiritual consent is something that cannot be detached from indigenous knowledge. It is this consent that can make the knowledge holder either agree or not agree to share their knowledge with the CIs.

The need to obtain spiritual consent, according to the participants, depends on the kind of knowledge. This type of consent is a component of the knowledge protocol. In Western methods of ethical research, consent has to be sought from

the participants in the research. However amongst the indigenous groups, whenever they need to share their knowledge, they seek consent from the spirits, or as some of the participants put it, the spiritual guardians of the knowledge. Seeking of spiritual consent is illustrated in the following stories from the participants.

Embun shared his experience of working with the Iban community in acquiring their oral traditions. Embun explained the significance of meeting a knowledge requirement amongst the Iban as they believe in the spiritual dimension of knowledge:

> The initiation [before the knowledge sharing commences] is an important ritual in knowledge sharing amongst the Iban. In this ritual, *kering semangat*, you have a piece of iron in the form of a small knife or *parang*, which you bite, and then put your hand inside a ceremonial jar which resembles putting your soul inside the jar so that it [the soul] would not wander around during the reciting of the chants.

The oral traditions of the Iban, as Embun also explained, are mostly linked spiritually to their belief in the sacredness of their environment. He noted that the reciting of their ceremonial chants involved the calling of spiritual elements, thus the knowledge holders insisted others around them be protected by doing the *kering semangat* ritual. Embun added that since he was one of the others during the initiation ceremony, he had to partake in the rituals, in this case, biting the *parang*, and putting his hands in a jar.

Embun also explained the tradition of doing the *miring*, an offering ceremony amongst the Iban. In this example, Embun experienced the *miring*, which was conducted before the knowledge sharing process commenced. He explained that the *miring* was performed to seek consent from the spirits to ensure the event was free from any untoward incidents. According to Embun, depending on the type of knowledge, the staff of the CIs either just witness the rituals or are part of the rituals performed by the knowledge holders. Embun explained that these rituals formed a component of the ICH, and according to him, without these rituals the ICH would be incomplete.

Often, Embun and his team of researchers had to wait for the events or occasions that used the different types of oral traditions to happen. The knowledge holders carried out the events after spiritual consent was received. When gongs were played and the chants were recited, these activities were done to call the spirits for the purpose of the events. Embun further explained that such events or occasions could not be re-created or re-enacted just for the purpose of recordings or documentation.

Embun explained this need to observe the rituals was due to the fear of retribution from the spirits. This aspect of knowledge sharing sometimes made knowledge holders reluctant to share their knowledge for purposes other than what the knowledge is for. Another issue that could affect the knowledge acquisition process is when the source community is unable to share its knowledge due to the knowledge requirements not being met. One example is when there is no practitioner who is able to carry out the initiation rituals for the knowledge.

Jawie concurred with Embun on this matter, and based on his experience, he elaborated:

> One of the reasons is because they are scared, because to them if you displease the spirit something bad happens. For example, if you ask them to perform a type of dance for you, they would not do it, until they have sacrificed a chicken, for example, or done the *miring*. These acts are to appease the spirit, because the gongs they play will disturb the spirit, and the songs they sing are to call the spirit. Even though they are mostly Christians, they still have that feeling of fear. But once they have done the *miring* or any form of offerings, they will tell you whatever they know, although of course, not all at one time. (Jawie, River)

In the next story, the participants from Lake shared the experience of their team during the documentation of a Melanau traditional healing. According to Dayani, the team leader, they took photos as well as recording sound and video.

The research participants from Lake recounted several interesting stories about the need for spiritual consent. Dayani explained the need for spiritual consent

when they conducted a documentation project on another Melanau ritual healing process, but this time it was for the use of *dakan* or effigies in the process of traditional healing. Initially the healer was reluctant to share his knowledge with Dayani's team. As explained by Dayani, he only agreed after much negotiation.

> When my team and I approached him and explained to him that we were documenting [the knowledge about *dakan*] for the preservation of knowledge, only then did he agree. During the sessions our team experienced several untoward incidents. The camera's lens suddenly broke. The knowledge holder informed us that the spirit was not happy about how the effigies that were placed in [one of the regional CIs] were not taken care of properly, that is, the normal housekeeping, cleaning and traditional care of the effigies were not carried out. That meant the spirit was still there in the effigies although they were not being used for healing anymore. During the documentation process, one of the team members was able to visualize the spirit behind the knowledge holder while they showed the video at the CI where the effigies were located. (Dayani, Lake)

Dayani added that this traditional healer had reduced the range of traditional healing practices he undertook due to changing religious beliefs of his own as well as of the communities he served, compounded by the advent of modern medicine in the communities. According to Dayani, since the healer has little use for the effigies now, he donated some of the ones he used in his healing rituals to a CI for safekeeping and these effigies were displayed to the public. However, the healer told Dayani that he still believed the spirits were present in the effigies, although the effigies were no longer in use. These situations raise an interesting issue of the complexity in recording indigenous knowledge material, using modern technology such as audio-visual equipment, in an environment in which the researchers were intimately involved, invoking emotions, which perhaps affect their objectivity.

Rami, an executive with Valley, recounted the sessions he had with another Melanau knowledge holder during the documentation of Melanau traditional dances. Rami explained that the knowledge holder did not say 'yes' or 'no' when he was asked to share his knowledge on Melanau dances.

All he said was "beat the *gendang*[36]". The beating of the *gendang* was done to call Ipok, the spirit of the knowledge. If Ipok emerged, then the sharing of knowledge could take place. But when he taught me the dances, it was not 'him', he was already in a trance. He was able to show me when he was spiritually possessed. That was why he was not able to say yes or no to our request for him to share his knowledge because it was not up to him, but to Ipok. The knowledge holder is only the custodian of that knowledge, but the owner in this case is the spirit of Ipok. (Rami, Valley)

According to Rami, the knowledge holder was unable to say yes or no to his request mainly due to two reasons: (i) the traditional knowledge he was about to share involved spiritual elements, and (ii) the sharing of knowledge can only take place if the spiritual elements gave consent. Rami also had experiences of occasions when the Ipok did not appear. When that happened, his Melanau informant would not be able to share any kind of knowledge with him. According to the knowledge holder, knowledge shared without spiritual consent could invite harm, either to the knowledge holder or the knowledge seeker, but most likely to the knowledge holder.

These stories provide examples of issues faced by the CIs in acquiring knowledge from the indigenous people and learning about the fulfilment of the cultural and knowledge protocols.

Another issue besides the need for spiritual consent is the need to get the community's consent before the knowledge holder gets the spiritual consent. This is important because, as Adina (an executive from Lake) stressed, the knowledge holder might not receive the communities' blessings. In order to get spiritual consent, the healer had to call for assistance from the spirit. If the process of calling the spirit was not carried out properly, it could create a spiritually imbalanced environment in the community. This imbalance was what the community feared, as such an imbalance, according to their beliefs, could

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[36] *Gendang:* a drum-like musical instrument, made of cow skin, covering a hollow wooden base and fastened with rattan. This kind of drum is used in the Melanau and Malay communities.

cause unwanted calamities in the community. This matter was mentioned by Adina who recounted what she and her team experienced when documenting the *bebayuh*, a Melanau healing ritual, when spiritual assistance was required during the re-enactment of the ritual:

> During the actual filming and recording, they had to re-enact the *bebayuh* process. Although the knowledge holder, a lady, had not been practising this healing process for quite some time, she, however, gave consent to us, after she understood our intentions and the purpose of our documentation project. She also took the initiative, first to seek consent from the community surrounding her. The community gave her the consent. Even though the session was for documentation purposes, and it was a re-enactment of the *bebayuh* process, she felt there was a need to inform her community as the process involved the calling of spirits. *Bebayuh* as a practice has become almost extinct as the community embraced other religions [Christianity and Islam] and the practice of the *bebayuh* was against the beliefs of these religions. The Christians and Muslims in the community could be against this as it was not in line with the teachings of these two religions. Thus *bebayuh* is no longer being practised. But, during the filming it was easy for the knowledge holder to call up the helper, her spiritual companion, which allowed and helped her to do the rituals, although it has been dormant in her. (Adina, Lake)

In Adina's story the knowledge holder sought consent from the community surrounding her, as she knew the knowledge she was to share by the re-enactment of the practice might affect the community. This act reflects her responsibilities as a holder of sacred knowledge. Knowledge sharing for the purposes of documentation would not be possible if the knowledge holders could not obtain spiritual consent, or if the knowledge holder is not able to gain the community's blessing. These are the fulfilment of the knowledge requirements and spiritual consent that need to be observed before and even during the acquisition of knowledge from the source communities.

Protocols for people-related processes, according to the participants, were easier for them to learn and for the indigenous people to share with them. However, the most challenging one for the staff was the knowledge protocol for spiritual consent. The participants noted that this knowledge could not be shared with

them, as most of this type of knowledge is sacred. The knowledge holder had to know the spiritual protocol in totality in order to appease the spirit. The participants were totally dependent on the knowledge holder to carry out the rituals for getting spiritual consent. Knowledge sharing for the purposes of documentation could not be carried out if the knowledge holders were unable to secure spiritual consent.

6.4   Organizational safeguarding initiatives

Each of the CIs has their specific areas of indigenous knowledge to be safeguarded. As an example, River focuses on identifying and documenting the different oral traditions, with the aim of using the materials to produce native law codes. Their safeguarding includes the identification of knowledge holders, recording oral traditions, and documenting them in text form, including indexing them for easy retrieval and cross-referencing. An example that I viewed during the interviews was the documentation of chants and indexing the chants which described the journey to seek blessings from the gods for the padi seeds during *the Gawai* or Harvest Festival. 'Many of the songs and chants have gone, as they have not been written down over generations. We are trying to salvage what is left' (Embun, River). According to Embun, the involvement of the knowledge holders was continuous, from the beginning of the documentation, during the documentation, and helping him in the writing down of the oral traditions. The knowledge holders were also there to coach the researchers in the interpretation of the songs and chants. River also organized seminars and workshops with the different indigenous groups for feedback on the codes of native laws they produced.

6.4.1 Interpretive sessions

The CIs usually organized interpretive sessions with the source communities as part of their strategies to elicit tacit knowledge when the indigenous knowledge holders find it a challenge to explain certain parts of their knowledge. Awie, a researcher with Lake, shared his experience in acquiring knowledge on the meanings of movements in traditional dances.

> A traditional dance expert would not know how to translate what their movements are and why such movements were made. I know they have names for certain movements, and their local terminologies for their dances, but they do not know how to explain them. However it is done through showing their skills, they transfer their knowledge by showing how, and by doing the dance. (Awie, Lake)

Awie emphasized that observation on their part is critical, as this provides opportunities for them to ask the source community more in-depth questions on the knowledge to be acquired.

Niman gave another example of interpretive sessions, where the sharing of knowledge is carried out during evenings with the source community, using the Iban *berandau* concept, as explained in Chapter 5.

> We gather the men and women together, and we review the artefacts. It is interesting to note that there can be some differences in the understanding of the use of the artefacts, between the men and the women. The knowledge holder leads the discussion, and the other people in attendance provide other knowledge on the same artefact which is only known to them. We have review sessions at night where we group everybody together, and that's when they share how the artefacts are used. Usually they will talk about the different parts used. Different people share different ideas on ways the artefact can be used and the names. These are shared amongst members of the community. During this time there is a lot of interaction, like between the young and the old, male and female. For certain artefacts, the males will be saying they use them in different ways and for different purposes than their women counterparts. Sometimes, they did not realize the differences in usage, so in this way there is sharing of knowledge. (Niman, Highlands)

These interpretive sessions also act as a check and balance, for the knowledge holders to consult and confirm with other members during the review session. Such a method also allows the researcher to trigger questions for the knowledge holder, and the source communities. Asking questions of the knowledge holder helps the researcher from the CIs to probe for deeper understanding of their knowledge.

One of the CIs (Highlands) encouraged their target indigenous groups to create interpretive centres, where they can put their cultural artefacts together for continuous interpretive sessions, aimed not just at the CIs, but also as a safeguarding effort to instil respect for them into their communities, especially the younger generations.

6.4.2 Self-documentation

Most ICH is still tacit in the oral traditions of the indigenous people. One of the ways of acquiring knowledge from the source communities is to allow them to create their own documentation, through recordings or written text. Niman and Mandy gave an example of their organization's approach to safeguarding the people's oral traditions. The source communities they worked with were provided with the necessary equipment such as an audio recorder, a camera and sometimes a video camera. According to Niman and Mandy, their organization favours this method as it helped the knowledge holders to be independent from the researchers, as there were always occasions that cannot wait for the presence of the researchers. This enables the source community to record the knowledge at their pace, in their language, and especially when the occasion happens and the staff of the CIs were not able to be with the source communities to record the event. Niman explained:

> We taught them [the source community] how to document their knowledge through our human capacity building programmes as part of our knowledge acquisition projects. We sit down and tell them that if they do not want to share the knowledge with us or with anybody else, we emphasize that they should document it for themselves, and keep it for

their own use, and if they are ready to hand it over for the next generation at least they have the documentation ready.

Mandy emphasized that the source communities were given audio tape recorders with a few cassettes which they keep.

> We teach them how to use the tape recorder, and once they start recording they can keep the tapes, so they can play them to their children later. We told them it is alright to use their own languages. It is for their benefit. If they tell us in Bahasa[37], we record, but if it is in, say for example in Kayan[38], which we might not understand, they can keep the knowledge. We realized that when they document it in Bahasa, the knowledge is not comprehensive enough. But when they do it in their own language, they add lots of stories. So everything is taped by the community. We encourage the community to do the recording themselves.

Niman stressed the importance of respecting the confidentiality of the indigenous people's knowledge:

> We only record traditional knowledge which is provided and shared by the communities. If the communities want to keep certain knowledge confidential, they will not share it with us. However, we encourage the communities to document this confidential knowledge and keep it for themselves and their next generation. If they are ready to share this knowledge with us, we also encourage them to do so. All knowledge documented by us is not shared with the different communities that we visit. All information is kept confidential and not disclosed. Access to this documentation can only be granted with the consent of the knowledge holder. (Niman, Highlands)

In this method, Highlands as an organization introduced a collaborative effort in documentation of ICH. This effort entails the consent of the source community, not just in sharing their knowledge, but also their consent to participate in training on how to capitalize on the recording equipment given to them.

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[37] Bahasa Malaysia, *Malay language which is Malaysia's national language*
[38] Kayan *is the indigenous language of the* Kayan *people, one of the indigenous groups of the Orang Ulu*

6.4.3   Organization, dissemination and sharing of intangible cultural heritage

Dissemination and sharing of ICH is also part of safeguarding measures. The CIs employed several methods to disseminate and share the people's knowledge. Highlands holds knowledge sharing sessions with other organizations and the public:

> …through oral presentations and poster presentations during workshops, seminars and conferences. Sometimes, given the opportunity, the community representatives are also invited to present their experience in documenting their indigenous knowledge. (Niman, Highlands)

In Hill, beside the involvement of the indigenous people in the collection of ICH, knowledge holders were often consulted in the preparation for and curation of exhibitions for the public, or when a certain item of material culture needed certain cultural treatment. An example given to me by the participant from Hill was when the burial pole, an ICH item from one of the indigenous groups, needed to be relocated. A group of indigenous knowledge holders was invited to conduct the traditional sacred ceremony before the removal and another ritual during the placement of the burial pole at the new site.

All the CIs interviewed for this study have staff recruited from different indigenous groups of Sarawak, which helped the CIs as first level intermediaries. From the participants' feedback, the participation of indigenous knowledge holders was mostly project based, or when the need arises, such as the relocation of the burial pole as mentioned above.

