# A Critical Review Of Knowledge Sharing In Various Industries And Organizations

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**Abstract**: Knowledge sharing has become the leading factor for a success in an organization. The ability to acquire and disseminate valuable knowledge for competing in the challenging market has raised the awareness to focus on the sharing of knowledge among employees. The nature of knowledge whether explicit or tacit has paved the way for a new dimension of method of sharing in many industries. The ability of an organization to retain and acquire new knowledge enables it to outperform and compare to others and determine its sustainability. Tacit knowledge, being the hardest to retain, requires a different way of disseminating knowledge and method of sharing within different contexts of organization. This disquisition provides an in-depth review on how tacit knowledge is retained and controlled in different contexts of industries, focusing on the organizational, group and individual levels. Several implications are obtained from this review, as such to promote the integration of organizational success and capability of organization in coping with the current technological advancement.

**Index Terms**: Knowledge management, tacit knowledge, multi industries, knowledge sharing

## 1. INTRODUCTION

Staying competitive requires any organizations to be relevant to the market needs. In every sector of industry, knowledge plays a pivotal role in ensuring that an organization stays marketable. The two spectra of knowledge, explicit and tacit knowledge, should be embraced differently by organizations. The former can be easily retrieved, transferred and found openly in company's report, minutes of meeting, etc. The latter, however, is very difficult to be transferred as it is well preserved in individual's cognitive capability. The significance of possessing current knowledge in order to stay relevant in the industries spans across organizational bodies, ranging from higher learning institute (HLI), banking sector, or even service industries. Various organizations, therefore, require knowledge. It is a need for knowledge sharing to be implemented in order to inculcate the practice of valuing knowledge at workplace. It is a well-accepted notion that knowledge sharing is able to improve organizational performance, but in most cases, the organizations fail to adapt a proper knowledge sharing (KS) process (Fauzi et al 2018; Kim et al., 2012). In many industries, an organization needs to exploit and explore novel knowledge (Curado, 2008). Exploiting knowledge refers to the involvement of KM in the organization that has the methodology and strategy in ensuring that the knowledge is diffused and transferred internally. This further opens the floodgates for pursuing and exploring knowledge that will in turn encourage the employees and staff to be innovative in creating new knowledge. The management plays a pivotal role in ensuring that the knowledge shared in their daily business is understood and practiced by all employees. Recent studies have shown that management support is an important indicator that stimulates the sharing of knowledge among employees within organizations (Fauzi et al., 2018). Giampaoli et al (2017) asserted that KM has a considerable impact on the creativity and problem solving speed. These variables thus, have direct effect on organization's performance. The authors further stressed that both knowledge and creativity are an asset for ensuring an organization's financial performance when they are used efficiently. In some service industries, having the knowledge in doing what an organization should do is very essential. Industries such as banking and information technology firms require it and in certain cases it is more useful and valuable than money (Fauzi et al 2018; Curado, 2008).

Ultimately, it is well regarded that organization needs to have up-to-date knowledge in their business model. Regardless of the industry they are in, having substantial amount of knowledge would determine their sustainability and survival. Even though having certain knowledge in hand, companies need to have people who can ensure that change can be made internally. This is the role of individuals who have the tacit knowledge in order for a company to survive in the long run. In hindsight, history has shown that organizations and companies that resist to accept knowledge and changes from having this knowledge would have collapsed with the change in time. The fall of Kodak Inc. and Nokia are exemplary in this case. At that time, they maybe knew that having considerable knowledge would ensure them to be well involved with the current market, but they have no people who have the tacit knowledge to drive them out of the financial crisis that they faced at that time. As one would expect, there would be debates on whether these companies' downfall is contributed by weak leadership and eminent customer preference, but the focus of this article is to look at how organization should make full use of knowledgeable individuals.

