Knowledge Management in Sri Lankan Indigenous Organizations: A Case Study on Mask Carving Industry

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Abstract

Knowledge management is recognized as a prerequisite for the survival and progression of a society. Mainstream research is too focused on studying knowledge management practices in private and public sector organizations. It signifies a significant gap in the literature, in relation to knowledge management research in indigenous organizations especially in Sri Lanka. Sri Lanka is a country rich in diversified indigenous organizations which satisfy the economic and societal needs of local people since ancient times. Knowledge management practices of indigenous organizations were shaped and reshaped by the changes of Sri Lankan society. The purpose of this paper is to uncover knowledge management practices in the indigenous mask carving industry and examine the urgent need to build and preserve the indigenous intellectual capital of Sri Lanka to participate effectively in the knowledge economy. Consequently, the paper specifically examines knowledge creation, knowledge codification, knowledge sharing and knowledge forgetting of a well-known mask carving generation in Sri Lanka. Case study approach was employed to understand knowledge management practices where observation, semi-structured interviews, and visual methods were used to gather the required data. Folklore and traditional ceremonial chanting were interpreted. The case study reveals that, the tacit knowledge is the predominant form of knowledge in indigenous organizations therefore the effort taken to codify knowledge was limited. It further reveals knowledge sharing was restricted within the industry, leading to knowledge forgetting, which is the key barrier for the survival of indigenous organizations in the present volatile and turbulent environment. Finally, the paper suggests the urgent requirement to build, store and preserve indigenous knowledge for the survival and progression of Sri Lanka, before important elements in indigenous knowledge is irretrievably lost.

Keywords: Knowledge management, Indigenous organizations, Mask carving, Sri Lanka

INTRODUCTION

Knowledge Management (KM) as a discipline received the greatest attention with the emergence of the notion, knowledge as a strategic asset in the post-industrial society. Consequently, KM is recognized as a prerequisite for the survival and the progression of the society which operates in a hyper competitive and a turbulent environment (Wigg, 2007; Massingham, 2014).

Inspired by Daniel Bell's post-industrial society concept, many researchers signified the development of a knowledge economy through their work (Bhardwaj & Monin, 2006; Hislop, 2009; Massingham, 2014). Further, researchers recognized the important contribution of the knowledge economy to increase the quality of life of the society. Mainstream research is focused to understand the KM practices in private and public sector organizations (see Bogner & Bansal, 2007; Ebbers & Wijnberg, 2009; Paroutis & Al Saleh, 2009; Kumar & Ganesh, 2011). However, limited studies are conducted to understand the KM practices in indigenous organizations throughout the world (Sukula, 2006; Lwoga, 2010).

Wigg (2007) recognized the importance to build strong societal intellectual capital at local and domestic level in order to effectively participate in the global knowledge economy. Further, with the development of the notions of pluralism and the global perspective of multicultural education, indigenous knowledge is acknowledged as the foundation for the culturally diversified progression of the society (Wasonga, 2005; Lobb, 2012). Therefore, conducting research is vital to understand, build and preserve the indigenous knowledge with objectives to effectively participate in the global knowledge economy while sustaining the cultural diversity.

As emphasized above, Sri Lanka should thoroughly understand the indigenous knowledge embedded in its culture. Therefore, the paper intends to uncover the KM practices in indigenous organizations and examine the urgent requirement to build and preserve the indigenous intellectual capital of Sri Lanka. Hence, for the accomplishment of stated objectives, the research was conducted focusing on traditional mask carving industry.

LITERATURE REVIEW

Knowledge and Knowledge Management

The quest to understand the notion of knowledge was a philosophical interest since early historical periods. Despite of divergence in literature, we have articulated the literature review as below.

Plato defined knowledge as justified true belief. Nonaka and Takeuchi (1995) identified knowledge as a dynamic human process of justifying personal belief toward the truth. Davenport and Prusak (1998) asserted knowledge as a fluid mix of framed experiences, values, contextual information and expert insights.