In organizing the ICH acquired from the indigenous people, knowledge organization, such as indexing the songs and chants, was mentioned by Embun. River, as an organization dealing with the oral traditions of the indigenous people of Sarawak, is often consulted by the other CIs, due to their experience in working with the different indigenous groups. Lake created advisory tools for the appropriate indigenous name protocols for metadata entry. However, there is a need for the expansion of the classification system to address the shortfalls of the current Western-based classification system used by Lake. Highlands, Hill and

River have created separate types of classification for metadata entries for retrieval of their collections to address indigenous matters. This is an opportunity for a convergence of taxonomy that can be used across the Sarawak CIs.

For each of the CI interviews, one question I asked was about addressing the knowledge they created from all these safeguarding processes.

> The knowledge given to us by the [indigenous] community is captured and documented. But on how to manage the knowledge on the difficulties and challenges that we encounter while doing the projects [with the indigenous people], I do not have any comments. The processes of how to work on the projects with indigenous people are still in the individual staff. When I am no longer [working] here, the perspectives might change. It depends on the individual. (Mandy, Highlands)

Hekel's statement further accentuates Mandy's statement:

> We have two research assistants in my section. I would bring them to the field and show them how I do it, the types of questions to ask and most important, how to ask the right things. My mission is not to be here [working in the organization] forever. I would have to hand down my knowledge to someone. I share with them how to approach certain topics when working with the people. When I look at it, we have to have the knowledge to carry out the work of what we are doing right now. So, when we talk about sharing our knowledge, it should include the procedures and the methods we have. There is a certain approach, from one person to another [the indigenous people], for example, we are not allowed to ask the same question of all the indigenous people, the approaches we used followed certain indigenous protocols. Some research participants are protocol conscious. (Hekel, River)

The statements made by Mandy and Hekel above are representative of the Sarawak CIs' limited awareness regarding the wealth of their own organizational knowledge derived from the processes of partnership with the indigenous people for safeguarding Sarawak's ICH. Although the CIs took initiatives to safeguard knowledge of the indigenous people, little was done to safeguard their own organizational knowledge derived or created from the practices or processes of safeguarding ICH. This is an organizational KM issue that needs to be addressed.

6.5 Summary

To answer the second research question, in this chapter I have presented the findings based on the interviews held with the participants from the CIs.

Below, I summarize the issues that the CIs in Sarawak face in safeguarding the ICH:

(i) The CIs need to gain, build and sustain the trust of the indigenous community and specifically the knowledge holders, before the indigenous people share their knowledge, which is necessary for on-going collaborations. Socializing with the indigenous people requires considerable practice and experience, as one indigenous group's social protocols are different from another indigenous group's. This requires the staff of the CIs to acquire culturally appropriate skills for approaching the indigenous people, and the skills and negotiation knowledge that are culturally appropriate.

(ii) The CIs need to be aware of cultural sensitivities and to ensure compliance with cultural and knowledge protocols as part of trust building, and to acknowledge that indigenous knowledge is embedded in the protocols, and the need to incorporate knowledge on protocols and sensitivities as part of the CIs' organizational knowledge.

(iii) The complexity of indigenous knowledge requires the consent of the indigenous people to collaborate with the CIs to safeguard the knowledge in totality, including the entire indigenous knowledge ecosystems.

(iv) There is limited awareness on the part of the CIs on safeguarding their own organizational knowledge.

In the next chapter, I discuss the findings of both Chapters 5 and 6, and answer the third research question of my study.

Chapter 7   *Discussion*

In this Chapter, first, I summarize the findings, and how these answered the first two research questions. This will be followed by a discussion answering my third research question:

RQ3

How can knowledge management support or facilitate the cultural institutions in safeguarding the intangible cultural heritage of the indigenous communities in Sarawak?

7.1   Summary of findings

The geographical spread of the indigenous people of Sarawak, and the numerous different indigenous groups of Sarawak (as illustrated in Chapter 4.1) indicate the necessity for the CIs to intensify their collaboration with each other in the safeguarding of Sarawak's indigenous knowledge. I experienced these challenges – the geographical and multi-indigenous groups – during my data collection fieldwork. Moreover, the vastness of indigenous knowledge and ICH to be safeguarded compounds these challenges.

In line with the post-colonial paradigm of involving the source community in safeguarding their ICH, I explored the nature of indigenous knowledge and the sharing of such knowledge by the indigenous people of Sarawak. The data in Chapter 5 provided narratives, which, upon analysis, reflect the complexities of Sarawak's indigenous knowledge system, which I explained as the Tiers of Knowledge. In Chapter 5 also, the narratives explained the traditional requirements of the source communities for sharing their knowledge. It is crucial for the CIs to understand the ecosystem of indigenous knowledge as their understanding affects their safeguarding of ICH.

In Chapter 6, the narratives from the CIs reflect their knowledge of working with the source communities' indigenous knowledge and the indigenous protocols of working with the source communities. From the analysis of the narratives from the CI participants, the CIs were focussed on safeguarding knowledge from the indigenous people. However, they sidelined the management of their own organizational knowledge. This is the gap I identified: the need for the CIs to manage their own organizational knowledge created from their experiences in safeguarding indigenous knowledge.

In my earlier conceptual framework, informed by the literature (Section 2.10), the roles of the CIs, the engagement of the indigenous people as the source communities, the nature of indigenous knowledge and the other influences affecting the safeguarding of ICH are all pivotal in the process of the safeguarding of ICH. However, I refined the framework, informed by the data of my study (Figure 15) below. I have used the revised framework to guide this chapter, and the implications of the findings in both Chapters 5 and 6. After examining the implications, I discuss how knowledge management can support the CIs in safeguarding the ICH of the indigenous people of Sarawak.

Influences affecting safeguarding.
Global instruments and movement on postcolonial and postcustodial heritage . Management
Section 7.2

Organization-based knowledge
Section 7.2

The role of cultural institutions.
The CIs of Sarawak (libraries, archives, museums) as collecting institutions with the purpose of safeguarding and preserving ICH.
Section 7.1.3

Knowledge sharing intra- and inter-CIs
Section 7.3

Identifying Knowledge boundaries
Section 7.4

Sharing their ICH with CIs

Collaborating with indigenous people

Implications for knowledge management approach
Section 7.5

The nature of indigenous knowledge.
The Tiers of Knowledge. The ways of sharing.
Section 7.1.1

The role of intermediaries

Indigenous knowledge holders.
They have their own knowledge system.
Section 7.1.2

In the context of this study the *whole organization* in the safeguarding of ICH is a combination of the indigenous knowledge holders, the staff of the CIs, and the group of CIs.

Figure 15   The revised conceptual framework

In my preliminary conceptual framework, there were four components that helped guide my research. These four components – the nature of indigenous knowledge, the involvement of the indigenous knowledge holders, the role of cultural institutions, and the influences affecting safeguarding – are the ones in the boxes in the above figure. The main weakness of the preliminary model is that it was not complex enough to help me answer all three research questions.

My research data highlighted the complexities caused by three major factors:

a)   the nature of indigenous knowledge as revealed by the Tiers of Knowledge

b)   the different and complex cultural protocol requirements of indigenous ICH, compounded by the different indigenous knowledge holders. These factors answer RQ1, and

c)   the roles of the different CIs and their different focus areas, and the issues they encounter in the safeguarding of ICH. These matters answer this study's RQ2.

In answering my third research question, especially in exploring how knowledge management can support the CIs in their safeguarding efforts, I revised the model of my study based on these three major factors. In Figure 15 above, I indicate the respective sections where the various components are discussed. I developed the revised model at a later stage of my study, out of the iterative processes I went through in this research, informed by my data.

My earlier conceptual framework included the influence of external factors such as global instruments and post-colonial movements. My data indicated that these instruments are important, but these were not as complex as the three factors mentioned above. Moreover, my discussions in the subsequent sections will focus on these three factors.

In Figure 15 above, the four initial concepts in my preliminary framework still play important roles in safeguarding of CHIs in Sarawak's CIs. However, my data highlighted that the three factors mentioned above are more complex. Furthermore, regarding implications for knowledge management approaches, three other factors also play important roles:

(i) identifying organization-based knowledge

(ii) knowledge sharing within and between CIs

(iii) identifying knowledge boundaries.

In the context of my study, safeguarding of ICH, in relation to the roles of the CIs of Sarawak, requires the collaboration of the indigenous knowledge holders, the staff within a CI, and between the six CIs (in Section 7.1.3). As indicated in the figure above, the bigger arrow on the solid line on the right of the diagram signifies the given role of the cultural institutions in safeguarding the ICH, and their need to work with the indigenous people. It is also necessary for the CIs to know their knowledge boundaries and their intermediaries (details in Section 7.4). However, as indicated by my data, the indigenous people have their own knowledge system (in Sections 7.1.1 and 7.1.2). My findings in Chapter 5 highlighted that several requirements needed to be fulfilled before the indigenous knowledge holders are willing to share their knowledge with the staff of CIs. Thus the dotted line on the left side of the diagram signifies that it is not a smooth journey for the CIs as there might be occasions where the indigenous communities might be reluctant to cooperate with the CIs. Moreover, if they are willing to cooperate, there are certain knowledge requirements to be fulfilled.

Knowledge sharing of the ICH (discussed in Section 7.3), and the organizational knowledge created by the CIs (Section 7.2) are opportunities for the CIs to take towards adopting a knowledge management approach. The adoption and incorporation of the requirements of the global instruments and organizations – such as UNESCO's *Convention for the Safeguarding of Intangible Cultural Heritage (CSICH) 2003* and World Intellectual Property Organization – create and contribute towards organization-based knowledge. Identification of intermediaries and knowledge boundaries of the CIs' safeguarding efforts also have implications for the CIs' knowledge management. Further discussion of all these factors are provided in the following sections.

7.1.1 The nature of indigenous knowledge

The narratives in Chapter 5 revealed the notion of the Tiers of Knowledge, which gives a better understanding of the nature of indigenous knowledge. The Tiers of Knowledge provide a structure which can be used to assist the CIs in categorizing indigenous knowledge, and in making decisions on the safeguarding practices to be adopted. Safeguarding practices in the CIs, as explained by the CI participants, use documentation as the norm. Documented or recorded indigenous knowledge becomes a knowledge entity that requires proper organization, management and accessibility. The concept of Tiers of Knowledge can also be applied to the CI's own organizational knowledge, although not all organizational knowledge can be made explicit.

In the diagram above, the dotted line that links the indigenous knowledge holders and their knowledge to the CIs indicates the non-linear nature of the process, i.e. the complexities faced by the CIs in attaining the consent of the indigenous people in agreeing to work with the CIs in safeguarding their knowledge. This statement is supported by data in Sections 5.2 and 5.3. The cultural protocol requirements of indigenous knowledge (Section 5.3) are the major cause of the complexities involved in the knowledge holders sharing their knowledge with the CIs.

The experiences and the knowledge created from these practices of working with the indigenous people can be shared within and between CIs. In a nutshell, the *whole organization in* safeguarding ICH is a combination of collaborative practices with the indigenous knowledge holders, the staff of the CIs, and between CIs. As indicated in the revised conceptual diagram above, these factors have implications for a knowledge management approach in the CIs, as will be discussed in Section 7.5.

7.1.2   The different cultural protocol requirements of different groups of indigenous knowledge holders

The narratives in Chapters 5 and 6 highlighted the most important component in safeguarding ICH, which is the involvement of the indigenous people. Their consent to work and collaborate with the CIs is critical for the CIs' efforts in safeguarding ICH, for without their consent, and participation, the stories of the ICH might not represent the voice of the indigenous people. This is in line with the post-colonial aspect of managing the ICH in CIs. The practice of seeking the consent of the indigenous knowledge holders added to the complexities faced by the Sarawak CIs, which were mainly due to the different indigenous groups of Sarawak, each with their own cultural protocols.

7.1.3   The role of the cultural institutions

The CIs of Sarawak have different aims in terms of the types and formats of indigenous ICH to be safeguarded, and thus different practices of safeguarding. Each CI created unique organizational knowledge in their safeguarding practices. Because safeguarding of ICH is an important function of the CIs, and because of the complex nature of the ICH (as outlined in Section 6.3), the CIs have to involve the indigenous source communities (as explained in Section 6.2), hence the continuous arrow on the right side of the diagram. The CIs work with the various ICH of the different indigenous peoples of Sarawak. Each CI creates knowledge boundaries through working with different indigenous groups and with different types of indigenous ICH. The data also revealed the need for the CIs to work through intermediaries to help them liaise with the source communities. Hawkins and Rezazade (2012, p. 1803) described the work of boundary spanners as aiming 'to bridge cognitive gaps between parties'. The CIs thus create boundary spanning organizational knowledge through working with the different indigenous groups, and with intermediaries.

External or global movements in heritage management, as represented by several international instruments such as UNESCO's CSICH and WIPO's recognition of the intellectual property of indigenous knowledge, affect the safeguarding practices

of these CIs. Other international instruments such as the Nagoya Protocol and the Bonn Convention, as mentioned in Section 6.2.1, provided the CIs with the practice of prior informed consent. This is important practice-based knowledge which should be shared amongst the CIs. From such safeguarding activities, these CIs created their organizational knowledge, which requires sharing as a form of safeguarding the CI's own organizational knowledge. Collaborations between the different CIs provide opportunities for convergence. One of the areas for convergence is in matters related to knowledge organization. Possible collaborations could focus on knowledge organization, i.e. the compilation of indigenous taxonomies to assist in expanding or contributing towards standard taxonomies used by the CIs, which were developed based on European or Western knowledge. Collaboration amongst CIs might go beyond the CIs of Sarawak. For example, the Reciprocal Research Network[39] (RRN) portal provides access to cultural heritage materials of 27 heritage institutions from Canada, the United Kingdom and the United States of America. The collections available online include records of Sarawak cultural materials acquired by some of the participating institutions in this network, from as early as the 1900s. These materials are housed in these institutions in the RRN network. The RRN portal created data sets and narratives about the cultural materials, which provide opportunities for Sarawak's CIs to participate and collaborate.

7.2   The implications of the findings

The obligation to fulfil the requirements of international instruments was mentioned by a participant from one of the CIs (Section 6.2.1). The fact that the CIs were established partly to help safeguard Sarawak's indigenous knowledge is strong evidence of the government's acknowledgement of the importance of Sarawak's indigenous knowledge. In fulfilling the requirements of UNESCO's CSICH with regard to the source communities' involvement in the safeguarding process, the data from the CIs indicated an understanding of the need for the

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[39] *https://www.rrncommunity.org/ a collaboration of 27 institutions, mostly museums from Canada, United Kingdom and United States of America.*

source communities' involvement. An example given was the setting up of initiatives such as self-documentation as a two-way safeguarding effort undertaken by the CIs and the source community (Section 6.4.2).

The data presented in Chapter 5 provided an understanding of the nature of Sarawak's indigenous knowledge. The indigenous knowledge ecosystem (Section 5.2.4; Figure 12) reflects the components of indigenous knowledge linking the knowledge to the actors or the knowledge holders. Understanding this knowledge ecosystem also reflects the types of indigenous knowledge, which have a bearing on the ways they share their knowledge. This understanding is critical to the CIs, as it influences the activities of safeguarding the ICH.

Cultural institutions, as knowledge repositories, are knowledge intensive organizations. The implementation of knowledge management in not-for-profit organizations is embryonic (Downes & Marchant, 2016; Lettieri et al., 2004; Rathi et al., 2014; Rathi, Given, & Forcier, 2016), and the motivation to implement KM in these organizations is mainly for efficiency reasons (Lettieri et al., 2004; Matzkin, 2008). Knowledge created by the CIs on safeguarding ICH must be identified and documented to support improvement of the CIs' processes.

To understand the complexities of the indigenous knowledge as elaborated in Chapter 5, and to address the issues that arise when engaging with the indigenous people as identified in Chapter 6, by combining the analysis of data in these two chapters to reach a higher level of abstraction, I observed that the CIs created practice-based knowledge. Hislop (2013, p. 32) characterized practice-based knowledge as knowledge that:

- is embedded in practice;
- is multidimensional and non-dichotomous;
- is embodied in people;
- is socially constructed; and
- is contestable.