## 2 KNOWLEDGE SHARING

KS is a part of KM, it is used interchangeably in many literatures (Fauzi et al 2019; Sohail & Daud, 2009). KS is described as the acquiring and transferring knowledge from a central source to their recipient unit (Bircham-Connolly et al., 2005). It is also termed as understanding, experience, events and thoughts of anything in order to obtain insights and clarification on something worth inquired (Sohail & Daud, 2009). Zawawi et al. (2011) defined KS as the social interaction between different cultures which consists of knowledge exchange between co-workers, and also experience as well as skills within a workplace. Knowledge develops and changes over period of time and will keep growing as and when the knowledge is shared. The expansion


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of knowledge will have halted when people in organizations are not willing to share what they know as that knowledge is presumably important to the success of the organization. Dissemination of knowledge can either be formal and informal. It can occur individually or by a group of people. In formal KS, knowledge is shared by retrieval from organization manuals, emails or reports, while in an individual context, the employees' interaction in seminars, meetings and presentations determines the knowledge to be disseminated. On the other hand, informal knowledge sharing occurs in a situation where only few individuals are present in random places and situations such as responding to a conversation from friends or interaction in cafes and restaurants, among others. In informal KS context, a person who withholds the knowledge must be willing to choose either to share or not. KS is manifested when a person who gained the knowledge put it to good use either for making a decision or utilizing it for inventing or innovating new products, processes and systems (Darr & Kurtzberg, 2000).

### 2.1 Type of knowledge

Some types of knowledge are more valuable than others. When knowledge is able to conform to a person's job demands and able to fulfill organizational requirements, it is perceived to be valued higher than other things. Some of these valuable knowledge is known to a majority of people in a specific context while some knowledge is deeply embedded in individual's mind and needs to be shared and delivered. Literatures have suggested that knowledge is divided into three: explicit, tacit and implicit. Explicit knowledge is categorised as the knowledge that is known to all and can be easily retrieved by everyone in an organization (Girard, 2006). Individuals have no problem in sharing and disseminating explicit knowledge, as it is available in many forms that is accessible to everyone. Meanwhile, tacit and implicit knowledge are the knowledge that reside in an individual's mind. These types of knowledge are very delicate and complicated to manage, as it is the person who possesses it needs to share it in order to be known to someone else. When a person possessing the tacit and implicit knowledge refuses to share, it becomes very intricate and challenging for an organization to disseminate that knowledge (Jolaee et al., 2014). The significant difference of tacit and implicit knowledge is the way it is disseminated. When knowledge has not been articulated and cannot be articulated, it is called tacit knowledge, while the one that can be articulated is implicit (Nickols, 2010). This implies that tacit knowledge is difficult to acquire, especially when an organization possessing it has the edge over other competitors in any industries. Individuals who have specific tacit knowledge are considered valuable assets and organization would do anything to retain them for the benefits of the organization's excellence. Swart and Kinnie (2003) categorised tacit knowledge into two. The first is practice-based tacit knowledge. The culture in organization drives the sharing of knowledge process. To illustrate, the code applied in a software, i.e. the knowing of code shortcuts and the application of the codes that can conform to customer's expectation. The second category is the technical tacit knowledge. This knowledge resides in the code initial knowledge. It is impossible to put the code on paper or capture the knowledge of those individual who created the code. It can be only shared and taught by learning through doing the process with the knower. Tacit knowledge that resides in the heart of an organization is very difficult to be transferred and delivered to other people, even within the organization itself (Sigala & Chalkiti, 2014). This gives a unique value to that organization which can help in providing certain value that their competitors can imitate or transfer. The role of tacit knowledge in KM topic is very important (Venkitachalam & Busch, 2012; Fauzi et al 2019). It is therefore depending on the scholar's avenues in respected fields to preserve and uphold the value of tacit knowledge among individuals. In some industries, there is a unique way how organizations administer and manipulate the culture of sharing tacit knowledge. Hence, the objectives of this study is to review the way tacit knowledge is shared in various industries. Some industries treat individual having specific tacit knowledge differently and act on the best way based on the nature of that industry. In order for tacit knowledge to be applied in KM system or at the organizational level, tacit knowledge must be transformed to explicit form (McAdams et al., 2007). In light of this statement, the execution of power by respective managers over employees is important in ensuring the acquisition of tacit knowledge. A holistic understanding of the tacit concept of knowledge will make an organization able to understand and have clear picture for interpreting its concept in guiding the KM initiatives in organizations (Mooradian, 2005). There are multifaceted organizations and different industries that have different methods in handling tacit knowledge. Some fields are stricter than others, for example, in banking industry where it deals with numerous customer's identity, thus making sharing rather restricted. In contrast to higher learning institutions, knowledge or information is shared more freely, even though there are some academics withhold certain knowledge to themselves. Other industries in focus in this review paper are pharmaceutical industries, hospitals, professional service firms, tourism, and construction industries. These industries are the main business sectors (but not limited) where organizations make profits. Having high stakes raked in steadily, the said industries would make the knowledge more valuable to thrive in the competitive market.