Further, knowledge can be identified by the two dichotomies of tacit and explicit knowledge (Nonaka and Takeuchi, 1995; Polyani, 1996). Tacit knowledge is the form of knowledge that a person develops through experiences based on a particular context. Therefore, it is personal and subjective to one's experiences and context. It results, the difficulty in knowledge sharing or inexpressibility of knowledge. On the other hand, explicit knowledge is the form of knowledge that is codified. Hence, it is context independent. Therefore, explicit knowledge is impersonal and objective. Thus, it is easily shared.

Knowledge spiral or SECI model of Nonaka and Takeuchi (1995) is an important technique to identify the interrelationship among the tacit and explicit knowledge and conversion of knowledge through a never ending spiral. It includes socialization, externalization, combination and internalization processes. The process of socialization involves conversion of existing tacit knowledge to new forms of tacit knowledge. The process of externalization involves conversion of tacit knowledge to explicit knowledge. Combination involves conversion of explicit knowledge to new forms of explicit knowledge while the process of internalization involves conversion of explicit knowledge to tacit knowledge.

KM is differently defined by many scholars because there is no unified, single and a coherent method to manage knowledge in organizations. Hislop (2009) asserts, KM as an umbrella term, which includes any deliberate effort to manage knowledge of workforce via a wide range of methods, including direct and indirect social processes. KM therefore embodies all organizational processes which synergies the knowledge creating, knowledge capturing,

knowledge codifying, knowledge sharing, knowledge formalizing, knowledge forgetting, and any knowledge sustaining processes.

Indigenous Knowledge and KM in Sri Lanka

Indigenous knowledge is also identified as local knowledge, folk knowledge and local know-how. As identified by Lwoga (2011), indigenous knowledge consists of unique local specified knowledge which is confined to a particular culture and people. Indigenous knowledge is passed from generation to generation usually by word of mouth in forms folklore, folk songs, riddles and cultural rituals. Therefore it serves as a basis of demonstrating the creativity, talents, social and economic evolution of civilizations.

Senanayake (2006) identifies indigenous knowledge as the social capital of the poor which they have accumulated in the struggle of life. He has further demonstrated the characteristics of indigenous knowledge based on the frameworks of Ellen and Harris (1996) as the knowledge which is local, orally transmitted, developed through practical engagement, involves repetition, empirical rather than theoretical and culturally confined. Simply, indigenous knowledge can be considered as the science of local people applied to their livelihood in agriculture, medicine, education, environment conservation etc. (Lwoga 2011, Sukla 2006).

When Sri Lankan society gradually developed economically and socially, indigenous industries emerged to satisfy the needs of local people. Sri Lanka is also recognized by the world as a nation with a history extending beyond two thousand five hundred years rich in indigenous knowledge in relation to sustainable agricultural practices, traditional healing, Ayurveda practices, *shanthi karma* (dancing for blessing), astrology etc.

Ulluwishewa (1992) conducted a research to signify sustainable indigenous agricultural practices of Sri Lanka for the conservation of eco-system. He has further recognized the importance of integrating the indigenous know-how with modern scientific knowledge. Dharmasena (2010) has recognized different forms of indigenous knowledge, including information, belief, communication, education, tools, materials, experiments, biological resources, human resources and local education with relation to indigenous knowledge in farming practices.

Reviewing the literature, it signified the gap in literature from below perspectives. Firstly, research about indigenous knowledge in Sri Lanka was focused on agricultural practices. Researchers have not focused to study about other perspectives such as Ayurveda practices, *Shanthi Karma*, traditional aesthetic activities, astrology etc. Secondly, previous research about indigenous knowledge in Sri Lanka is not focused to apply the KM frameworks. Simply put, the studies were not conducted from the point of view of management as a discipline rather has considered from viewpoints of agriculture and sustainable development disciplines.