In my earlier literature review, I used Spender's (2015) view of the 'firm-first' approach in identifying the dimensions of the CIs' knowledge. Thus, by combining

Spender's (2015) dimensions of knowledge and Hislop's (2013) practice-based knowledge characteristics, I have categorized the findings in Chapter 6 by identifying the safeguarding activities which created the CIs' practice-based organizational knowledge. I summarize this organizational knowledge in the table below.

Table 7   *Practice-based knowledge of the CI in safeguarding ICH*

Major activity	Practice-based knowledge of the CIs
Pre-acquisition	- characteristics of ICH for safeguarding - social network with links to the source communities - the formal protocols for entry into the source community - the cultural protocols of the identified source communities - the post-colonial protocols of prior and informed consent based on local, national, regional and international instruments e.g. UNESCO Convention, WIPO, Bonn Guidelines, Nagoya Protocol

Acquisition of indigenous ICH	- the protocols of gaining, building and sustaining trust from the source communities
	 - indigenous knowledge ecosystem based on the Tiers of Knowledge
	      o the cultural protocols of the ICH
	      o the cultural protocols of indigenous knowledge sharing
	      o the network of indigenous knowledge intermediaries
	 - safeguarding methods

Post-acquisition	- knowledge organization of the ICH e.g. indexing - continuous involvement of the source community - sharing and dissemination adhering to cultural protocols
Inter-CI collaboration	- inter-CI projects - informal collaborations

The CIs' processes of safeguarding ICH in their respective institutions, as demonstrated by the narratives of Mandy and Hekel in Section 6.4.3, illustrated the fact that the participants paid little attention to their own knowledge as a resource of their organizations. Their organizational knowledge on safeguarding ICH is still very much embedded in their practices, as mentioned by Hekel, and thus embodied in the staff engaged in the processes. To the participants from the CIs the obvious knowledge resources to them were the ICH and the accompanying knowledge acquired from the indigenous people. From my observation, and from the comments by the CI participants, except for documentation of processes to meet quality systems requirements, there was minimal effort made to share and manage the CI's own experiences and organizational knowledge related to the processes of acquisition and safeguarding of ICH.

In the following section, I discuss the need for knowledge sharing of the identified organizational knowledge, which is important for enhancing the efficiency of safeguarding processes.

7.3   Knowledge sharing

In industrial settings, knowledge is a vital resource for 'sustainable competitive advantage' (Wang & Noe, 2010, p. 115). In non-profit organizations such as CIs, knowledge as a resource is needed for service improvement. More specifically, in this study, the focus is on how the CIs can improve the safeguarding of ICH. This aspect ties in with the post-colonial movement regarding getting the participation of the indigenous source communities. The literature and the data in Chapter 6 (Sections 6.3 and 6.4) stressed the necessary involvement of the source communities, influenced by requirements of the global post-colonial movement in heritage management and international instruments such as the UNESCO *Convention for Safeguarding Intangible Cultural Heritage.* The experience of each CI staff member involved in working with the source communities needs to be identified, and shared with others in the CIs. Knowledge sharing should be

promoted and encouraged in the CIs in order for such organizations to be 'innovative, flexible, effective and efficient' (Lettieri et al., 2004, p. 16). Knowledge sharing practices in organizations that are competitive enterprises are found in abundance in the KM literature, but in this chapter, I apply knowledge sharing to the context of staff members in cultural heritage institutions, whose roles are to help safeguard indigenous knowledge and ICH.

 'Knowledge exists with and within individuals' and 'at the heart of the people perspective of knowledge management is the notion that individuals in organizations have knowledge' (Ipe, 2003, p. 338). As Ipe commented, 'understanding the process of knowledge sharing between individuals is one step toward a better understanding of knowledge sharing as a whole in organizations' (Ipe, 2003, p. 343). In the context of this study the *whole organization* can be conceptualized as all of the groups and individuals involved in safeguarding ICH, including the various CIs, the staff of the CIs, and the indigenous knowledge holders.

7.3.1   What knowledge do the cultural institutions need to share?

For the purpose of this section, I focus on knowledge sharing with regard to the CIs' knowledge as summarized in Table 7 above. As mentioned earlier, understanding the nature of indigenous knowledge affects the approach taken by the CIs in safeguarding the ICH. The indigenous ways of sharing the indigenous knowledge depend on the nature and types of knowledge, as illustrated by The Tiers of Knowledge. The narratives in Chapter 5 acknowledged the nature of indigenous knowledge which is embedded in their culture and ICH, while some is expressed explicitly in their actions and tangible ICH. The challenge of the tacit nature of their knowledge is compounded by the cultural requirements for knowledge sharing. As discussed in Section 5.3, cultural requirements need to be met, i.e. the cultural and spiritual protocols that need to be carried out for knowledge sharing to take place. As such, the CI's knowledge of cultural protocols is a knowledge resource that should be shared both within the CI and between CIs.

These complexities of Sarawak's indigenous knowledge, as summarized in Chapters 5 and 6, have been experienced by the CIs' staff involved in working with the source communities. The sharing and documentation of knowledge created from these activities is seen to be limited in the CIs. The challenge of sharing organizational knowledge depends on how tacit the knowledge is (Ipe, 2003).

Ipe (2003, p. 344) referred to Weiss (1999) who contended that explicit knowledge, although easily codifiable, and easy to share, also differs in whether the explicit knowledge is rationalized knowledge, which is context independent, or embedded knowledge, which is context dependent. Thus rationalized knowledge is standardized and public, independent of the individuals, and can be readily shared. An example given was methodologies on how to carry out consulting projects. In this study, knowledge on safeguarding depends on how the CIs carry out the safeguarding processes. The process of safeguarding depends on the type of indigenous knowledge the CIs aim to safeguard for the indigenous people. The Tiers of Knowledge can be used to guide the CIs on effective and appropriate approaches to safeguarding, according to the indigenous cultural protocols.

The stories in Chapter 6 illustrated the *know-how* on the acquisition of ICH. Procedural knowledge such as this is codifiable, can be rationalized, and is context independent. However, there is certain embedded knowledge in the acquisition process that is context dependent, i.e. depending on the knowledge holder, and in partnership with the indigenous people. Knowledge is also derived from attending to the components of the indigenous knowledge ecosystem, such as the processes, procedures and protocols of engaging with the network of indigenous knowledge holders. Another example from the data is adhering to approach protocols of the elders (Section 5.3.3). Understanding the nature of indigenous knowledge as reflected in Section 5.2 provides familiarity with the ritual accompaniments in indigenous systems of knowledge sharing. The CIs can create further knowledge on inter-CI collaborations, such as jointly creating a taxonomy of metadata access points for indigenous knowledge. However, the CI

participants placed more importance on the indigenous knowledge acquired for safeguarding, rather than acknowledging the safeguarding processes that contribute to their organizational knowledge.

The experiences of the staff (Section 6.2) in reaching out to the indigenous people, in observing the official as well as the traditional protocols, knowledge on gaining, building and sustaining the trust relationships with the source communities, for example, can be shared, as such knowledge in the CIs is still mostly tacit. The methods of sharing such knowledge and experiences of the staff who have gone through the processes of safeguarding and assimilating themselves into the different indigenous groups, should be explored beyond the storytelling approach, as that is how it is mostly being carried out.

7.3.2   How is knowledge shared?

Knowledge is shared when there is motivation to share and the opportunities to share. According to Ipe (2003), there are two motivational factors that encourage knowledge sharing amongst individuals in organizations, i.e. the internal factors of perceived power and reciprocity from sharing, and the external factors of the relationship with the knowledge recipient or seeker and rewards for sharing (Ipe, 2003, p. 346).

As CIs are non-profit organizations, knowledge derived from safeguarding practices is mostly shared on the job, and in the field, while working with the source communities, as shared by Hekel (Section 6.4.3). Working with the source communities is practice-based knowledge (as exemplified in the narratives in Chapter 6), socially constructed, and the culture of the source communities also affects the safeguarding knowledge. The sharing of safeguarding knowledge will depend on the types of ICH addressed by the CIs. Between and within the CIs, there are different types and formats of ICH to be safeguarded, e.g. River focuses on oral traditions, and within River, there are sections undertaking research on the oral traditions of different indigenous groups, while Highlands focuses on indigenous medicinal properties of plants in different regions of Sarawak. As such,

knowledge sharing between the CIs requires innovative methods. The CIs' inter-agency sharing of their knowledge about the ICH that each has acquired can reduce redundancies and overlaps of ICH acquisition and the various dimensions of safeguarding. The sharing of knowledge on safeguarding processes allows for benchmarking best practices, learning lessons, and finding out about the network of ICH acquisition practitioners and indigenous knowledge holders (Denes et al., 2013; Onciul, 2015).

The narratives in Chapter 6 demonstrated that the practice of knowledge sharing amongst the CIs is mostly informal, based on the staff's personal contacts within the network of other staff from different institutions. Based on the narratives, there were not many formal inter-CI collaborations.

Ipe (2003) suggested knowledge can be shared both formally and informally in the organization, such as through training programmes as examples of formal knowledge sharing or 'purposive learning channels' (Ipe, 2003, p. 349). Ipe iterated that most knowledge is shared through informal relational learning channels. 'Relational channels facilitate face-to-face communication, which allows building of trust, which in turn is critical to sharing knowledge' (Ipe, 2003, p. 349).

7.4   Knowledge boundaries and the role of intermediaries

The success of knowledge sharing lies in the ability to address knowledge boundaries (Hawkins & Rezazade, 2012). In the context of this discussion, I am addressing the sharing of the CIs' organizational knowledge of safeguarding processes. When different staff from different CIs come together to form a common platform of safeguarding practices, according to Carlile (2002), such action will show that each staff member or group of staff with common responsibilities have their own knowledge boundaries.

The understanding of the nature of indigenous knowledge is also critical, as organizational knowledge on safeguarding ICH is moulded by the nature of the ICH. For example, gaining the trust of the indigenous people requires knowledge

on the protocols of approaching the indigenous people. Each CI would have their own knowledge boundaries on indigenous cultural protocols. This type of knowledge boundary is reflected in Smith's observation that indigenous people have their own perceptions and protocols for outsiders to observe when entering their domain (L. Smith, 2008).

The CIs collaborate with the source communities to gain their consent for the identification of, and the subsequent acquisition of, indigenous knowledge for safeguarding purposes. The nature of knowledge, as highlighted in Section 5.2, is agreed on by the participants from CIs (Section 6.2.2 and 6.3) who emphasized the importance of understanding and following the customs, protocols, and taboos of the indigenous knowledge system. These are examples of knowledge boundaries, which form knowledge for the CIs to manage. The CIs will continuously identify the boundaries, and the roles the staff of the CIs play in order to bridge the boundaries, to effectively safeguard indigenous knowledge.

Based on the literature on knowledge boundaries in Section 2.5.2, and quoting Hawkins and Rezazade (2012) for further emphasis, a knowledge boundary 'represents the limit, or border, of an agent's knowledge base in relation to a different domain of knowledge' (Hawkins & Rezazade, 2012, p. 1802). Boundaries are well defined in organizational or enterprise settings. In the indigenous groups, however, examples of these boundaries can be seen based on an understanding of their communities' culture as illustrated in Chapter 5. In using these examples to show similarities or parallels in the knowledge boundaries of the CIs, the knowledge boundaries have to be identified during the acquisition of indigenous knowledge for organizational knowledge assets.

From the data, as narrated in Chapter 6, the CIs go to different indigenous communities, as each CI has specific focus areas of indigenous knowledge to be safeguarded. Each CI has different project groups dealing with different knowledge acquisition projects, and these project groups deal with the same or different indigenous communities. Each group is likely to create knowledge out of the process of undertaking the projects, and each staff member involved in the

acquisition project would have their own tacit knowledge of the 'how to' of acquisition, specific to that particular group of indigenous knowledge holders, and specific to the type and level of knowledge they acquire, at specific geographical locations. Each project has different knowledge requirements, as several knowledge boundaries would have been created. The staff's interactions with the communities of indigenous knowledge holders, and their experiences gained during the process, as well as their personal insights, comprise critical knowledge. This sum of the different parts of knowledge is most often still tacit, overlooked and not managed as organizational assets in the CIs.

Identifying and clarifying the boundaries is one of the first steps in order to manage the boundaries (Palus et al., 2014). Based on my data, I have identified several major categories of boundaries involved in the process of acquiring indigenous knowledge:

> (a) The different communities, i.e. different indigenous communities, and different knowledge holders in relation to the different levels of knowledge on the Tiers of Knowledge
> (b) The language, cultural and customary differences and practices
> (c) The different organizations that the CIs have to work with in order to make contact with the indigenous communities.

Boundary spanning as an organizational activity usually starts when there is a need for information and knowledge when faced with an obstacle (Leifer & Delbercq, 1978). Identifying the kind of input needed and the obstacle faced will determine the types of boundary spanning activities required to address the boundary. From the perspective of the indigenous people, for example, in the sharing of sacred knowledge, identifying the knowledge that sits on the boundary and the requirements for sharing such sacred knowledge need to be addressed and shared with the CIs for their understanding. The tacit knowledge on spanning the boundary, linking the CIs and the indigenous people, is different for each of the different types of boundaries and spanning activities. As evident in Chapter 5, the customary protocols for each indigenous group are different. The knowledge

sharing requirement protocols are different according to the types of knowledge, as seen in the explanation of the Tiers of Knowledge. Such knowledge has to be managed by the CIs.

Each boundary has its own knowledge complexities, and if not identified, slows or obstructs knowledge flow. I found such boundaries to be critical for the CIs to identify, and to know, to enable the CI to manage the knowledge about these boundaries, for effective identification, acquisition and safeguarding of indigenous knowledge. Positive collaborations between CIs and the source communities are essential in addressing the complexities of boundaries, so as to ensure effective knowledge sharing and acquisition.

Carlile (2002, 2004) described the relational properties of knowledge at a boundary in terms of difference, dependence and novelty. The difference in knowledge at a boundary refers to the amount and type of knowledge accumulated due to the levels of experience of the staff, taxonomy, equipment and incentives which are unique in a specialized field. In order to get the indigenous people to share, the CIs have to undertake several activities, and at each activity, there are one or more boundaries, which the CIs have to manoeuvre or negotiate to overcome. The dependence of knowledge at a boundary involves interdependence between knowledge sharing activities and the actors to carry out the activities in order to achieve their goals.

The narratives in Chapter 6 illustrate the dependence of the CIs on several actors (e.g. the indigenous people, the RO/DOs, the headmen) involved in the safeguarding of ICH. More dependencies require more actors, which also increases the efforts to share and assess the knowledge at the boundary. To relate interdependence and actors to the CI setting, safeguarding indigenous knowledge also depends on the intermediaries who link the CIs to the knowledge holders, and most important, the trust and consent of the indigenous people.