## 3 PUBLIC ADMINISTRATION

A responsive and smart government structures are needed to be able to take advantage of the public capability in interacting and collaborating in solving societal and technical problems (Gil-Garcia & Sayogo, 2016). In public administration sector, the staff are considered as the government staff. This vast general worker group consists of many different types of work that involve vast knowledge in diverse fields. Information and knowledge sharing in government agencies are very important in the new technological era. The term government to government (G2G) sharing has been on the rise in catering for the need to react for maintaining a country's peace and harmony. This includes threats from criminal activities, terrorist groups and other illegal activities (Fan et al., 2014). The information shared also caters for the law enforcement agencies, health care, geographical information, and development of economic and public education (Wenjing, 2011). PA has to face intense competition in delivering the best service due to the availability of alternatives service from the private sectors (Amayah, 2013). The private sector service in some circumstances has better service and products, thus attracting greater attention from the general public and customers. The PA revolves around constructing, restricting and implementing new policies from the ruling government. PA

must acquire feedback and views from the private sectors in implementing the best method from the policies that have been authorized. Failure in differentiating the substance between the public and private sector may lead to dismal performance in new policies implementation (Mergel & Desouza, 2013). In another perspective, the operating budget of the PA service is comparatively lower than the private sector. This has led to the sourcing of knowledge in innovative and low cost solutions to any incoming problems in public sector. Globally, the different way and specific policies in administration in each country will determine the knowledge being disseminated. Sometimes it depends on the judicial constitution and context, which has a substantial effect on the way the knowledge is managed. In some countries, the government staff are accountable for different work and duties that are not within their expertise and background. Hence, the capability of the workers cannot be fully achieved and thus affecting the flow of knowledge in any governmental organizations. There are different barriers to KS in the public administration. Yao et al. (2007) identified this in China where the culture there prevents knowledge sharing in any way, shape, or form. He also asserted that PA is lagging behind in utilizing KM as the tool in ensuring that the public servant can make full use of the knowledge that is readily available. The knowledge is within easy reach but there is no proper system that manages and facilitates the PA staff to deliver to the general public. It can be contributed by the lack of competition or need for improvement and little reward for employees. Tuan (2016) delineated that public servant attained their job through relationship. Even though this is not generalised to many countries, some have practiced this since jobs in government sector in some countries are difficult. The KS in this kind of context is rather difficult to be disseminated to begin with. Gil-Garcia and Sayogo (2016) has identified several barriers that hinder knowledge and information sharing among government agencies. These include lack of technical compatibility, lack of political support and financial instability. Government agencies in some countries are complacent by perceiving that everything is granted to them and that their job security is indeed guaranteed. They perceived that the government sectors and agencies are provided by the country, thus the working culture is rather pessimistic and inefficacious. In some countries, there is a preconceived notion that government workers are lazier than workers in private sectors. Although some may believe that to be true, there are studies that proved government workers are more productive than private sector counterparts especially in developed countries (Frank & Lewis, 2004). Whatever the perception is, government workers should incorporate good working cultures and integrate KS in day to day activities.