Having identified the gaps in literature, we employed the Nonaka and Takeuchi (1995) SECI framework, including socialization, externalization, combination and internalization, the spiral knowledge creation process in order to understand the knowledge creation process of indigenous organizations. Further, organizational learning framework of Crossan/Zietma (Zietsma et. al. 2002) was employed to understand the organizational learning which is embedded in individual and group learning reflected and modified by the organizational process and structures. The model was specifically used to analyze the development of individual knowledge level to the indigenous organizational knowledge level. Next, knowledge capturing tools, codification, knowledge sharing and unlearning are studied. Finally, we have suggested several approaches to progress as an industry based on our empirical findings.

METHODOLOGY

In order to uncover the KM practices of indigenous organizations, mask carving industry was selected. The main reason for selecting the industry was the gap in literature as emphasized above. Further, mask carving tradition extends to pre-historical period justified by the archaeological evidences. Therefore, it is vital to recognize how KM practices were shaped and reshaped in mask carving industry subjected to changes in society.

Case study method was employed to capture the deep insights of KM practices within a bounded context. A well-known mask carving generation of Sri Lanka operating in Ambalangoda region was selected to conduct the research. Observations at the family owned mask museum and workshop were conducted to understand the practices of the family. Semi-structured interviews were conducted with the owners, members of the family and employees. Folklore, mythologies and ceremonial chanting were interpreted to understand

KM process. Photographs were employed to facilitate interpretation. The data analysis was conducted based on a thematic approach including knowledge creation, knowledge capturing, knowledge codification, knowledge sharing, and unlearning themes.

Secondary resources including books written about traditional *kolam* dancing and *kolam* manuscripts were analyzed to understand the historical background of the industry and were utilized to verify the data generated through primary research.

KM PRACTICES IN CASE ORGANIZATION

Introduction to Mask Carving Industry and the Case Organization

As reviewed in the literature, indigenous knowledge was developed and practiced by the local people to meet their day to day requirements. Considering the indigenous knowledge in relation to health practices and curing illness, the practice of *Shanthi Karma* was utilized. *Shanthi Karma* varied from region to region in the country and the low country especially south western coast practiced the *Shanthi Karma* of *Kolam* dancing.

According to the mythologies, Kolam masks were originated during the period of King *Maha Sammatha*- first king of human beings. *Kolam* dancing was used to eliminate the fear inside the human mind. It is associated with dancing, drumming and mask carving. Mask carving is a local tradition in the southern coastal region especially in the region of Ambalangoda. The caste of *Karava*-caste of fisherman, Buddhism and family occupation especially as fisherman and wood carvers has shaped the mask carving practices in Ambalangoda.

Amongst of a few generations who currently exist in the mask industry, our case organization is one of the pioneers in the industry, leading with a family history running even beyond colonization period. They pass through their fifth generation in this decade (according to written history) and own a museum of masks in Ambalangoda, which is one of the tourist attractions in Sri Lanka. The case organization originated as a family owned organisation which has now converted to a partnership. Number of employees amounts to thirty, who do the carving and painting of masks at the museum. The target customer base of the organization includes mainly international buyers.

KM Practices in Mask Carving Industry

Knowledge Creation Process: It is very difficult to mark the origin of Kolam Dancing due to the unavailability of a direct codified source since it utterly depended on tacit knowledge at very early stages. According to the codified knowledge in *Kolam* scripts, Mahavansa, *Sidath Sangarawa*, opinions of scholars including Ediriweera Sarathchandra and Ananda Comaaraswami, opinions of craftsmen and stories mentioned through folklores, a general understanding could be formed about knowledge creation process of mask carving.

According to *Kolam* scripts, idea generation process of *Kolam* dancing has been associated with a pregnancy craving of the queen of King *Mahasammatha*. *Kolam* dancing and wearing masks was able to satisfy queen's pregnancy craving. Therefore, according to mythologies, idea generation towards carving marks has emerged as a result of pregnancy craving of the queen.

According to local research, *kolam* dancing was performed to satisfy the social needs of people (Bandara, 2000; Amarasekara, 2002). Reducing fear caused by devils, depicting the weaknesses of people through a dramatic approach and providing means of entertainment were the need expectation of local villagers. These needs were satisfied through *kolam* dancing facilitating knowledge creation in the industry.