7.5   Implications for knowledge management approaches in cultural institutions

The quotes in Section 6.4.3 on the indifference towards managing and safeguarding the CIs' organizational knowledge (Mandy) and the still tacit nature of their organizational knowledge (Hekel) reflected the need for the third research question of my study. In Section 7.1, I highlighted the three major factors that contribute to the complexities of safeguarding ICH, which have implications for choosing the best knowledge management approach. For the purpose of identifying knowledge management strategies applicable to the CIs, I have adapted Binney's (2001) knowledge management spectrum. There are six elements in Binney's KM spectrum (2001, p. 35):

- Transactional – knowledge embedded in technology application
- Analytical – use of big data for trending analysis
- Asset management – processes related to managing knowledge assets
- Process-based – the codification and improvement of practices
- Developmental – human capital development for knowledge transfer
- Innovation/creation knowledge management – collaborations for innovation and knowledge creation

Binney's spectrum is mainly suited to enterprise settings, and it has been argued that this model, in totality, is difficult for non-profit organizations to adopt (Rathi et al., 2016). As CIs are non-profit organizations, I have scaled the spectrum down to only three elements which I believe fit the needs of the CIs in this study. These elements are:

1. Knowledge asset management
2. Process–based KM
3. Developmental knowledge management

I did not choose the analytical and transactional elements, as these apply more to enterprise settings, especially those technology-augmented enterprises, and are thus not within the scope of my study. According to Binney (2001), analytical KM entails the use of a large amount of data, driven by technology. Transactional KM provides the data input for analytical KM to forecast trends and patterns. Innovation and knowledge creation are undertaken in order for the enterprise to have a competitive advantage over other enterprises, and Binney (2001, p.37) stated innovation in enterprise settings is more geared towards the creation of tangible products through multi-disciplinary collaborations.

7.5.1 Knowledge Asset KM

As mentioned in an earlier section, the CIs were involved in processes of engaging with the knowledge holders, gaining and building trust, and identifying the knowledge holders and the ICH to be acquired for safeguarding.

Binney's elements of knowledge asset management focus on 'the processes associated with the management of knowledge assets' (Binney, 2001, p. 36). In the next section I focus on assessing the management of the CIs' knowledge assets derived from the CIs' business process of safeguarding the ICH.

First, I identify the organizational knowledge assets of the CIs. The data in Chapter 6 elucidate the various processes involved in safeguarding indigenous knowledge, as expressed in the narratives of the CIs' staff, for example:

1) the process of getting the official approval and consent from the RO/DO to enter the community;
2) the process of getting consent from the community leaders;
3) the process of acquiring and sustaining the trust of the indigenous community and the knowledge holders;
4) the process of finding out the cultural protocols of the indigenous community; and,
5) the process of documentation, through the use of audio and videotaping, pictorial and written documentation, which are the CIs' knowledge products.

I found that knowledge repositories for codified process knowledge amongst the CIs are less common in comparison to the knowledge repositories created and managed for the acquired ICH, as emphasized by Mandy's comment in Section 6.4.3. The CIs in this study focussed more on creating and managing repositories for the acquired indigenous knowledge and ICH rather than on creating and managing repositories of their own business process knowledge. This is a gap that needs to be addressed, as the CIs in this study have not recognized the importance of their process knowledge as an organizational asset.

In the following sections, I use Binney's elements of asset management to assess the KM culture of the CIs. This assessment provides the outline for how KM can further assist the CIs, based on their need to enhance knowledge sharing internally and across organizations, and to develop a collaborative KM culture.

7.5.1.1 Assessing the inventory of CIs' know-how

The enablers of the indigenous knowledge acquisition processes depend on the ability of the CIs to acquire knowledge on the cultural protocols of the indigenous people. In Section 6.2.2, the *know-how* of cultural protocols ranged from the socializing etiquette while in the company of the indigenous people to the *know-how* of cultural sensitivities and knowledge protocol compliance in the process of acquiring the trust of the knowledge holders that will enable them to share their indigenous knowledge with the CIs.

Based on secondary data (the CIs' websites, organizational ISO quality system documentation, documentation inventories), I found that knowledge repositories for documented organizational knowledge are not as common as the databases for the acquired indigenous knowledge (emphasized by Mandy in Section 6.4.3). This gap is significant given the CIs' resource limitations. There are instances of working in silos within the organization, such as in River which mainly documents oral traditions of the indigenous communities, and where research staff are appointed based on their ethnicity specifically to document the oral history of

their own indigenous group. As they said, it is *easier* for an *insider* of the indigenous group to acquire the trust of the knowledge holder through family ties (Section 6.2.3.1), but they must be able to build positive rapport with the community, as emphasized by Hekel in Section 6.2.2.

7.5.1.2 *Assessing the inventory of the CIs' know-who*

In Chapter 6, the data highlighted the important role of individuals or organizations as intermediaries to help link the CIs with the knowledge holders among the indigenous peoples. This discovery directed me to look for similar phenomena in the knowledge sharing literature, but most of the literature available on the roles of intermediaries is enterprise based (Cranefield & Yoong, 2007; Hawkins & Rezazade, 2012; Levina & Vaast, 2014; Long et al., 2013).

The challenges from the external environment faced by the staff from the heritage institutions in establishing links with the indigenous people were evident from the data on the pre-acquisition stage of knowledge acquisition, discussed in Chapter 6. The CI staff had to deal with the intermediaries to the indigenous people. These intermediaries were officials of other organizations that helped to link the CIs with the indigenous people, or individuals from within the indigenous communities.

The official intermediaries, or boundary spanners (Section 7.4), are thus the authorized organizations that can link the heritage institutions to the indigenous people. Such public institutions are the Residence Office (RO) and District Office (DO) in each of the geographical administrative districts. These organizations play the role of knowledge brokers, as according to Haas (2015) they do not belong to either group, in this case the CI or the indigenous people. These offices officially appoint the community leaders. The RO/DO has a list of the village headmen serving in the respective administrative geographical areas. It is important for the CIs to know the headmen. The RO/DO also informs the CIs of the organizational protocols and procedures required before the CIs can have access to the indigenous people, as explained in Section 6.2.1.

Moreover there are the non-governmental organizations (NGOs) such as the indigenous groups' associations as mentioned in Section 4.3.2, which have links to the knowledge holders in the respective indigenous groups. In assisting the CIs, similar to the RO/DOs, these NGOs provide knowledge to the CIs of the cultural protocols necessary if the CIs are to work with the indigenous people. These cultural protocols include matters pertaining to cultural sensitivities of which the CIs need to be aware and have to observe, as different indigenous groups have different cultural sensitivities. Such dealings with the NGOs help the CIs to create their own organizational knowledge on the process or steps of establishing links to the knowledge holders.

Based on the literature (Conklin, Lusk, Harris, & Stolee, 2013; Cranefield & Yoong, 2007; Meyer, 2010; Morrison, 2008; Paul Williams, 2002) members of the NGOs who act as a bridge linking the staff of the CIs to the indigenous knowledge they seek to acquire are also referred to as *boundary spanners*. They are important links in the CIs' process of acquiring indigenous knowledge. Meyer (2010) described them as individuals or organizations that assist in knowledge sharing, creation and use. According to Cranefield and Yoong (2007) boundary spanners are the 'knowledge interface' for the organization, and they create and maintain links between the creators and users of knowledge. They not only transfer the knowledge, but also help to transform it. Transforming knowledge requires the knowledge brokers to translate and interpret the knowledge to assist in the use of knowledge, thus creating a new kind of knowledge, which Meyer (2010) termed as *brokered knowledge*.

Cranefield and Yoong (2007) found the most significant roles of the boundary spanners in their study were as interpreters and translators, important elements in the successful transfer of knowledge. In my study, interpreters (with their deep understanding of indigenous knowledge) and translators (to translate the different indigenous languages) were always from the indigenous group from which the CI acquired the ICH. These translators and interpreters are greatly needed by the CIs in the process of safeguarding indigenous knowledge. It was they who made it possible to communicate their interpretation and translation of

their communities' CHI. The interpreters and the translators are also boundary spanners who bridge the staff of the CIs to the indigenous knowledge they acquired.

My data in Section 6.2.3 also showed one of the ways for the CIs to create and maintain the links with the indigenous people was to recruit staff from the indigenous groups who had a network, or were able to create a network, of links with the indigenous people by being an *insider* of the indigenous group. However, the data also reported the need for the staff who have to work with the indigenous people to acquire interpersonal skills in line with cultural competency and skills as a boundary spanner (Williams, 2002). Williams (2002) also mentioned the need for skills in leading, networking, and interpersonal relations, along with communication skills, political skills, entrepreneurial skills, being innovative, and being able to build and maintain trust, with both the source communities and the staff of the CIs. In my study, in addition to the aforementioned skills required by the CIs' staff, there is the ability to be culturally competent, according to the beliefs and culture of the different indigenous people the CI staff work with. Such staff have a two-pronged advantage, that of (1) knowing the *language of the people*, which allows (2) a deeper understanding of the *language of the indigenous knowledge* being acquired. The *language of the indigenous knowledge* is another knowledge challenge faced by the CIs, as explained below. This is another aspect of the CIs' organizational knowledge assets that requires documentation of the different set of skills and knowledge of being culturally competent.

Once the heritage institutions are able to create links to the indigenous groups, there is another type of challenge in knowledge sharing. This is the set of cultural protocols that have to be observed before the indigenous groups are willing to share their knowledge. This challenge is more a requirement of the knowledge rather than of the indigenous people themselves, as discussed in Chapter 5.2. An example shared by one of the knowledge holders was the need to start each knowledge sharing session with the *miring* ritual. This ritual is a prayer for spiritual protection from any untoward incident during knowledge sharing.

The CIs' process of safeguarding is affected by barriers to knowledge sharing from the indigenous communities. Their knowledge sharing is based on the nature and tiers of knowledge, and the different circles of knowledge holders. Acquiring and documenting ICH is more challenging for the highest tier (Tier 3) of indigenous knowledge as it concerns sacred and secret indigenous knowledge (refer to Sections 5.2.3, 5.3.4 and 5.4.3). Data from the indigenous participants suggest the difficulties with acquiring the knowledge which transcends the living world, i.e. to include the spiritual world. The indigenous people revere the spiritual aspects of their knowledge as they believe the knowledge they have is *ordained* for them by a higher being, and they are the *channels* to externalize the knowledge for public consumption, either through the manifestation of the knowledge in the rituals, or in carrying out the purpose of the knowledge, for example, in traditional healings.

Each CI has internal actors involved in the processes of working with the indigenous communities. These are the CI's intellectual assets of *know-who*, i.e. the people who link the CI with the indigenous communities. The details of these individuals have to be compiled as a directory of experts, inventorying and mapping their expertise on indigenous groups and indigenous knowledge. Internal staff, as evident in Section 6.2, are the links and knowledge brokers between the CI and the indigenous knowledge holders.

Each CI also has external actors: boundary spanners and knowledge brokers upon whom it depends as links to the source communities. Thus there is also a need to manage a directory of external knowledge brokers and boundary spanners for the different groups of indigenous people, as well as the geographical locations of the indigenous people. This directory should be one of the knowledge assets of the CI, providing knowledge on the network of actors (the *know-who*) who are the external links between the CI and the knowledge holders. This network of actors is an important resource that will assist the CI in linking to the knowledge holders faster without the need to start looking for knowledge brokers from scratch. A CI's *know-who* knowledge assets also need to extend to actors outside

of the CI's realm, either from peer CIs or other non-CI organizations, such as the indigenous associations mentioned earlier.

In a nutshell, the CIs' *know-who* intellectual assets that need to be managed range from the actors in the organization, to the internal and external champions, the owners of the processes, the custodians and boundary spanners. For some CIs that are active in documenting the internal or external actors (refer to Section 6.4 e.g. Highlands, Lake, Hills, and River), a *know-who* directory would be a positive step in capturing their corporate intellectual assets.

In the next section, my discussion focuses on the second element of Binney's KM spectrum which is applicable to CIs: process-based KM.

7.5.2   Process-based KM

As an introduction to the process-based element, Binney (2001) stated that it covers the codification of process knowledge assets and improvement of work practices through internal lessons learned sessions, best practice selection, codification and external benchmarking. This process-based knowledge can then be shared by making it available and accessible to others, both to those in the organization and outside the organization (Binney, 2001).

Literature on KM (Haldin-Herrgard, 2000; Hansen, Nohria, & Tierney, 1999; Irick, 2007; B. Johnson, Lorenz, & Lundvall, 2002) sees the documentation of tacit knowledge as one of the ways to manage and bring the tacit into the explicit dimension, although not in totality. Leveraging my experience as an insider of the Sarawak state civil service (SCS), I am aware of the varying degrees of knowledge management culture in these CIs. Secondary publicly available data indicated the extent of knowledge management practised in the CIs. Firstly, evidence of documentation of organizational knowledge is available from the CIs' websites, annual reports and newsletters of all the CIs selected for this study. Hansen, Nohria, and Tierney (1999) termed this as a process of 'people-to-documents' (1999, p. 108) involving *codification*, where the knowledge is acquired from a

person and is documented, and can then be used independently from the originator, and for different purposes.

Secondly, the processes and procedures of the CIs in the acquisition of indigenous knowledge to an extent are already being documented. All CIs, being agencies of the Sarawak Civil Service, are required to practise ISO 9000 as their quality system, and as such, the processes in the organizations are being documented to make their procedural knowledge explicit. From my experience of working in a CI, these documents are subject to regular audits, but in most cases these documents are static as only an authorized person can update and improve the documents if s/he is aware of any knowledge creation in the improvement of the processes.

The business-process documentation to an extent brings the CIs' organizational work processes knowledge into the explicit dimension. The documents provide evidence of the CIs' *know-what* of their business processes, and inventory the CIs' *know-how* intellectual assets. However, documentation alone is not sufficient in managing organizational knowledge, where organization knowledge will remain in the tacit dimension. Based on my experience working in a CI, and evidence in secondary sources from the CIs, as well as stated by Mandy in my data (Section 6.4.3) there is a gap in documentation as well as a gap in knowledge within the documentation of safeguarding practices.

The different CIs in this study have different focal areas in their acquisition of indigenous knowledge. There are opportunities for sharing knowledge within and between a CI's units. As an example, Section 6.2 highlighted the process of establishing connections to the indigenous knowledge holders, helping the CIs to acquire the trust of the people, and one of the ways of acquiring and building this trust is by being sensitive to their cultural protocols and sensitivities. The role of trust in knowledge sharing is well-documented in knowledge management literature on enterprise settings (Bulan, 2006; Collins, 2001; Holste & Fields, 2010; Mooradian et al., 2006; Politis, 2003; Renzl, 2008; Sillitoe, 2010). However, the trust in my study is between an individual from an organization (the CI) and

members of the indigenous community. This is one of the lessons learnt by the CIs and shared by the participants in Section 6.2.4: that it takes time to build the trust of the indigenous people, and that affects the process of acquiring indigenous knowledge. Such knowledge evolves according to the indigenous community and the ICH to be safeguarded.

7.5.3 Developmental KM

This element, according to Binney (2001), aims at human capacity development, which creates a learning organization. This is accomplished through informal learning through the exchange of ideas and learning from the experiences of another person within the organization by the sharing of tacit knowledge, i.e. 'experiential assignments or membership in a community of interest' (Binney, 2001, p. 36). Human development can also be achieved through formal staff training and development of structured instructional training (Eraut & Hirsh, 2014). The data of my study indicated the minimal formal training on the protocols of the indigenous people and their knowledge. Training on indigenous protocols and knowledge was provided on an informal basis, mostly on the job and during fieldwork.

Knowledge sharing activities are required in the CIs, as tacit informal personal knowledge and skills are acquired through experience and intuition, and enriched through their cognitive skills. This knowledge can be made explicit, but much of it will remain tacit, as we 'know more than we can tell' (Polanyi, 1967). The CIs have to create a culture of knowledge sharing (Al-Alawi, Al-Marzooqi, & Mohammed., 2007; Peng & Sutanto, 2012) by providing the incentives and motivation, rewards and recognition programmes to encourage staff to share their knowledge and best practices. Recognition of staff's knowledge sharing is in line with one of Williams' (2015) attributes of a knowledge management strategy, where actors' importance in the organization is emphasized to ensure an effective knowledge management system. This also resonates with the motivation factor for knowledge sharing identified by Ipe (2003).

Sections 6.2.2 and 6.3 highlighted the need to understand, manage and comply with the cultural sensitivities of various indigenous groups in Sarawak, in order to obtain the trust of the source communities. These sensitivities form part of the deep, advanced and complex indigenous knowledge. This need entails regular knowledge sharing within and between the CIs on deep and advanced knowledge about the complexity of indigenous knowledge in Sarawak.