## 4 HIGHER LEARNING INSTITUTIONS

In HLI context, KS is viewed as the exchanging of new and previous knowledge which involves the interaction among varieties of cultures that can practice best method and attain high level of sustainability (Tan & Ramayah, 2014). Academics have discovered new information and knowledge by involving in extensive research activities. From the discovery of their research, they extend it to teaching and sharing in various platforms such as seminars, colloquiums and conferences to disseminate the knowledge to other academics in particular and to general public at large. HLI competitiveness is developed and recognized by these activities in which HLIs are regarded as the highest place where knowledge is shared, distributed, and valued. The foundation of KM in HLI is the interaction and knowledge circulation through the members of the faculty together and indirect involvement with the community as a whole (Howell & Annansingh, 2013). The KS initiatives sometimes are stalled in HLI due to the few mindsets that KS is a way of letting go of one's expertise and powers to their competitor's despite being colleagues in the same institution (Hislop, 2009). Some academics are reluctant to share what they know because of the notion of KS is akin to giving away something valuable despite being the intangible nature of knowledge. It is considered as valuable asset that is accumulated over time just like monetary value as tangible products. According to Chin et al. (2014), academics favour receiving knowledge from others more than sharing it with others. This is the challenge in HLIs, where knowledge is not being shared freely as opposed to the fundamental objectives of the existence of HLI. Reputation of HLI would reach the pinnacle of aspiration of a country when academics freely and willingly share more knowledge than preferring to only receive it. Inevitably, it is imperative in HLI context that proper KM can be enhanced by distributing and acquiring knowledge among academics. In some countries, KM is developed by providing research grants and reward schemes to academics by the ruling government (Sohail & Daud, 2009). This is one of the initiatives that can further encourage and stimulate KS activities in HLIs.

## 5 BANKING

Banking is not only business in making money, but also a business of acquiring information (Chatzoglou & Vraimaki, 2009). Success in banking sectors is based on the excellent understanding of the managers towards customer's needs and altogether diffusing and exploiting the knowledge to the bank's benefits and wellbeing. Bank employees are motivated by intrinsic and extrinsic factors to share knowledge (Tan et al., 2010). Trust, learning and behaviors are the intrinsic factors while organization culture, reward system and information technology are the extrinsic factors. According to Kubo et al. (2001), commercial banks have few options in providing new financial products and scarcely different activities and alternatives due to the regulation and the government protection on banks. The central banks have their own stipulated regulation according to a countries act and federal constitution to protect a country's fiscal deficit and maintain growth and economic momentum. Banks are not fully independent to simply introduce new products and service without the approval of the central banks. This system might have differences in different countries based on social context and demographic situation. One of the important factors for sharing knowledge in bank is the organization factor (Tan et al., 2010). It plays an important factor of success by supporting the banking culture that depends on the banks business model and location of the bank. Organization cultures shape the formal and informal actions of individuals in the bank, and determine the type of individuals that can integrate into the organization. This will altogether affect the way individual interacts inside or outside their organization. Different banks have their own branding and name they boast, of which are known globally, from few hundreds to few thousands of branches worldwide. The basic of the banking organization culture embedded from the beginning of the bank establishment has grown specific cultures that are developed

from the first generation of the employees. The tight regulations in the banking sector require commercial banks to be very careful in sharing what they know in order to protect a bank confidentiality which might leak to other parties that have bad intention in hacking banking private and confidential data that could give monetary profits to them. Due to the potential of criminal activities towards banking security system, knowledge especially tacit, is well kept by key personnel that are in charge of the network and central data. Banks are very competitive among themselves. Availability to have unique knowledge in this industry would ensure their sustainability in perpetuity. This requires them to innovate and change their business strategy according to the market needs. Curado (2008) stated that even though banks portray innovation image according to the pace of the current market, the majority of the innovation happens in the commercial department. The marketing process in disseminating their product requires the department to always keep track with customers' needs.