People who performed *kolam* dancing were experts in masks craving. They had a holistic and integrated knowledge about dancing, playing drums and masks carving. *Kolam* dancers practiced their knowledge by travelling from village to village performing their dancing in groups.

The process of institutionalization of knowledge is evident at three levels of learning including individual, group and organizational level. Individual learning could be identified during early period, where the knowledge was with the *kolam* dancers who travelled from village to village. Their knowledge was highly individualized created through intuition where they developed masks and dances according to different social circumstances and characters they met. For example, *kolam* scripts indicate that only few masks were available in the early periods including king's masks, devil masks etc. But later on, according to different social situations and development of society, mask carvers developed the intuition to carve different masks representing social characters such as *Police Kolama, Lekam Kolama, Maha Mudali*

Kolama which were the titles granted during colonial period in Sri Lanka for police officers, secretaries and ruler of village respectively.

Later on, *kolam* dancers settled especially in the south western coast in Maha Ambalangoda, Ambalangoda, Mirissa, Raigama regions. They formed groups providing knowledge on mask carving to villagers. Therefore, the individual knowledge was passed to several families. Considering the case organization, history could be traced back to several generations where the *guras* (masters who carve masks) have taken attempts to transfer their individual knowledge to their family members creating group knowledge of mask making. Later on, institutionalization of knowledge was clearly visible during the golden era of the industry where generations shared their knowledge creating institutionalized practices, values, culture and norms among themselves.

Conversion of Knowledge: As Nonaka & Takeuchi (1995) asserted, knowledge creation including socialization, externalization, combination and internalization processes is clearly visible in the case organization. The process of socialization is visible when the father's tacit knowledge on shaping, carving, and painting masks were captured by the sons and grandsons through maintaining a closer relationship in a day to day basis. Father's existing tacit knowledge was shaped and reshaped by the sons' and grandsons' ability to grasp knowledge creating new forms of tacit knowledge.

Young craftsmen have looked at their father to identify how each of these different masks got painted differently and developed their tacit knowledge on mask painting. The socialization process is strongly associated with the common value system within the generation. Father has recited the *sholakas* (ceremonial chanting) with their sons. *Sholakas* describe the nature of masks. Therefore the children understood the nature of masks through descriptions in *shlokas.*

The process of externalization is also visible. During the early days, knowledge on mask carving was limited to key individuals. Therefore, the knowledge was predominantly tacit, driven by the experience and practice of the person. However later on, this tacit knowledge on mask creation was transferred to a group level via codification. Several books were written by the pioneers of the family about different techniques of creating different masks indicating the externalization process.

The process of combination is characterized by creation of new forms of explicit knowledge from its existing forms of explicit knowledge in the family. Through generations, the organization owned Ola leaf books including *shlokas*. The *gurus* developed blueprints of masks based on descriptions in *shlokas* facilitating better institutionalization in their family. Finally, the process of internalization is visible where transforming the explicit knowledge to tacit knowledge especially at the mask museum which demonstrates the masks enabling new employees to absorb the knowledge on different masks, historical stories and background of mask carving to their tacit knowledge through observations. Small library and masks displayed further facilitates internalization of knowledge.

However, through the research, findings reveal that new knowledge creation is very limited. Prime factors contributing to the issues include the competency trap and inability to respond to the changes of the environment. Competency trap is detected as a major barrier towards new knowledge creation since the practices and techniques used in creating masks are highly institutionalized and adoption of new methods and techniques is identified to undermine the morals of traditional crafters. Subsequently, new knowledge creation and progression of the indigenous industry is highly vulnerable under the competency trap.

Knowledge Capturing Tools: Knowledge regarding mask carving is heavily driven on the practice based perspective where tacit knowledge is superior. Therefore, knowledge capturing tools tend to be on practice and technical aspects rather than capturing knowledge through codified sources.

Observation is a main source of knowledge capturing technique in the industry. Sons have observed their father from early childhood. Their socialization process was characterized based on the observations in family who were into mask carving throughout the life time. Sons observed how their father selected an appropriate *Kaduru* tree to get wood for the mask and how father carved the *Kaduru* wood to a beautifully shaped mask. Therefore, the pioneers throughout generations have got their sons to observe how they select, carve the wood, apply paint from very small ages to enable younger generation to learn smoothing and unique techniques inherent to the family.