7.6   Summary

Safeguarding ICH in CIs requires the involvement of the source communities, with intra and inter-CI collaborations. I refined my earlier conceptual framework to add the complexities of safeguarding ICH in the CIs of Sarawak. I then proposed the use of Binney's KM spectrum for the CIs.

In using three of the elements in Binney's KM spectrum, I assessed the availability of knowledge management practices in the CHIs. Identifying the gaps provided me with the opportunity to make recommendations for the practical implementation of KM strategies by the CIs. I focussed on the CIs' knowledge asset management, and on identifying the types of the CIs' knowledge assets. Identification of these assets made it possible for me to identify the process-based knowledge management requirements of the CIs that need to be addressed. The identification of these requirements highlighted to me the priority areas for developing human capacity in carrying out operational processes effectively.

The discussion around knowledge sharing in my study's context highlights the sharing of knowledge based on the multiple dimensions of the CIs' organizational knowledge derived from the practices of safeguarding, compounded by the complexity of indigenous knowledge. Inter-CI knowledge sharing is also required for collaborative knowledge sharing practices.

Identifying knowledge boundaries and the important roles of addressing the knowledge intermediaries helped raise the awareness of such boundaries that could hamper knowledge sharing.

In the following final chapter of my thesis, I explain the contributions of my study to practice and to theory, I make recommendations for future research, and I address the limitations of my study.

Chapter 8   Conclusion

In this chapter I bring my thesis to a conclusion by elucidating the contributions my research has made to practice and to theory, and by recommending research that can be carried out to extend my findings. I also address the limitations of my study.

The literature stresses the importance of documenting and recording indigenous knowledge (Christen, 2015; Ocholla, 2007; Zaman, 2013) for purposes of posterity and the sustainability of the knowledge. The roles of cultural institutions (CIs) have now expanded to safeguard intangible cultural heritage (ICH) in which much of the accompanying indigenous knowledge is still tacit in the minds of the holders, and embedded in their culture. The difficulty of sharing tacit knowledge was recognized by Ipe (2003) in her model of factors affecting knowledge sharing.

With safeguarding processes, which include documentation and recording, ICH becomes knowledge assets of the CIs. The question of whether these assets are managed using the formal and established, mostly Western-centric knowledge organization systems, or by incorporating indigenous protocols in the management, provides an avenue for further research. Documentation also raises the question of the contextuality of the ICH, as provided in the knowledge ecosystem of the ICH, which demonstrated that knowledge residing or accompanying ICH is compartmentalized, fragmented and can be embedded in several knowledge holders.

One of my study's main findings is the identification of the knowledge sharing ways of the selected indigenous people of Sarawak, including their requirement for the CIs to respect a range of cultural protocols in order to be accepted by the indigenous people as trustworthy recipients of their ICH. The indigenous people's narratives clearly provided the key prerequisite that the CIs in Sarawak must meet, i.e. the participation of the indigenous source communities, incorporating

the indigenous people's protocols in the safeguarding of the ICH. While the participation of the source communities meets the requirements of the UNESCO Convention on Safeguarding Intangible Cultural Heritage (CSICH), this aspect of my findings also relates closely to the identification of culture by Ipe (2003) as the key factor related to the sharing of knowledge between individuals. My study explored knowledge sharing within the community of indigenous knowledge holders and staff from the CIs who were involved in safeguarding indigenous knowledge.

It is interesting that internationally, the growing importance given to indigenous knowledge has now extended to the recognition of the need to protect the intellectual property of indigenous people and their knowledge (Dutfield, 2000; Mathiesen, 2012; von Lewinski, 2008; WIPO, 2004, 2012b), including Sarawak (Fong, 1996). The World Intellectual Property Office (WIPO) even published a documentation toolkit, as a guide for documenting ICH and 'to make the right decisions regarding how to safeguard their [i.e., the indigenous people's] interests and keep control of their IP rights, interests and options' (WIPO, 2012b, p. 7). As such, this is an opportunity for Sarawak's CIs to help the indigenous people in aspects of safeguarding and protecting their intellectual property rights.

In the course of my study, another of the main findings was that there is a tiered model for indigenous knowledge. The location of the ICH on this Tier influences the ways this knowledge is shared by the knowledge holders. An understanding of the nature of indigenous knowledge is important for the CIs, and the Tiers model can be used to guide the CIs in their safeguarding processes.

Another finding of this study that adds to the literature on knowledge sharing enablers is the element of cultural protocols required in the sharing of indigenous knowledge. I discovered and identified several fundamental cultural protocols essential to the indigenous knowledge holders for them to share their knowledge with the CIs. This is organizational knowledge for the CIs. The knowledge on the ability to and the process of adhering to these protocols, while they are necessary

to acquire the trust of the indigenous people, still remains tacit with the staff who experienced collaborating with the source community.

Attaining and sustaining the trust of the indigenous people was highlighted in this study, adding to and confirming the findings of other studies with indigenous people (Bulan, 2006; Joffrion & Fernandez, 2015; Maina, 2013; Mathiesen, 2012; Sillitoe, 2010; Stevens, 2008). Moreover, it builds on Ipe's (2003) model of knowledge sharing by identifying the importance of trust as a motivational factor for sharing knowledge in the context of the community of indigenous people and CIs. In this study, the trust needed to share knowledge was both a motivational factor and a cultural factor. The knowledge of how to build and sustain trust, therefore, has to be embedded in the CIs' safeguarding processes. Joffrion and Fernandez (2015) and Onciul (2015), however, discovered the challenges of formalizing collaborative agreements between heritage institutions and the source communities of indigenous knowledge due to the uniqueness of the various issues that arise.

In the context of this study, the nature of the ICH informed the CIs' safeguarding processes. This reflects another type of knowledge assets of the CIs, i.e. knowledge generated from the CIs' safeguarding processes. This study found that while the CIs recognized and acknowledged the acquired ICH as knowledge assets, the CIs need to also accord the same recognition to their own organizational knowledge derived from the safeguarding processes. This knowledge asset is a measure of the CI's organizational expertise that can be shared with the other CIs.

The use of Binney's (2001) knowledge management spectrum allowed me to assess the KM activities of the CIs, and with that assessment, using three of Binney's elements, I highlight my recommendations in the following section.

The narratives acquired for this study were able to bring to the fore the elements required to understand the nature of indigenous knowledge, and the practices of knowledge sharing of the indigenous communities. By using narratives, I deliberately sought the voice of the indigenous people about their knowledge,

their lives and experiences of knowledge sharing, and about how they view their knowledge system. This understanding helps the CIs in safeguarding indigenous ICH while respecting the requirements of the indigenous knowledge system.

In the next section, I highlight recommendations based on the findings from my analysis of the narratives of the indigenous people and the CIs, and the assessment using Binney's elements.

8.1 Collaborations and partnerships

Collaborations between the CIs are recommended in assessing their combined assets, and future safeguarding projects should focus either on expansion of existing ICH or on new areas (indigenous groups, geographical locations, subject matter, etc.) so as to avoid overlap of efforts.

Collaborations will also be needed in the development of the CIs' human resource capacity. The narratives from the CIs' participants highlighted the tacit nature of their organizational knowledge. As a safeguarding measure for the CIs' organizational knowledge, training can be used and undertaken on a shared basis in the areas of indigenous protocol matters, methods of effective documentation and recording, the creation of databases, knowledge organization, and combining safeguarding efforts, amongst others. Each of the CIs has their own knowledge boundaries and areas of expertise that can be shared through intra- and inter-CI collaborative efforts.

The CIs can enter into consortium-like collaborative knowledge management projects, where their disparate databases can be combined to form a single indigenous knowledge discovery system for the State (for the ICH), and a KM system (not necessarily IT-based) that can be used for knowledge sharing amongst the CIs for best practices and lessons learnt, with regard to the safeguarding of ICH.

The CIs' collaborations with the indigenous people are essential, not just before and during acquisition stages, as informed by the narratives, but more so in the management of the ICH, in line with the post-colonial movement of heritage management, and especially in meeting the requirements of UNESCO's CSICH. The data in my study were not rich in details of CI collaborations with the indigenous people at the post-acquisition stage, i.e. the management (storage and dissemination) and care of the ICH after acquisition. Continuous consultations and collaborations with the knowledge holders and the indigenous communities are required as evident in the works of Christen (2015), Joffrion and Fernandez (2015), Maina (2013), Mathiesen (2012) and Onciul (2015).

The data showed that the indigenous people welcomed collaborations with researchers and heritage institutions that could help them safeguard their heritage. They also feared the total loss of their indigenous knowledge. Within their own communities, they had initiated action plans to re-instate cultural rites and traditions, initiatives through which they could share and hand over their knowledge to the younger generation. This was an interesting insight, as it was generally believed that indigenous people were sometimes reluctant to share their knowledge.

The narratives, especially from the CI participants, implied the need for collaborative knowledge management activities amongst the CIs and especially between the CIs and the indigenous people. In highlighting this, I propose the use of the collaborative practice framework of Li, Tarafdar, and Subba Rao (2012) which I have simplified in the table below.

Table 8   *Collaborative KM for CIs*

Collaborative knowledge management framework

Collaborative KM practices that can be adapted for the CIs in this study:
Collaborative safeguarding of indigenous knowledge
Collaborative network of knowledge experts about safeguarding indigenous knowledge
Collaborative knowledge organization and storage
Collaborative indigenous knowledge accessibility, respecting the canons of the indigenous people
Collaborative sharing of organizational knowledge on safeguarding ICH

Collaborative practices amongst the CIs create their own inter-sectorial and inter-organizational communities of practice/engagement, discussion forums, and networking, and create multi-disciplinary teams in and between the organizations.

Collaborative management practices in the context of this study comprise the collaboration and combined activities across the CI sector to acquire, document, curate, and share the acquired indigenous knowledge. The CIs need to collaborate and form partnerships with each other to help address the issues raised in Chapter 6. They can collectively make decisions on project priorities, and share the costs to maximize limited funding and resources. The areas of safeguarding indigenous knowledge have to take into account the various different ethnic groups in Sarawak's population, the geographical distances, the dying cultures and languages, and the depleting numbers of knowledge holders. However, collaborations have to be strategically coordinated to avoid duplication and inefficiency (D. Bedford & Harrison, 2015).

8.2   Selecting KM strategies based on the spectrum

The CIs, as knowledge organizations that safeguard ICH, require KM strategies for the sustainability of their organizational relevance. KM strategies are necessary especially when organizations are competing for scarce organizational resources (Bedford & Harrison, 2015; Bedford, 2012). These KM strategies can help the CIs towards achieving operational excellence, as well as creating expert leadership on indigenous knowledge.

Based on the KM spectrum discussed in Section 7.5, the CIs involved in safeguarding ICH could work collaboratively among themselves and with the indigenous people to develop an overarching KM strategy for the "organization as a whole". This KM strategy could then be used by the individual CIs to develop their own specific KM approach in safeguarding ICH with the involvement of the indigenous people which would then feed back into the knowledge of the "organization as a whole".

The table below illustrates the application of the KM spectrum to the Tiers of Knowledge which could be used as the basis for the CIs' overarching KM strategy. The KM spectrum can be applicable to each level of the Tiers of Knowledge. To illustrate this further, as an example, in applying Binney's asset management KM, a CI could create inventories of know-what, know-who and know-how related to the safeguarding of the ICH, based on each of the Tiers of Knowledge, as illustrated in the table below.

In another KM strategy, each of the CIs could expand the knowledge organization taxonomy they currently use, or create a new one, by incorporating indigenous taxonomy into it. Each of the CIs could contribute their documented organizational knowledge of safeguarding the ICH according to the different levels of the tiers. These examples could be channelled back into the collaborative overarching KM strategy.

This study also revealed the need for all of the CIs to create a master inventory of their safeguarding processes. To illustrate further, each of the CIs would have different groupings of actors involved in these processes, e.g. each level of ICH related to the tiers might have different knowledge owner(s), sources/creators, knowledge custodians, gatekeepers, boundary spanners and knowledge brokers, especially those from the indigenous communities. These inventories are the CI's knowledge assets in regard to safeguarding ICH.

Table 9   Aligning Binney's Spectrum with Tiers of Knowledge

Binney's KM Spectrum	Base Knowledge	Ceremonial and Ritual Knowledge	Sacred Knowledge
	KM Strategy for the cultural institutions		
Asset management KM	• Create inventories of know-what and know-who, e.g. the network of indigenous knowledge holders; tangible cultural paraphernalia; the common music and chants • Create inventories of different protocols (official and indigenous) for approaching the source communities.	• Create inventories of master indigenous knowledge holders who can share and transfer know-how. • Document indigenous apprenticeship know-how • Create inventories of indigenous protocols for apprenticeships	• Create inventories of sacred knowledge • With the consent of the indigenous knowledge holders, prioritize sacred knowledge for documentation • Create inventories of master knowledge holders of sacred knowledge • Create inventories of sacred protocols for knowledge sharing • Identify and create a checklist of sacred ICH which are best managed and safeguarded by the source communities
	• Create collaborative knowledge repositories of ICH, and the associated cultural protocols	• Establish indigenous taxonomy on ceremonial and ritual ICH • Create a repository on ceremonial and	* Obtain consent and involvement of the indigenous communities (highly necessary for sacred ICH)

	• Expand existing knowledge organization taxonomy incorporating indigenous taxonomy • Create a collaborative knowledge repository of the CIs' organizational knowledge in relation to safeguarding ICH • Examine and identify the intellectual property aspect of ICH • Identify global CIs which have Sarawak's ICH in their collections, and sharing of resource metadata	ritual ICH • Create a repository of organizational knowledge relating to safeguarding ceremonial and ritual ICH	• Establish indigenous taxonomy on sacred ICH • Create a repository on sacred ICH • Create a repository of organizational knowledge relating to safeguarding sacred ICH
Process-based KM	• Ensure continuous process improvement of the CI's safeguarding efforts, working with the source communities/indigenous knowledge holders • Benchmark with each CI in Sarawak, or with other CIs overseas which also safeguard ICH • Create inventories/ databases of lessons learned in safeguarding efforts • Create inventories of best practices of safeguarding • Create and practise quality management system of organizational processes linked to safeguarding ICH • Document the methodologies of safeguarding ICH, in consultation with the source communities	• Continuous process improvement of the CI's safeguarding of ceremonial and ritual ICH, in consultation with the source communities/ indigenous knowledge holders • Benchmark with each CI in Sarawak on safeguarding ceremonial/ritual ICH • Create inventories/ databases of lessons learned in safeguarding ceremonial/ritual ICH • Create inventories of best practices of safeguarding ceremonial/ritual ICH • Document the methodologies of safeguarding ceremonial/ritual ICH, in consultation with the source communities	• Work with the sacred knowledge holders to identify permissible sacred ICH for safeguarding • Benchmark with each CI in Sarawak on safeguarding sacred ICH • Create inventories/ databases of lessons learned in safeguarding sacred ICH • Create inventories of best practices of safeguarding sacred ICH • Document the methodologies of safeguarding sacred ICH, in consultation with owners or holders of sacred knowledge

Develop-mental KM	• Create programmes, in consultation with the indigenous knowledge holders, towards enhancing skills of CI staff in safeguarding ICH • Create competency training in safeguarding ICH, with indigenous source community included among the trainers. • Ensure continuous learning and knowledge sharing programmes amongst staff, intra and inter CIs, partnering with indigenous source communities, focusing on best efforts of safeguarding ICH	• Create programmes, in consultation with the indigenous knowledge holders, towards enhancing skills of CI staff in safeguarding ceremonial and ritual ICH • Create competency training in safeguarding ICH, with indigenous source community included among the trainers • Ensure continuous learning and knowledge sharing programmes amongst staff, intra and inter CIs, partnering with indigenous source communities, focusing on best efforts of safeguarding ICH	• Create programmes with holders of sacred knowledge, towards enhancing skills of CI staff in safeguarding of sacred ICH • Create competency training of staff in safeguarding sacred ICH embedding indigenous protocols, with indigenous source community included among the trainers • Ensure continuous learning and knowledge sharing programmes amongst staff, intra and inter CIs, partnering with indigenous source communities, focusing on best efforts of safeguarding ICH

This study also revealed the need for the CIs to inventory the processes of safeguarding ICH. The CIs may need to determine and document key end-to-end processes, which can help better manage, prioritize and coordinate safeguarding efforts. Documenting the processes helps the CIs to identify 'road blocks' or challenges, as well as areas of safeguarding which need improvements. Different ICH on different levels of the Tiers use different processes of safeguarding. The table above illustrates the possible KM strategies for addressing the process-based KM spectrum. The CIs' organizational processes of safeguarding require the indigenous people's input, especially on the cultural protocols of safeguarding

sacred ICH. Benchmarking between the CIs allows for the sharing of best practices of safeguarding, as each CI has a different ICH focus, and different processes of safeguarding. ICH on each level of the Tiers would require different methods of safeguarding.