## 6 PHARMACEUTICAL

Pharmaceutical industry has several distinct characteristics compared to other industries. It has strict regulatory environment, lengthy cycles development, high capital cost and high risks in the research and development process (Lilleoere & Hansen, 2011). The average time taken for the discovery of new drugs would take about 8-10 years (Ganguli, 2003). Therefore, the main focus of this industry is to minimize the time to market because of other related issues for the marketing time. Cost and novelty would be one of the advantages if the industry would be able to reduce the time. To stay competitive, pharmaceutical companies have shifted towards optimizing current product portfolios and developing innovation practices (Tranter, 2000), focusing on life cycle management and solving technical problems related to time-to-market. According to Ingelgard et al. (2002), in the pharmaceutical industry, company culture, competency and readily available skills form a dynamic learning capability. Furthermore, the structure of organizations, incentives learning, opportunities for changes and leadership have subsequent influence in learning capability. In this pharmaceutical industry context, KS is believed to have developed new knowledge, by enhancing innovation of new products at faster pace (Lilleoere & Hansen, 2011). Nevertheless, KS in this industry is easy with competition among companies, which puts forth the notion that whoever found the knowledge first, makes the most profit out of it. It is highly dependent on the context and setting, beliefs of individual, different actions and various personal practices involved. The perspectives of understanding and acknowledgment of individual differences in KS is a key for R&D in organizations. Therefore, unleashing the KS enablers and hindrance of diversify professional groups and further learning to apply the R&D in pharmaceutical is important to develop innovative performance. According to DiMasi et al. (2016), the average cost for developing new biological compound of drugs is estimated to be at $1395. Post R&D approval, the cost escalates to $2870 (rate in the year 2013). Having stiff competition in this industry, pharmaceutical companies would try their best in retaining and withholding their tacit knowledge based on the research conducted. They would have to invest in acquiring the best new drug and medication. This in turn would make knowledge and information hard to come by among the companies. Hence, tacit knowledge clearly will have no place for it to be shared freely.

## 7 HOSPITAL

Doctors and physicians are knowledge-based individuals and a professional group in hospitals. The knowledge that they have is the most essential component to hospitals and deemed vital to patients' well-being (Ryu et al., 2003). The expertise of doctors in the quality of special clinical practices and procedures is the main factor for the conformance of medical services to patients. The need for health practitioners in hospital is imperative due to newly found diseases and ailments which require doctors and researchers alike to share and find solutions and medicines to the new breeds of bacteria and virus that have emerged in today's world. By sharing what the health practitioners know, common diseases can be cured and deadly diseases can be deterred. This in turn will benefit the people and the nation as a whole. The use of technology is very important to track the development of the new diseases that requires health practitioners to be at the tip of their fingers in searching relevant information and knowledge pertaining to their individual patient case. In a study by Gastaldi et al. (2012), it is found that using electronically medical record (EMR) enables hospital to be well managed in not only increasing the ability to exploit current knowledge with the founding of new knowledge but also increasing the hospital performance. The use of technology in hospital will increase a country's health care services. The EMR serves as platform for improving knowledge asset dynamics and having rigorous understanding on adapting the strategies to integrate with hospital to improve the performance of EMR in facilitating the exploration and exploitation of knowledge. Apart from doctors, other health care providers including nurses, pharmacists, radiologists and others that are hospital based employees must openly share their knowledge. One should not keep their knowledge to themselves, as withholding knowledge in this industry would not benefit the community. The specialists on the other hand, have been equipped with a niche knowledge in their field, for example, pediatrics specialists, should always communicate with their subordinates and peers on the current development on the information garnered from patients. As specialists would always meet and have their own COP outside the place they work, the current information they receive should always be disseminated at their workplace. The health care business is based on knowledge intensive (Kim et al., 2012). Mistakes are prone to happen, and practitioners are expected to learn from failure and improve themselves from time to time. In most cases, patients do not recognise the errors made by doctors or nurses. Mistakes and errors are not shown to patients due to possibility of blame, report, legal lawsuit, and public humiliation. Thus, error will not be revealed at all as there can be good and bad outcomes from this. The former will result in practitioners be more diligent and improve themselves from the mistake they made. While the latter will pose bad consequences when serious injury and fatality happen due to the mistake, particularly when the doctors thought it is fairly acceptable to make mistake. Therefore, the knowledge within this field should be developed and refreshed from time to time.