Reciting *shlokas* was another technique to capture knowledge. As previously stated, *shlokas* indicated characteristics of masks which are written on Ola leaf books. For example, the

shloka on *Gara Yaksha* (a devil named *Gara*) as indicated below enabled young cravers to understand the shape of the mask to be carved and features of the character.

Figure 1: Gara Yaksha Mask

Shloka of *Gara Yaksha* in kolam script of family is converted to English as below.

"He possesses very big eyes like fruits of *Gada* tree,

He possesses very big ears which are vibrant and radiant in appearance,

On the top of the head, there are heads of cobra which look everywhere,

When *Gara Yaksha* is dancing he will cure all the illnesses and promote health"

Accordingly, the young carvers recited and practiced the *shloka* identifying the features of the devil with big eyes, big ears, decorated by cobra heads. They used the *shloka* to cut and paint the mask. The *shlokas* also indicate the purpose of cutting the mask that is to cure the illness. Word of mouth is has served the family as an important knowledge capturing tool. Folklore taught by the fathers and elders of family enabled the children to identify background stories and evolution in the knowledge relating to mask carving. Most importantly, the practice gone through their apprenticeship has enabled them to practice the smooth techniques in carving masks. Elders have inspected youngsters and pointed out the mistakes so they can capture correct even through mistakes.

Knowledge Codification: Knowledge codification, involving the conversion of tacit knowledge to explicit knowledge was limited to few sources. Even the effort made on codifying knowledge is very poor. Codified sources are considered as family secrets and are protected with high level of secrecy. Below are some sources of knowledge codification
There are few Ola leaf books available for reference written by the pioneers of their family. These books include the chanting during performances, the order of performing dances, the auspicious dates and the time to cut the *Kaduru* wood etc. Some of them are displayed at

museum in Ambalangoda and Colombo National Museum which includes *AC14- Yakun Natanawa, 7/ K 5- Yakun natanawa, Kolan natanawa* scripts. (Amarasekara, 2002)

Different families maintain *kolam* scripts inherited to the family written on special techniques relating to carving, painting etc. Recently, paper was used to write handwritten scripts replacing the Ola leaf books used by ancestors. Scripts written in ink are preserved at their mask museums.

Drawings and iconic models are available indicating size, shape, colors specified to masks, as blueprints. Blueprints are referred by the young craftsmen to get a deep insight about each mask. A collection of blueprints is maintained by the museum.

Other than these specific sources, there are scholars who have written books in Sinhala and English Language about mask carving referring to the case organization and industry. The current owners of the organization have taken effort to create a knowledge repository by establishing a small library to maintain the valuable written sources inherited by the family. They also have adapted to modern technology by maintaining their own website as well.

Forgetting and Unlearning Knowledge: It is evident of massive forgetting and unlearning in this organization which has hindered the progression as a learning organization. The organizational forgetting can be visible in terms of memory loss, failure to capture, unlearning, avoiding bad habits (De Hollan & Philips, 2004).

At premature stages of the organization, they relied upon tacit knowledge of the key person of the generation. With the demise of these key persons from generation to generation; a significant set of tacit knowledge was lost, as a form of memory loss. Memory loss also occurs when the knowledge is used infrequently. At present, the key person of the current generation has stepped into several other businesses apart from mask carving; due to financial difficulties. Because of his active participation in other businesses he is unable to fully commit to mask carving, where a significant knowledge is lost due to infrequent use of knowledge.

Present generation lacks the use of knowledge due to inability to carry out used, informal, and un-codified work routines as they lead a modern life style. It is doubtful as to whether the new generation has adequate time to master the art of masks, and acquire the complete

knowledge from their father. On the other hand, only a very few are given permission to access the Ola leaf books resulting memory loss.