This study also indicated that the CIs in Sarawak need a developmental KM strategy. This study revealed that there is a gap in the CIs' understanding of the need to develop and take on a more collaborative (community-facing) approach to generating knowledge in certain areas. Collaborations between the CIs, as well as continuous collaborations with the indigenous source communities, are important. This is especially so after acquisition of the ICH. The CIs will require the continuous involvement of the source communities, such as in the management and dissemination of the ICH. I have also argued that the CIs need more knowledge about internal-facing know-how on knowledge acquisition processes, most importantly where indigenous protocols are required. From the table above, continuous learning is essential on the part of the CIs, e.g. from benchmarking, as mentioned earlier, as well as learning from the indigenous people with regard to safeguarding processes incorporating indigenous protocols. These knowledge assets can be used in the curriculum development of the CIs' training programmes for the staff, addressing the developmental KM spectrum.

Another aspect for consideration is for the CIs to adopt a developmental KM strategy, i.e. the opportunity for the CIs to collaborate and create a community of practice of experts on the different areas/types of indigenous knowledge in their respective CIs. This initiative should include members of the indigenous communities. The CIs can leverage these experts for content development towards the creation of curricula for the CIs' human capacity developmental KM strategy in areas relating to safeguarding of ICH.

Taking this strategy to another level would involve combining similar knowledge spectrums from the different CIs, with a focus on indigenous knowledge acquisition and documentation, management and access. The knowledge

spectrum is the same in each of the CIs, but it is each CI's knowledge related to the same element within the spectrum that can be collaboratively linked. This collaborative effort can also contribute towards the creation of a directory of indigenous knowledge experts, and the actors in the process of acquiring indigenous knowledge. The combination of knowledge from across the different CIs, with different functions and disciplines, will provide an environment for new knowledge creation, for and between the CIs. This aspect of inter-CI collaboration and partnership, as mentioned earlier in Section 8.1 (illustrated in Table 8), addresses the possible modification of another part of Binney's KM spectrum, which is 'innovation/creation KM' (Binney, 2001, p.37), in a way that allows this element of the spectrum to be adapted and used in the not-for-profit and government sectors. Implementing the innovation/creation KM in the CIs and collaborating between CIs will provide opportunities for the CIs to create new knowledge towards new services and organizational capacities.

Collaboratively, the CIs could also create and share an inventory system that can be used across the CIs to manage the ICH and the CIs' organizational knowledge. This collaboration could create another opportunity for developing a new knowledge classification system for Sarawak, or expanding existing ones with the combined expert knowledge of the different CIs. Thus there is a need for the creation of a localized subject headings/taxonomy/metadata list focusing on Sarawak's indigenous groups and cultures.

8.3 Contribution to theory and research

The finding on the Tiers of Knowledge is my study's contribution to theory, with regard to understanding the nature of indigenous knowledge, which can guide heritage institutions in safeguarding practices. The description of Tiers of Knowledge in Section 5.4 gives an overview of the nature and type of knowledge in each of these tiers. The knowledge sharing ways of the indigenous people depend on the type and the location of the knowledge in the tiers, which affect the CIs' safeguarding processes.

An addition to knowledge sharing theory is the cultural protocol requirements of knowledge sharing amongst the indigenous people of Sarawak. This study expands the understanding of indigenous knowledge by describing how the types of knowledge influence the ways of knowledge sharing. Another contribution to knowledge sharing theory is expanding the use of Ipe's (2003) knowledge sharing framework to individuals in a non-commercial organization: the community of knowledge holders within the indigenous people and the staff of the CIs, which are non-profit public organizations.

8.4 Contribution to indigenous research

My study's focus on understanding the nature of knowledge of the indigenous people of Sarawak, and how they share their knowledge, adds to indigenous research literature. While using narrative inquiry, I incorporated indigenous ways of data collection, using an indigenous paradigm of interviewing techniques, especially with regard to entry into and icebreaking with the members of the indigenous communities. This research would not have been possible if I had not respected and adopted the indigenous protocols in approaching the indigenous communities and while conducting my fieldwork. This research contributes to indigenous research as

it was undertaken by an indigenous researcher, collaborating with indigenous participants, and incorporating indigenous research protocols.

8.5   Contribution to and implications for practice

The narratives from the indigenous people helped inform the practices of the CIs in their intentions of acquiring, and the subsequent safeguarding of, the indigenous ICH. Commencing from the pre-acquisition phase, how the CIs should conduct their expression of interest to the indigenous community, as the initial icebreaking, is an important consideration for gaining the trust of the indigenous people. The indigenous narratives also provide the CIs with knowledge on their cultural protocols and requirements in the sharing of their knowledge. This study contributes further to the CIs' understanding of cultural protocols for the interaction and engagement with the indigenous community.

The study also contributes towards the understanding of the complexity of indigenous knowledge, i.e. the compartmentalized and multidimensional characteristics of indigenous knowledge as elaborated in Sections 5.2.4 and 6.3. This understanding has a bearing on the management of the ICH, and especially in developing IT-based KM systems for the CIs, so as not to decontextualize the ICH.

This study also contributes to the practice of KM in CIs, specifically on assessing the potential for using KM in the acquisition and management of ICH. One of the KM activities I suggest for the CIs in Sarawak is the creation of an integrated library-like system that can be used across the CIs for the management, retrieval and safeguarding of the ICH, by incorporating the indigenous protocols. Another opportunity for KM activity would be the management of tacit knowledge that is context dependent on the knowledge holder. A KM system (including IT) should be incorporated into the CIs for the purpose of managing the CIs' organizational knowledge created from safeguarding procedures and processes.

8.6   Future research

A number of interesting research projects can be carried out as offshoots of this study. More in-depth research could focus on theoretical aspects of the complexity of indigenous knowledge and the extent of decontextualization due to documentation and recording.

For institution-based research, one of the possibilities is to study the impact of the displacement or relocation of indigenous communities on their ICH and how this might be documented by the CIs.

While this study focussed on the public sector's role in the documentation and recording of indigenous knowledge, a study could also be carried out on the roles of non-government or non-profit organizations in the sustainability of indigenous knowledge.

Another institutional research initiative could develop a collaborative framework for KM between CIs and indigenous peoples by incorporating different roles/responsibilities of both the CIs and the indigenous knowledge holders according to the Tiers of Knowledge. A project such as this would be directly relevant to resolving the research problem studied in my research, and to global trends in practice and research (for example to the cutting edge projects in UK and Australia). It also would be a very useful study given the resource constraints in CIs, and the many failures of codification-based KM. Moreover, it would support the emerging global trends towards a more indigenous-centric view of how indigenous knowledge should be managed in partnership with the indigenous people.

Finally, I see a need for a study to be carried out on the protection of Sarawak's indigenous ICH, and how existing international laws can assist and be used in Sarawak for the protection of our ICH, and in creating Sarawak's own intellectual property laws for her indigenous peoples.

8.7   Limitations

I have identified several limitations that may have had an impact on my study.

Firstly, the narrow range of people whom I selected for my study was a limitation. There are 27 indigenous ethnic groups in Sarawak, and I focussed only on three of them: the Iban, Orang Ulu and Melanau indigenous groups. As a result, my findings cannot be considered to be representative of all of the indigenous groups of Sarawak.

The dispersed geographical locations of these groups were also a limitation because they had a negative impact on the resources and time I could spend with the research participants. I therefore relied to a great degree on the knowledge brokers whom I engaged as my bridge to the indigenous participants by identifying indigenous knowledge holders in the indigenous communities who were accessible to me. Consequently, it is possible that I may have missed important knowledge holders because they were unknown to my knowledge brokers.

To some of the indigenous participants my interview sessions with them were the first time they had been asked to talk about their indigenous knowledge. Some indigenous groups were in danger of losing such knowledge and may have taken it for granted and this may have limited their capability to fully communicate their indigenous knowledge to me.

Language was another limitation, especially with my research participants from the three indigenous groups, as most speak their native languages, although most also knew our local Malay language. However, when they had to talk about their deeper knowledge they were unable to find suitable Malay words. So in the processes of translating from their native indigenous languages into Malay and then into English some of the subtleties of their explanations of the indigenous knowledge and accompanying ICH may have been lost.

Another limitation was the type of organizations selected for this study, which was restricted to CIs in the public sector. The findings are confined to these CIs and

might not represent those CIs in the private sector. While this limits the generalization of the findings, some findings could be relevant to the wider CI community.

Another limitation was the use of narrative inquiry as a methodology because the *truth* contained within the narratives depended on the participants who provided them. From my perspective as a researcher who is an insider of one of the indigenous groups as well as an insider from a CI, I am nonetheless confident that the participants' narratives represented true accounts of their lived experiences.

Although the CIs selected for this study have a common aim, i.e. to safeguard indigenous knowledge, they nevertheless have different focus areas for their work, e.g. indigenous medicines, oral histories, or tangible material culture. Thus another limitation is that it is not possible to generalize my findings to specific types of CIs due their different focus areas.

8.8 The final point

This study has humbled me. Being educated in the Western or Euro-centric paradigm, doing this research brought me back to my roots, and the depth and vastness of my own indigenous knowledge helped me realize that no amount of documentation can 'contain' the entirety of the still tacit indigenous knowledge of the native people of Sarawak. The noble efforts of the CIs of Sarawak in wanting to safeguard the indigenous knowledge would not come to fruition without the desire and consent of the indigenous people themselves.

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Appendix 1   *Interview guides*

Preliminary Interview Guide (For the Indigenous Groups)

The areas that will be discussed with the participants:

General questions:
- The name of indigenous group, geographical area.
- Your role in the community
- The type(s)/categories of indigenous knowledge that you have.
- Have you been involved in sharing your indigenous knowledge, especially the knowledge that accompanies TCEs?
- Have you been approached by any heritage institutions, asking for your input /knowledge regarding any TCE or their TCE collection?

Knowledge sharing
- How did you acquire the knowledge?
- How was the knowledge shared/"given" to you?
- How do you share the knowledge to others?
  - In your community
  - To people outside your community
  - To the heritage organisations
- Describe the requirements for sharing the knowledge.
- Describe the rituals and processes of sharing the knowledge, especially when sharing the secret and sacred.

This point should give me an understanding of the range of activities and processes of knowledge sharing in the indigenous communities.

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Preliminary Interview Guide (For the GLAM sector)

The areas that will be discussed with the participants:

General work-related questions:
- The organisation they work for
- Describe their job, tasks and responsibilities
- Length of service in this job
- Frequencies of interaction with the indigenous people
- Describe the kinds or categories of indigenous knowledge that are being preserved in your organization
- Describe the indigenous knowledge preservation programs/activities they are involved in
- Describe the methods of "combining"/ "attaching" the secret/sacred indigenous knowledge to the traditional cultural expressions (TCEs), while respecting the 'confidential canons' of the indigenous people.
- Describe the methods used to observe the protocols of the knowledge that accompanies the TCEs.

Knowledge sharing
- What are the activities of knowledge sharing in your organization?
  - o On ways of acquiring indigenous knowledge from the people
  - o On preservation and conservation activities
  - o On the culture/protocol of approaching the indigenous people
- How are these activities being carried out? Give examples.
  - o with the indigenous people
  - o Within the organisation, with regards to the acquisition and preservation of indigenous knowledge
  - o With other heritage organisations
- How does the organisation incorporate knowledge sharing activities?
- Describe the knowledge sharing activities.
- Describe and give examples of the practices/requirements/protocols/rituals when the indigenous people share their traditional knowledge with the organization.

This point should give me an understanding of the range of activities and processes of knowledge sharing in the respective organisations, in areas of acquiring indigenous knowledge for preservation and conservation purposes.

Interview guide 2.

Involvement of the indigenous people

Q: In what ways does your organization interact with the indigenous people?

Q: How often do you interact with the indigenous people?

Q: What are the methods that your organization adopt/use to "combine"/ "attach" the secret/sacred indigenous knowledge to the traditional cultural expressions (TCEs)?

How do you do this while respecting the 'confidential canons' of the indigenous people.

Q: I am interested in the different kinds or categories of indigenous knowledge knowledge that are being preserved in your organization . Please could you give me some examples.

Q: Describe the methods used to observe the protocols of indigenous knowledge that accompanies the TCEs.

Do this differ according to different knowledge?

Q: Describe and give examples of the practices/requirements/protocols/rituals of the indigenous people when they share the traditional knowledge of their TCEs with the organization.

Knowledge management in the Organization

Knowledge sharing

Q:What are the activities of knowledge sharing about the processes of acquiring IK in your organization? (the practiceses)

- Within your organization
- With other organizations
- With the public at large
- With the indigenous people as the source communities

Q: How do you share knowledge on :

- ways of acquiring indigenous knowledge from the people
- the management of TCEs, including the requirements of the indigenous people
- the culture/protocol of approaching the indigenous people

Q: Do you document your processes? (Externalisation)

Is it useful to document or are there other ways to internally record the knowledge?

Q: What other influences and other informal networks do you have? (networks of people out of the sector/out of the country)

Q: How do you combine the knowledge on your practices and processes between:

- Intergroups/ sectors
- Inter agencies
-

Q. Do you work with other organizations to combine the knowledge?

How do the people in the organization learn how to manage indigenous knowledge? (Combination)

Q: Do you use any indigenous knowledge management practices within the organisation?

Q: For those indigenous people working in the organization, do you perform any special roles in the organization?

Q: Thinking back to the kinds of knowledge you talked about before, do you make any distinction in your organization in terms of your internal practices and processes

Q: How does your organization manage :

- Organizational knowledge (e.g knowledge on work processes, knowledge that is created by the organization in carrying out its functions and responsibilities etc)
- Knowledge assets of the organization (e.g books, artefacts, recordings, documents)
- The use of social media

Q: Are there any other countries/organizations/ other indigenous peoples elsewhere that you work with? (Socialization)

Q: What influences your approach to managing indigenous knowledge?