## 8 PROFESSIONAL SERVICE FIRM

Professional service firm (PSF) includes organization providing service in engineering, advertising, consulting, accounting, law firms, etc. It values the foundation of the knowledge, where it lies in the employees that provide essential contribution to a firm (Beaverstock, 2004). The knowledge is delivered by interpersonal relationship, task related work and social interaction. Firms achieve values through educated employees, having professional degrees and accreditation, possessing explicit and tacit personalized knowledge (Løwendahl et al., 2001). The important components of professional firm are the knowledge, networking, performance and skills embodied and deeply rooted in the workers and staffs. The asset of internationally recognized partners is deemed the most valued in the firm where through these personnel, a firm is able to acquire contracts that can be highly profitable and rewarding.As for law firms, the knowledge mostly revolves around explicit knowledge. Everyone in this industry basically has the same knowledge on what they are doing. For example, in conveyancing and litigation, every lawyer and partner has the same knowledge and information from court information, documentation and project that they are involved in. None would have extra knowledge or require new knowledge in dealing with the current legal cases. New knowledge is not needed to be invented, rather, it depends on the fact of previous cases and how they relate it to the context of current cases. As reported by Bjornson and Dingsoyr (2008), software engineering firm adapted the agile technologies in the later part of the last decade in order to manage the tacit knowledge. In engineering sector, particularly in software and information technology-related firms, the emphasis is placed on how to manage knowledge in the context of learning software organization. This organization is defined as fostering the experience change by continuous learning culture (Feldmann & Althoff, 2001). KM in software engineering is more based on aspect of behavior and technocratic aspects with few studies related to empirical studies. Out of the empirical studies in KM of software engineering, the majority are case studies (Bjornson & Dingsoyr, 2008).