As demonstrated, indigenous knowledge is predominantly tacit, highly personal and difficult to diffuse. Quality of the masks was mainly determined by the experience of the craftsperson and experience. Indigenous knowledge can be captured, but how to capture experience is questionable. Even in the current context, where Information and Communication Technology (ICT) is very popular and easily accessible, the use of modern KM techniques were on the very basic infantry level as they have very less concern about the use of ICT to preserve and manage their knowledge, in overall attributing to; failure to capture.

With the commercialization of the traditional masks art, several aspects have been unlearnt in order to cope up more advantageously with commercialization. In earlier generations, auspicious times and specific days were looked upon before logging *Kaduru* to carve the masks. But at present, log dealers supply the logs necessary for masks and since its cost efficient, convenience and quality assured, current generation is in the process of unlearning traditional logging techniques. Also earlier generations used natural colors extracted from the nature from trees, leaves, soil etc., but those colors were not long lasting. So the current generation is using artificial paints so the quality and durability of the masks are enhanced. Currently, the main buyers of masks are foreign customers. They highly prefer masks carved with the traditional tools, equipment, smoothing techniques utilizing hands. Even though modern machinery is available, intentionally they have been avoiding the use of new knowledge, as a form of avoiding bad habits; to protect their target customer segment.

Knowledge Sharing: Knowledge sharing is the activity through which knowledge is exchanged among people. When considering the factors shaping people's attitudes to share knowledge, several factors can be identified.

The knowledge sharing process in mask carving has passed on within the family from father to son in early days, which is very affective personal based relationship. They have not shared their knowledge with anyone outside the family and they were very specific on passing their knowledge to their children within the family to protect the uniqueness and the identity of the family.

At the amidst of commercialization of the mask industry, employer-employee relationships have emerged based on competency. A limited knowledge of the *gurus* is passed on to their employees as how to do carving of masks, painting of masks etc.

Trust is a vital factor which shaped the knowledge sharing practice. Companion trust is visible when passing the father's knowledge to the son. There were no issues of loyalty, but when passing the knowledge to someone outside the family that person needed to win the trust of the *gurus*. Competency trust is gained by master where he observes how the student is doing the carving, to ensure that he has the competency of learning the skills and then only he will share his knowledge with the student. Commitment trust, is seen where master observes how committed the student is to learn the skills and his passion to decide whether to pass the knowledge to the student or not.

Group identity is another factor which shapes knowledge sharing. There are several famous families in the mask industry who have encouraged knowledge sharing within the family as groups and have created subcultures within them.

The old *gurus* used to check traits, horoscopes, astrological, pseudo-sciences aspects of the person before sharing their knowledge with him. Even when the father passed his knowledge to the sons, the horoscopes were checked to select the most rightful son with the expected skills and competencies.

Organizational culture plays an important role in the creation, sharing and use of knowledge. The indigenous sector of Sri Lanka is characterized by an individualistic culture, where the organizations hesitate to become collective as they fear of losing their competitive advantage. Within this culture, the teacher is considered as a noble person and treated with divinity. The instructions or the teachings are properly followed by the students.

Every task they complete is directly related to the religion. For an instance, before starting any new activity they would engage in religious activities such as worshipping Lord Buddha, and once a person starts his career in this field he would dedicate his entire life to this culture which is one of the main reasons for the perpetuation of culture.

Salient leadership characteristics were present within key personals; among each generation. Some key persons were charismatic leaders, whom were capable to inspire followers and build up devotion in them, where even today his followers respects and speaks about their unique character with pride. In an instance; such a leader with charismatic characteristics took a step to change the course of traditional mask dancing art, where he took an initiative to bring females to the mask dancing by conducting a traditional dancing recital featuring his own two daughters, at a time where female party was not allowed to dance in public and this initiative laid the foundation to share the knowledge of dancing arts among females.

Human resource management practices also facilitated knowledge sharing. The work was designed in such a way that the employees were divided into different groups and assigned tasks to each group. The knowledge required to complete the tasks were also given specifically to the members of the group. There is a specific procedure when selecting staff, where a piece of wood is given to candidates to carve and leader thoroughly observes to select the best candidate. Upon selection; the candidate is provided one year training and after the training, the employee is continuously evaluated and knowledge is shared to enrich his skills.