Appendix 2 Codes for research participants

Codes for Research Participants

Research Participants Indigenous groups	Initials	Codes	Description
Orang Ulu	ED	OU1	Women Leader
	PDA	OU2	Paramount Chief
	MI	OU3	Chieftain
	SG	OU4	Musician
	RB	OU5	Cultural Point Of Reference (POR)
	BA	OU6	Headman
Iban	JRN	IB1	Weaver
	RM	IB2	Knowledge expert
	NT	IB3	Oral tradition expert
			Community
	DJ	IB4	Cultural POR
	CAN	IB5	Cultural POR
	HIT	IB6	Cultural POR
	MB	IB7	Paramount Chief
	AR	IB8	
Melanau	AS	ME1	Community Leader
	UB	ME2	Headman
	NK	ME3	Chieftain
	KM	ME4	Healer
	RH	ME5	Craft person
	RHj	ME6	Healer
	OH	ME7	Community
	SH	ME8	Community
	HS	ME9	Daughter of healer

Research Participants	Initials	Codes
Cultural Heritage		
River	AL	POL1
	JI	POL2
	JO	POL3
	HH	POL4
	DNT	POL5
	HA	POL6
	PL	POL7
	PM	POL8
Hill	BF	ATF1
	AM	ATF2
	NA	ATF3
	MD	ATF4
	LP	ATF5
	PS	ATF6
Lake	SH	DOA1
	JL	DOA2
	JN	DOA3
	DH	DOA4
	WM	DOA5
	NR	DOA6
	DH	DOA7
	AA	DOA8
Sea	LM	DOB1
	NH	DOB2
	BA	DOB3
	MT	DOB4
	SZ	DOB5
	IM	DOB6
	AK	DOB7
	GU	DOB8

Highlands	RM MN	PLA$_1$ PLA$_2$
Valley	JLB RA	LM$_1$ LM$_2$

Appendix 3   *Codes for cultural institutions*

Institution Pseudonyms	Institutional focus	Collection focus
River	Documentation and Policies	Oral traditions
Sea	Documentation and Records	Publications and documentations
Lake	Documentation and Records	Publications and documentations
Hill	Documentation and Artefacts	Material culture
Highlands	Documentation and Artefacts	Oral history, focus on medicinal plants and traditional medical practices
Valley	Living museum	Oral history and performing arts

Appendix 4   *Interview Participant Information Sheet*

INTERVIEW PARTICIPANT INFORMATION SHEET
(Indigenous/Ethnic Group)

RESEARCHER: Rashidah Bolhassan
School of Information Management
Faculty of Commerce and Administration
Victoria University of Wellington

Dear Sir/Madam

I am a PhD student at the School of Information Management, Faculty of Commerce and Administration, Victoria University of Wellington. I am undertaking a research project as a requirement of this degree, leading to a thesis. This research explores knowledge sharing processes of selected indigenous groups and the heritage sector in Sarawak, Malaysia. The University requires that ethics approval be obtained for research involving human participants.

This research project is entitled: **Preserving and conserving the secret and sacred knowledge in Sarawak's traditional cultural expressions: A knowledge management approach.**

The focus of the research is to explore and understand the sharing processes of indigenous knowledge amongst the selected ethnic groups of Sarawak, and how modern knowledge management concepts can be applied in the preservation and conservation of the secret and sacred indigenous knowledge content of traditional cultural expressions (TCEs).

You are invited to participate in this research project as you are a knowledge holder from the indigenous group. Your input based on your experience in knowledge sharing will help me understand the processes, the confidentiality canons, and the rituals. I would like to seek your cooperation by participating, either as a member of a focus group, or/and in one-to-one interview. I hope you will find that this is a worthwhile area of research towards the preservation of indigenous knowledge, and agree to cooperate in the interview.

The one-to-one interview will take about 60 minutes and would be at a time suitable to you. The focus group will also take about 60 minutes. I will record the interviews using a digital recorder to allow for correct transcribing following the interviews.

The responses collected from the interview will form the basis of my research project. No other person besides me and my supervisors, Dr. Brian Harmer and Professor Gary Gorman,

will be able to see and access the audio copy and transcript of the interview. The thesis will be submitted for marking to the School of Information Management and deposited in the University Library. It is intended that one or more articles will be submitted for publication in scholarly journals. The audio copy and transcript of interview will be destroyed two years after the end of the project.

I will take the necessary measures to ensure that no personal or sensitive information will be asked for during the interviews, and as a participant, you have the right to refuse to answer any questions which you are uncomfortable with.

If you agree to participate in the interview, kindly fill in the attached consent form. Should you feel the need to withdraw from the project, you may do so at any time by informing me before 1st March 2011. If you do so, all information provided by you will be removed from the study and all records of your participation deleted.

If you have any questions or would like to receive further information about the research project, please contact my supervisors:

> Dr. Brian Harmer / Professor Gary Gorman
> School of Information Management
> Faculty of Commerce and Administration
> Victoria University of Wellington
> Wellington 6041
> E-mail: brian.harmer@vuw.ac.nz   Telephone: +64 4 4635887
>   gary.gorman@vuw.ac.n   Telephone: +64 4 4635782

or you could contact me directly:

> Rashidah Bolhassan
> School of Information Management
> Faculty of Commerce and Administration
> Victoria University of Wellington
> Wellington 6041
> E-mail: rashidah.bolhassan@vuw.ac.nz
> Telephone: +64 21 0364844 (mobile New Zealand))
>   +60198575242 (mobile Malaysia)

Yours sincerely,

Rashidah Bolhassan

INTERVIEW PARTICIPANT INFORMATION SHEET
(Staff of GLAM Sector)

RESEARCHER: Rashidah Bolhassan
School of Information Management
Faculty of Commerce and Administration
Victoria University of Wellington

Dear Sir/Madam

I am a PhD student at the School of Information Management, Faculty of Commerce and Administration, Victoria University of Wellington. I am undertaking a research project as a requirement of this degree, leading to a thesis. This research explores knowledge sharing processes of selected indigenous groups and the heritage sector in Sarawak, Malaysia. The University requires that ethics approval be obtained for research involving human participants.

This research project is entitled: **Preserving and conserving the secret and sacred knowledge in Sarawak's traditional cultural expressions: A knowledge management approach.**

The focus of the research is to explore and understand the sharing processes of indigenous knowledge amongst the selected ethnic groups of Sarawak, and how modern knowledge management concepts can be applied in the preservation and conservation of the secret and sacred indigenous knowledge content of traditional cultural expressions (TCEs).

You invited to participate in this research project as you are a knowledge holder from the GLAM (galleries, libraries, archives and museums) sector of the Sarawak Civil Service. Your input based on your experience in knowledge sharing will help me understand the processes, the confidentiality canons, and the rituals. I would like to seek your cooperation by participating, either as a member of a focus group, or/and in one-to-one interview. I hope you will find that this is a worthwhile area of research towards the preservation of indigenous knowledge, and agree to cooperate in the interview.

The one-to-one interview will take about 60 minutes and would be at a time suitable to you. The focus group will also take about 60 minutes. I will record the interviews using a digital recorder to allow for correct transcribing following the interviews.

The responses collected from the interview will form the basis of my research project. No other person besides me and my supervisors, Dr. Brian Harmer and Professor Gary Gorman, will be able to see and access the audio copy and transcript of the interview. The thesis will be submitted for marking to the School of Information Management and deposited in the University Library. It is intended that one or more articles will be submitted for publication

in scholarly journals. The audio copy and transcript of interview will be destroyed two years after the end of the project.

Due to the small number of staff from the GLAM sector of the Sarawak Civil Service, involved in the preservation and conservation of indigenous knowledge, I will take the necessary measures to ensure that no personal or sensitive information will be asked for during the interviews, and as a participant, you have the right to refuse to answer any questions which you are uncomfortable with.

If you agree to participate in the interview, kindly fill in the attached consent form. Should you feel the need to withdraw from the project, you may do so at any time by informing me before 1st March 2011. If you do so, all information provided by you will be removed from the study and all records of your participation deleted.

If you have any questions or would like to receive further information about the research project, please contact my supervisors:

Dr. Brian Harmer / Professor Gary Gorman
School of Information Management
Faculty of Commerce and Administration
Victoria University of Wellington
Wellington 6041
E-mail: brian.harmer@vuw.ac.nz   Telephone: +64 4 4635887
            gary.gorman@vuw.ac.n   Telephone: +64 4 4635782

or you could contact me directly:

Rashidah Bolhassan
School of Information Management
Faculty of Commerce and Administration
Victoria University of Wellington
Wellington 6041

E-mail: rashidah.bolhassan@vuw.ac.nz
Telephone: +64 21 0364844 (mobile New Zealand)
                +60198575242 (mobile Malaysia)

Yours sincerely,

Rashidah Bolhassan

MAKLUMAT PESERTA TEMURAMAH KAJIAN
(Kumpulan Pribumi/Etnik)

PENYELIDIK: Rashidah Bolhassan
School of Information Management
Faculty of Commerce and Administration

Tuan/Puan,

Saya adalah pelajar PhD di *School of Information Management, Faculty of Commerce and Administration, Victoria University of Wellington.* Sebagai memenuhi keperluan untuk mendapatkan Ijazah Doktor Falsafah dalam bidang pengurusan maklumat, saya dikehendaki membuat kertas penyelidikan mengenai proses perkongsian ilmu dalam kalangan kumpulan etnik dan sektor warisan di negeri Sarawak, Malaysia. Oleh kerana penyelidikan ini melibatkan tuan/puan sebagai responden kajian maka keperluan mendapatkan kelulusan etika sebelum kajian ini dijalankan menjadi keutamaan pihak universiti.

Tajuk kajian ini adalah: ***Pemuliharaan dan pengabadian ilmu pribumi Sarawak: Satu pendekatan pengurusan pengetahuan.***

Penyelidikan ini memberi fokus pada penerokaan dan usaha untuk memahami proses perkongsian ilmu dalam kalangan kumpulan etnik yang dipilih di Sarawak. Selain itu, penyelidikan ini juga cuba untuk meninjau bagaimana konsep pengurusan pengetahuan moden boleh di aplikasikan dalam pemuliharaan dan pengabadian ilmu pribumi yang terdapat atau terkandung dalam ekspresi pelbagai bentuk budaya tradisional.

Penglibatan tuan/puan dalam penyelidikan ini sangat penting dan dihargai. Pemilihan tuan/puan sebagai responden bagi kajian ini dibuat berdasarkan kapasiti keilmuan yang berkaitan dengan skop kajian. Pendapat serta pengalaman tuan/puan dalam bidang ini akan membantu saya untuk memahami proses perkongsian pengetahuan, serta perkara-perkara seperti amalan hukum-hakam dan upacara adat serta *ritual* yang diamalkan dengan lebih mendalam.

Justeru, saya mohon persetujuan serta penglibatan tuan/puan untuk ditemubual sama ada secara individu, atau sebagai seorang ahli dalam kumpulan fokus. Hasil dari temubual diperingkat individu serta kumpulan fokus akan dapat membantu kita semua dalam usaha untuk mempertingkatkan usaha kearah pemuliharaan pengurusan pengetahuan ilmu pribumi yang lebih baik.

Temuramah secara individu dijangka mengambil masa selama 60 minit mengikut kesesuaian masa yang akan ditetapkan dengan persetujuan tuan/puan. Manakala temubual melalui kumpulan fokus juga akan mengambil masa selama 60 minit. Untuk makluman tuan/puan juga, temubual tersebut akan dirakamkan agar ianya boleh ditranskripkan setepat mungkin. Segala maklumbalas dari temubual yang diperolehi dalam kajian ini adalah merupakan asas utama dalam penulisan laporan kajian. Hanya saya dan penyelia-penyelia akademik saya, iaitu Dr. Brian Harmer dan Profesor Gary Gorman, akan mempunyai akses kepada segala salinan audio dan transkrip temubual kajian ini. Penyerahan tesis/Laporan akhir kajian akan dihantar untuk tujuan penilaian dan semakan oleh *School of Information Management,* dan akan diserah kepada Perpustakaan Universiti untuk simpanan-rujukan. Beberapa buah artikel dari dapatan kajian ini juga akan diterbitkan dalam jurnal-jurnal akademik. Salinan audio dan transkrip temuramah akan dilupuskan dalam tempoh dua tahun selepas projek penyelidikan/kajian ini selesai.

Saya akan usahakan supaya soalan-soalan yang berbentuk personal atau sensitif tidak akan ditanya semasa temubual tersebut. Sebagai responden, tuan/puan mempunyai hak untuk tidak menjawab soalan-soalan yang tidak menyenangkan tuan/puan.

Jika tuan/puan setuju untuk mengambil bahagian dalam temubual ini, sila isikan borang persetujuan yang disertakan. Sekiranya tuan/puan ingin menarik diri dari menjadi responden (selepas ditemubual) dalam kajian ini, sila maklumkan saya sebelum 1 Mac 2011.

Sekiranya Tuan/Puan ada mempunyai sebarang pertanyaan, atau ingin mengetahui dengan lebih lanjut tentang projek ini, sila hubungi penyelia saya :

> Dr. Brian Harmer / Professor Gary Gorman
> School of Information Management
> Faculty of Commerce and Administration
> Victoria University of Wellington
> Wellington 6041
> e-mail: brian.harmer@vuw.ac.nz   Telefon: +64 4 4635887
>   gary.gorman@vuw.ac.n   Telefon: +64 4 4635782

atau menghubungi saya :

> Rashidah Bolhassan
> School of Information Management
> Faculty of Commerce and Administration
> Victoria University of Wellington
> Wellington 6041
> e-mail: rashidah.bolhassan@vuw.ac.nz
> Telefon: +64 21 0364844 (mobile New Zealand)
>   +60198575242 (mobile Malaysia)

Yang Ikhlas,

Rashidah Bolhassan

[This translation has been certified appropriate and correct by Dr. Rosli Mohammed, Director, Malaysian Students Department, New Zealand]

MAKLUMAT PESERTA TEMURAMAH KAJIAN
(Staf Sektor Warisan)

PENYELIDIK: Rashidah Bolhassan
School of Information Management,
Faculty of Commerce and Administration

Tuan/Puan,

Saya adalah pelajar PhD di *School of Information Management, Faculty of Commerce and Administration, Victoria University of Wellington.* Sebagai memenuhi keperluan untuk mendapatkan Ijazah Doktor Falsafah dalam bidang pengurusan maklumat,saya dikehendaki membuat kertas penyelidikan mengenai proses perkongsian ilmu dalam kalangan kumpulan etnik dan sektor warisan di negeri Sarawak, Malaysia. Oleh kerana penyelidikan ini melibatkan tuan/puan sebagai responden kajian maka keperluan kelulusan etika sebelum kajian ini dijalankan menjadi keutamaan pihak universiti.

Tajuk kajian ini adalah: *Pemeliharaan dan pengabadian ilmu pribumi Sarawak: Satu pendekatan pengurusan pengetahuan.*

Penyelidikan ini memberi fokus pada penerokaan dan usaha untuk memahami proses perkongsian ilmu dalam kalangan kumpulan etnik yang dipilih di Sarawak. Selain itu, penyelidikan ini juga cuba untuk meninjau bagaimana konsep pengurusan pengetahuan moden boleh di aplikasikan dalam pemuliharaan dan pengabadian ilmu pribumi yang terdapat atau terkandung dalam ekspresi pelbagai bentuk budaya tradisional.

Penglibatan tuan/puan dalam penyelidikan ini sangat penting dan dihargai. Pemilihan tuan/puan sebagai responden bagi kajian ini dibuat berdasarkan kapasiti keilmuan (kepakaran) sebagai pengamal dalam institusi sektor warisan (melibatkan galeri, perpustakaan, arkib dan museum) dalam Perkhidmatan Awam Negeri Sarawak. Pendapat serta pengalaman tuan/puan dalam bidang ini akan membantu saya untuk memahami proses perkongsian penegetahuan pribumi, serta perkara-perkara berkaitan seperti amalan hukum-hakam dan upacara adat serta *ritual* yang diamalkan dengan lebih mendalam.

Justeru, saya mohon persetujuan serta penglibatan tuan/puan untuk ditemubual sama ada secara individu, atau sebagai seorang ahli dalam kumpulan fokus. Hasil dari temubual diperingkat individu serta kumpulan fokus akan dapat membantu kita semua dalam usaha untuk mempertingkatkan usaha kearah pemuliharaan pengurusan pengetahuan ilmu pribumi yang lebih baik.

Temuramah secara individu akan mengambil masa selama 60 minit mengikut kesesuaian masa yang akan ditetapkan dengan persetujuan tuan/puan. Manakala temubual melalui

kumpulan fokus juga akan mengambil masa selama 60 minit. Untuk makluman tuan/puan juga, temubual tersebut akan dirakamkan agar ianya boleh ditranskripkan setepat mungkin.