## 9 TOURISM INDUSTRY

The literature has found that there are limited studies on KM in tourism industry, justifying that only a number of tourism companies are professionally managing their knowledge (Braun & Hollick, 2006; Zehrer, 2011) . The world total GDP of tourism in the year 2014 was USD 7.58 trillion (9.8% of the world GDP) and the forecast in the year 2015 is to be risen by 3.7% in 2015 and further 3.8% per annum to USD 11.38 trillion (10.5% of GDP) in 2025 (World Travel and Tourism Council, 2015). The mass of the monetary value from acquiring the right technique and method in revealing the best practice in tourism industry is very much important to be sustainable in order to maintain a country economic development. This reveals the need of extending the KS in tourism industry based on the fact that tourism is one of the country's highest contributors to a country gross domestic product. The tourism industry changes rapidly within a short period of time. Customers' interest and preference depend on the organization's ability to attract and promote their capability in providing the best hospitality service. According to Nieves and Segarra-Cipres (2015), innovation is needed in this industry even though there are risks involved and no assurance in success. The ability to adapt according to the environment will enable companies to have the correct strategy and method in knowing the current need of customers. Companies within this industry need to explore and find new knowledge that caters for the need of the customers. In most cases, explicit knowledge is readily available from the feedback of customers that can be attained from social networking sites and platforms. Tourists would be the best promoting tools as they would recommend the best experience when they go on holiday. As for tacit knowledge, organization would have to invest on what the tourists' future needs are when they are on holiday. Hence, the knowledge based on the tourism industry requires tourists' own creativity and innovation capability in providing the best services. One of the challenge of KM in the industry is corresponding not to the organization, but to the micro level of KM where the destinations are the main focus of any tourism aspects (Zehrer, 2011). As pointed out by Gretzel and Fesenmaier (2004), knowledge based information system at micro destination level integrates different levels of knowledge. They also pointed out the adopting of the technology usually takes place in three stages and is interrelated with experience that the organizations have in KM. There are basically three categories of tourist experiences: planning process, the actual trip and memories of the particular trip (Larsen, 2007). Tourism is one of the major industries that contributes to a country's gross domestic products (GDP). Many companies and organization are involved in getting the chunk of the pie from the industry profitable opportunities. There are many opportunities that can be acquired by having the correct platform that an organization can benefit from. The result in KS in tourism enables operators to update and adapt the best practice to serve the tourists and having direct links to online resources to keep them in line with the current trends and development in the industry (Braun & Hollick, 2006). With the contest of securing customer for choosing a destination with an agency, knowledge on giving the best service possible is crucial in this industry. This is the role of social media in disseminating information to potential customers (Nezakati et al., 2015). Every player in tourism industry should adopt and adapt the best application in using social media that are famous and mostly used by users. Knowledge in acquiring the best practice would entitle business owners and entrepreneurs to be up to date in generating the current preference of the market.

## 10 CONSTRUCTION INDUSTRY

The nature in construction industry is on project based, where it fundamentally relies on contracts and specification. Several companies involve in forming multidisciplinary organization based on expertise in specific nature of works. When a project ends, the contracts are terminated between the companies and moved on to other projects (Zhang & Ng, 2012). The knowledge transfer among the construction companies is known to the general public. Knowledge on current building technology, project management and human resources should be enhanced and developed in ensuring that construction development is in par with the need and requirement of the market. The issues that can be taken into account within this industry should be met within the context of customer's specifications, profit margin and environmental impact aspect. The tacit knowledge in construction industry is however not that important. There is no specific knowledge that is uniquely owned by a specific company. Rather, the difference in managing construction based companies is by having small and huge capital. Involving in mega size project that span from a year to several years requires company to have substantial monetary size for capital expenditures. This industry is

very competitive and hard to come by especially in this fast pace of globalization. Companies have to compete to operate due to knowledge economy, trade liberalization, deregulation and markets internationalization (Abu Bakar et al., 2016). Most companies need to make profit in the construction industry. The short term goals would always be in maximizing profits. This is essential because, construction companies need huge amount of money to keep them in business for good financial flow. Any company that could not make profits will be in the state of bankruptcy. While in the long run, companies need to have substantial growth and expansion. This industry is very knowledge intensive and requires in-depth experience of the ins and outs of business (Wu et al, 2012). While Issa and Haddad (2008) had argued that information technology as an important platform for KS, it is factual that a recent platform is highly anticipated that IT in the current context of construction industry. For companies involving in medium to large project that involve million or dollars, a mechanism of communication via the knowledge management system (KMS) is needed. One way is by mean of community of practice (COPs). It is meant for knowledge sharing, retrieval, generation, and storing. This field has to face lot of problem solving that will need to be solved fast and accurately. These problem solving is a various matter pertaining to project management, engineering and architectural design, feasibility studies and even at the initial phase of proposal presentation to the awarding bodies. Individuals who are within these construction companies need to be equipped with considerable knowledge and highly trained experience in problem solving. The individuals also need to be able to transfer their knowledge to their subordinates, clients and partners from other contractors. With this, the COPs would be a facilitation for organization to accomplish certain deadline and goals within the estimated time. Completing project within the stipulated time is an essential factor in determining the sustainability of a construction company. Delaying and failing to meet deadline would end in disastrous monetary impact and tarnish the reputation of a company in delivering end product to potential customers. This is more prevalent in completing government awarded projects and tenders.