Knowledge sharing is very important to retain and protect the knowledge of the mask industry especially because the codification of knowledge is limited, which is a major limitation of knowledge sharing.

Suggestions to Improve KM Practices: In the previous sections, we demonstrated the KM practices of the case study organization. The historical tradition of mask carving gradually was commercialized and the mask became a "commodity" which was sold in the market. Thus, due to the process of massification, the valuable elements of tacit knowledge were modernized, leading to forgetting the key elements of tacit knowledge. As the leading organization in mask carving industry, insights could be drawn from the case organization to form a basis for suggestions for the entire mask carving industry to improve KM practices of the industry.

Since the predominant form of knowledge is in tacit form, it is important to start codifying the important elements of knowledge. ICT and knowledge databases could be used to facilitate KM practice of systematically capturing, codifying and preserving the valuable

components of mask carving industry. Preservation media such as films, documentaries, storytelling could also facilitate to document the tacit knowledge.

Latest scanning technologies could be used to digitize the knowledge in Ola leaf books and blueprints before they deteriorate with time. Government and other responsible authorities need to recognize the importance of preserving this unique knowledge and establish traditional knowledge digital libraries to store country's traditional knowledge and explore ways in which we can introduce intellectual property rights to the field of indigenous knowledge.

Despite the practice of hoarding the knowledge, for the progression of the industry it is important that different families contribute to the knowledge databases. Brainstorming would be beneficial to fill the gaps in the existing knowledge where, key persons of the current generation should get together, brainstorm and share the knowledge with the next generation inheritors.

On the other hand, indigenous knowledge with regard to mask carving industry is sadly diminishing over time mainly due to commercialization, where due to insufficient profits, key persons of current generation shifting focus to new businesses. So, government and other responsible authorities need to uplift profits in the mask industry by linking with tourism industry and promoting country wide, where the key persons of mask industry will remain fully focused on the mask industry avoiding any knowledge loses. Incentives and infrastructure provision to the industry is an urgent requirement to uplift the quality of lives of the traditional artists to ensure they remain in the industry.

CONCLUSION

Every country possesses its own historically developed indigenous knowledge. Indigenous knowledge will enable a country to prosper increasing the quality of life of local people. Many countries pursue to effectively participate in the global knowledge economy utilizing knowledge as a strategic asset. In doing so, it is important to understand the nature of indigenous organizations and indigenous knowledge.

KM techniques and tools will enable us to understand the nature of knowledge, knowledge creation, knowledge capturing, knowledge codification, knowledge sharing, and knowledge

forgetting in indigenous industries. Through this article, we have attempted to demonstrate few important aspects in the KM practices of indigenous mask carving industry. We intended to demonstrate the important and valuable knowledge elements in the industry which demands to be preserved and build.

Knowledge creation process is predominantly based on tacit knowledge where practice and experience was superior. Similarly, knowledge capturing tools were also based on practice where observations, ceremonial chanting, word of mouth, folklore, apprenticeship was utilized. Ola leaf books, blueprints, *kolam* scripts and few other scholarly books codify explicit knowledge in the industry. Knowledge sharing practices were shaped by the factors including tight relationships with father-son, employee-employer relationship, trust, organization culture, personality, group identity, nature of leadership.

Progression of the industry is deteriorated by the predominant form of tacit knowledge, competency trap, unwillingness to adopt new techniques, the effect of commercialization, knowledge forgetting and, knowledge hoarding. To overcome the barriers, ICT, KM databases, latest scanning technologies, preservation media, brainstorming among families, government and responsible authority intervention is required.

For future research, insights by examining the contribution of ICT tools and techniques which enable to link indigenous knowledge with web enabled knowledge repositories is important. Further, researchers could study the importance of applying the useful insights from indigenous knowledge management techniques to modern organisations. Finally, it is important that necessary steps are taken before important elements of indigenous knowledge are irretrievably lost.

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