Segala maklumbalas dari temubual yang diperolehi dalam kajian ini adalah merupakan asas utama dalam penulisan laporan kajian. Hanya saya dan penyelia-penyelia akademik saya, iaitu Dr. Brian Harmer dan Profesor Gary Gorman, akan mempunyai akses kepada segala salinan audio dan transkrip temubual kajian ini. Penyerahan tesis/Laporan akhir kajian akan dihantar untuk tujuan penilaian dan semakan oleh *School of Information Management,* dan akan diserah kepada Perpustakaan Universiti untuk simpanan-rujukan. Beberapa buah artikel dari dapatan kajian ini juga akan diterbitkan dalam jurnal-jurnal akademik. Salinan audio dan transkrip temuramah akan dilupuskan dalam tempoh dua tahun selepas projek penyelidikan/kajian ini selesai.

Oleh kerana bilangan pegawai-pegawai sektor warisan yang terlibat dalam pemuliharaan dan pengabadian ilmu pribumi, adalah kecil, langkah-langkah berwajaran akan diambil untuk menjaga kepentingan serta kehormatan individu serta semua pihak yang terlibat. Saya akan usahakan supaya soalan-soalan yang berbentuk personal atau sensitif tidak akan ditanya semasa temubual tersebut. Sebagai responden, tuan/puan mempunyai hak untuk tidak menjawab soalan-soalan yang tidak menyenangkan tuan/puan.

Jika tuan/puan setuju untuk mengambil bahagian dalam temubual ini, sila isikan borang persetujuan yang disertakan. Sekiranya tuan/puan ingin menarik diri dari menjadi responden (selepas ditemubual) dalam kajian ini, sila maklumkan saya sebelum 1 Mac 2011.

Sekiranya Tuan/Puan ada mempunyai sebarang pertanyaan, atau ingin mengetahui dengan lebih lanjut tentang projek ini, sila hubungi penyelia saya :

Dr. Brian Harmer / Professor Gary Gorman
School of Information Management
Faculty of Commerce and Administration
Victoria University of Wellington
Wellington 6041
e-mail: brian.harmer@vuw.ac.nz   Telefon: +64 4 4635887
          gary.gorman@vuw.ac.n   Telefon: +64 4 4635782
atau menghubungi saya :

Rashidah Bolhassan
School of Information Management
Faculty of Commerce and Administration
Victoria University of Wellington
Wellington 6041
e-mail: rashidah.bolhassan@vuw.ac.nz
Telefon: +64 21 0364844 (mobile New Zealand)
          +60198575242 (mobile Malaysia)

Yang Ikhlas,

Rashidah Bolhassan
[This translation has been certified appropriate and correct by Dr. Rosli Mohammed, Director, Malaysian Students Department, New Zealand]

Appendix 5   Participant Consent Sheet

TE WHARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI

VICTORIA

UNIVERSITY OF WELLINGTON

CONSENT TO PARTICIPATION IN RESEARCH

KEBENARAN UNTUK DITEMUBUAL BAGI TUJUAN PENYELIDIKAN

Preserving and conserving the secret and sacred knowledge in Sarawak's traditional cultural expressions: A knowledge management approach.

Pemuliharaan dan pengabadian ilmu pribumi Sarawak: Satu pendekatan pengurusan pengetahuan

I have been given and have understood an explanation of this research project. I have had an opportunity to ask questions and have them answered to my satisfaction. I understand that I may withdraw myself (or any information I have provided) from this project (before 1st March 2011) without having to give reasons or without penalty of any sort.

I understand that any information I provide will only be accessed by the researcher and her supervisors.I understand that my name will not be used in the published results. I understand that the tape recording and the full transcription of interviews will be kept secure at all times. I understand that the data I provide will not be used for any purpose or released to others.

Saya telah diberi penerangan secukupnya dan faham mengenai projek penyelidikan ini. Saya juga diberi peluang untuk bertanya beberapa soalan serta mendapat jawapan yang memuaskan dari penyelidik. Saya difahamkan bahawa saya boleh menarik diri (atau apa jua maklumat yang telah saya berikan) dari projek penyelidikan ini (sebelum 1 Mac 2011) temubual dan proses transkripsi temubual tamat) tanpa perlu memberi apa jua alasan atau dikenakan sebarang tindakan penalti.

Saya memahami bahawa semua maklumat yang diberikan semasa proses temubual ini adalah untuk kegunaan dan capaian penyelidik serta penyelia-penyelia beliau sahaja. Saya juga sedar bahawa penyelidik tidak akan menyatakan nama saya secara individu dalam apa jua pendapat diberikan dalam temubual ini serta dalam laporan penyelidikan. Saya juga faham bahawa rakaman temubual dan juga transkrip temubual tersebut akan disimpan di tempat yang

selamat sepanjang masa. Saya juga faham bahawa semua maklumat yang saya berikan tidak akan digunakan untuk tujuan lain atau disebarkan kepada mana-mana pihak lain selain dari tujuan penyelidikan ini.

	I have been given and have understood an explanation of this research project.

    Saya telah diberi penerangan yang menyeluruh dan faham tentang projek penyelidikan ini.

Signed/*Tandatangan:* **_____**

Name/*Nama:* **_____**

[This translation has been certified appropriate and correct by Dr. Rosli Mohammed, Director, Malaysian Students Department, New Zealand]

CONSENT TO PARTICIPATION IN RESEARCH
KEBENARAN UNTUK DITEMUBUAL BAGI TUJUAN PENYELIDIKAN
(To be used for participants who are not able to read/understand Bahasa Malaysia)

Preserving and conserving the secret and sacred knowledge in Sarawak's traditional cultural expressions: A knowledge management approach.

Pemuliharaan dan pengabadian ilmu pribumi Sarawak: Satu pendekatan pengurusan pengetahuan

I have been given and have understood an explanation of this research project. I have had an opportunity to ask questions and have them answered to my satisfaction. I understand that I may withdraw myself (or any information I have provided) from this project (before 1st March 2011) without having to give reasons or without penalty of any sort.

I understand that any information I provide will only be accessed by the researcher and her supervisors. I am aware that my name would not be used in the published result. I understand that the tape recording and the full transcription of interviews will be kept secure at all times. I understand that the data I provide will not be used for any purpose or released to others.

To be read by Interpreter:

Saya telah diberi penerangan dan yang secukupnya dan faham mengenai projek penyelidikan ini. Saya juga diberi peluang untuk bertanya beberapa soalan serta mendapat jawapan yang memuaskan dari penyelidik. Saya difahamkan bahawa saya boleh menarik diri (atau apa jua maklumat yang telah saya berikan) dari projek penyelidikan ini (sebelum 1 Mac 2011) tanpa perlu memberi apa jua alasan atau dikenakan sebarang tindakan penalti.

Saya memahami bahawa semua maklumat yang diberikan semasa proses temubual ini adalah untuk kegunaan dan capaian penyelidik serta penyelia-penyelia beliau sahaja. Saya juga sedar bahawa penyelidik tidak akan menyatakan nama saya secara individu dalam apa jua pendapat diberikan dalam temubual ini serta dalam laporan penyelidikan.Saya juga faham bahawa rakaman temubual dan juga transkrip temubual tersebut akan disimpan di tempat yang selamat sepanjang masa. Saya juga faham bahawa semua maklumat yang saya berikan tidak akan digunakan untuk tujuan lain atau disebarkan kepada mana-mana pihak lain selain dari tujuan penyelidikan ini.

Research Participant/ Peserta Kajian:

<div style="border:1px solid black; width:60px; height:60px;"></div>

I have been given and have understood an explanation of this research project.

Saya telah diberi penerangan yang menyeluruh dan faham tentang projek penyelidikan ini.

Thumb print/ *cap jari:* _____

Name/*Nama:* _____

Interpreter/*Penterjemah*:

Signed/*Tandatangan:* _____

Name/*Nama:* _____

[This translation has been certified appropriate and correct by Dr. Rosli Mohammed, Director, Malaysian Students Department, New Zealand]

Appendix 6   *Letter of Consent for research assistant*

TE WHARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI

VICTORIA

UNIVERSITY OF WELLINGTON

CONSENT TO ASSIST IN RESEARCH

Preserving and conserving the secret and sacred knowledge in Sarawak's traditional cultural expressions: A knowledge management approach.

I have been given and have understood an explanation of this research project. I understand that I am to assist in the preparation of logistics for /transcriptions of the interviews.
I understand that the tape recordings and the full transcription of interviews will be kept secure at all times. I understand that the data I assisted to acquire from the participants will not be used for any purpose or released to others.

I have been given and have understood an explanation of this research project.

Signed: _____

Name: _____

Appendix 7 Indigenous participants' pseudonyms

Pseudonym	Gender	Indigenous group	Role
Adrin	M	Iban	Paramount Chief
Danai	M	Iban	Knowledge holder
Dinel	M	Iban	Knowledge holder
Hamina	F	Melanau	Craftsperson
Kanikie	M	Melanau	Knowledge holder
Koteng	M	Melanau	Healer
Lehat	M	Melanau	Knowledge holder
Libet	F	Orang Ulu	Community Leader
Margaret	F	Iban	Weaver
Padeng	M	Orang Ulu	Paramount Chief
Rinain	F	Iban	Knowledge holder
Rosham	F	Melanau	Healer
Sagau	M	Orang Ulu	Musician
Solmelo	M	Melanau	Knowledge holder
Susil	M	Iban	Knowledge holder

Appendix 8   Cultural institutions participants' pseudonyms

Pseudonym	Gender	CHI	Role
Adina	F	Lake	Executive
Alys	M	River	Researcher
Andang	M	River	Researcher
Brodie	M	Hill	Researcher
Dayani	F	Lake	Executive
Embun	M	River	Researcher
Hekel	M	River	Researcher
Jawie	M	River	Researcher
Jelia	F	Valley	Executive
Jina	F	Sea	Executive
Mandy	F	Highlands	Researcher
Niman	F	Highlands	Reseracher
Rami	M	Valley	Executive

Appendix 9   *Glossary of Indigenous Terms*

Term	Usage	Description
abayoh	Melanau	Traditional healing
adat	Iban, Melanau, Malay	Native customary laws or practices
adet	Orang Ulu	Native customary laws or practices
amai	Orang Ulu	A term used to address community leaders or elders, literally menas "Father"
anak buah	Iban, Malay	members of the community
bayoh	Melanau	shaman or traditional healer
bemban	Iban	rattan
berandau	Iban	sitting around or meeting sessions
bertaris	Malay	stripes
bomoh	Malay	traditional healer
bunga tabur	Malay	flower designs on textiles
dayung	Orang Ulu	traditional healer or shaman
embiao	Iban	ceremonial or traditional prayer
engkudu	Iban	Noni or Morinda citrifolia (L)
ensera	Iban	legend or poetic epics
entelah	Iban	readers
gotong royong	Malay	communal participation
Ipok	Melanau	The spirit of knowledge

katakaku nangku	Iban	the song for head trophies
Keling	Iban	A legendary male warrior
kering semangat	Iban	soul strengthener for the manang (spirit medium/shaman)
Ketua Kampung	Malay	Village headmen
ketua masyarakat	Malay	Community leaders
Kumang	Iban	A legendary female figure
lemambang	Iban	Shaman
lukut belak	Orang Ulu	Beads used in the Orang Ulu culture
lukut sekala'	Orang Ulu	The highest grade of beads that can only be used by the Orang Ulu aristocrats
lukut sekala' doh	Orang Ulu	The second highest grade of beads that can only be used by the Orang Ulu aristocrats
lukut selibau	Orang Ulu	Beads used in the Orang Ulu culture
manang	Iban	spirit medium or shaman
maren	Orang Ulu	The aristocrat clan, the highest stratum in the Orang Ulu social stratification
maren uma'	Orang Ulu	The highest of the aristocrat clan who form the ruling class in the longhouse
mentera	Iban, Melanau	incantation
mesi' balu	Iban	Cleansing ritual of bereaved spouse
miring	Iban	An offering ritual
ngambik tebalu	Iban	ritual to signify the end of a mourning period for the bereaved spouse
ngetas ulit	Iban	Cleansing ritual of bereaved spouse
padi	All indigenous groups	rice
panyin	Orang Ulu	The ordinary people of the Orang Ulu group

papan turai	Iban	writing board
parang	All indigenous groups	machette
parang ilang	Orang Ulu	Ceremonial machette
pengeras	Iban, Malay	A token, in fulfilment of a cultural or spiritual requirement. Ritual propitiation.
perca	Melanau; Malay	handkerchief
pikul	Melanau	the term for Melanau societal tier system
pua	Iban	woven textile or blanket
ramban	Iban	another type of invocatory chants
ruai	Iban	common area or public gallery in a long house
rumah panjang	Iban	longhouse
sabaq	Iban	ritual dirge or chants
sampei'	Orang ulu	strumming
sape	Orang Ulu	a three-string guitar-like musical instrument, with movable frets
tajau	Iban	Jars or vases
tawaks	Iban, Orang Ulu	Gongs
Temenggong	All indigenous groups	The highest echelon of community leaders
terindak	Melanau, Malay	traditional hat
timang	Iban	invocatory chants, invocation
tuai rumah	Iban	head of a longhouse
tuak	Iban	rice wine

tulah	Iban, Orang Ulu, Malay	a curse
tusut	Iban	genealogy; life histories

Appendix 10   Examples of substantive codes

- Cultural Institutions:

  - Institutions, such as libraries, archives and museums that are established to assist in the preservation, interpretation and conservation of ICH.

  - The acronym CIs is also used to refer to these institutions.

- Cultural sensitivity:

    Cultural sensitivity is recognising and respecting a different culture (Burger, 1968). Cultural sensitivity for this study specifically refers to indigenous sensitivity, in line with the integrated nature of indigenous knowledge (Grenier, 1998) that covers the entirety of the intellectual and indigenous cultural heritage that gives a group of people their distinct identity (Khamaganova, 2003). My working definition of cultural sensitivity is the ability to incorporate indigenous elements of care, respect, and understanding of the philosophy and the representations of ICH and in the indigenous knowledge framework. This framework of indigenous knowledge is that knowledge is still tacit in the minds of the knowledge holder, and, it is linked to the spiritual and environmental realms of the people. ICH that has indigenous sensitivity has invisible conceptual attributes such as the sacredness, religious meanings or other aspects of cultural significance to the community.

- Safeguarding/Documentation

  - Audio or visual recording, transcribing, and to an extent, making available and accessible, oral traditions and culture, mainly for the purpose of preservation and conservation.

- Indigenous knowledge

  - An integrated body of knowledge of the indigenous people used in their everyday life, ranging from learning systems, life skills knowledge such as agriculture and husbandry, to matters relating to their ecosystem, healing, ingrained with their local beliefs and culture or way of life, including the sacred aspect of their knowledge.

- Indigenous people

  - Also termed source communities, those groups of people who 'remain culturally distinct, some with their native languages and belief systems still alive. [They] possess the ancient memories of another way of knowing that informs many of their contemporary practices' (L. Smith, 2008).

- Knowledge management

    - The way of managing information and knowledge so that members of an organization or a community are willing to share information, knowledge and processes for knowledge retention and creation.

- Knowledge sharing

    - This refers to the dual process of deliberately acquiring and contributing to knowledge through activities such as learning-by-observation, listening and asking, sharing ideas.

    - Intangible cultural heritage (ICH)These are both tangible and intangible, such as songs, rituals, artefacts, which are/were used in the daily cultural life of the indigenous groups

- Tacit knowledge

    - Knowledge inherent in a person or an entity, which can be made explicit, but not in totality.

- Trust

    - Having faith in another person on his or her ability and commitment to carry out entrusted responsibilities.

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