## 11 OTHER INDUSTRIES

The aerospace industry is considered as a knowledge intensive industry (Wai Tat & Hae, 2007; Fauzi et al 2019). Despite being the advanced and high-end technology industry, concern has been raised on the reliability and availability of technology and knowledge-based intensive regarding the aerospace industry. This industry requires in depth knowledge on the specific area that requires niche skills. This skills and knowledge would incur millions of monetary expenses. The equipment used in this industry would have to be supported by strong financial fund which eventually will involve the government monetary support. On the other hand, in the military aspect, the need to understand the specific needs of the military specification and requirements would enable a better expectations and demand of knowledge required (Hernandez et al., 2017). The military is more focused on the human planning and cognition as KM process for goal directed constructive approach (Philp & Martin, 2009). The way knowledge is converged within the military industry is from the highest ranked officer i.e. the commanders who have to think fast in order to achieve anticipated goals within a short span of time. Knowledge is easily distributed internally as officers and cadets must follow orders from their superiors. Once an order is directed, it is compulsory for every military personnel to follow and ensure that everything is done according to the command given. Hence, once knowledge is shared, everyone should know and implement it within the organization.

## 12 DISCUSSION

Several factors made the current market more competitive than before have changed the corporate landscape and route to achieve success in the business world drastically (Zehrer, 2011). Complexity due to reduced entry of the market barriers, escalated competition, reduced product life cycles and increasing risk are among the challenges faced by the most of the industries. This encompasses the right and suitable knowledge within a specific industry to enable companies and organizations to compete at the highest level. Large companies are in the position they are now due to excellent management of knowledge within their capabilities. Failing to grasp the need to control knowledge, especially tacit knowledge, will result in noncompliance of the market and customer's needs. The tacit knowledge is dealt differently in different industries. Due to the competitiveness of several industries, tacit knowledge is shared carefully and even secretly. Most organizations do not want the knowledge they possess to leak or even be shared to their competitors. This is due to confidential matters that risks and jeopardises the professional conduct in the majority of the industry. In some industries, the employees even have to make pledge or sign oath not to disclose company's tacit knowledge or information. The public will know the tacit knowledge of a company once the product has been launched or when the company has already made millions of profits and success in their business. This is a verification of the saying 'knowledge is power'.

### 12.1 Implicit knowledge

While every industry does share the explicit knowledge that are known to public, the implicit knowledge is difficult to be shared openly. It is related to organization policies and regulations. However, there are instances where implicit knowledge can be shared openly by individuals. For instance, physicians do share what they know openly. They have nothing to lose by sharing their knowledge because, the recognition they receive cannot be replicated, due to the extensive and rigorous process in obtaining doctor's license that will be approved by a country's medical board. Meanwhile, for pharmaceutical companies, sharing their hard-earned knowledge on certain medication-related products would jeopardise their companies in competing with others that may replicate the knowledge and reverse-engineer their products. The reality that is happening is that, when certain medications are replicated, some of the mixtures and contents are altered and improved which is considered legal as the action does not completely copy the original manufacturer. Hence, according to certain industries, the way implicit knowledge is shared depends on the confidentiality of the knowledge that can harm or worry the knowledge giver within the business competition aspect.

### 12.2 Cost of knowledge

KS would cost employers as compared to other behavior within organization. Time, money and effort would be wasted on the specialized knowledge owned by certain individuals (Lee et al., 2017). The variable of perceived cost is an interesting factor that should be further studied on to evaluate how employees perceive that their KS behavior would affect their position in an organization. Different industries would embrace the cost of sharing differently according to the context and environment given. In higher learning institution, a professor would want to

share their expertise on their subject matter, thus paving the way for implicit knowledge to be disseminated to the masses. By engaging in this behavior, the academia world would have recognised the academics who willingly share their knowledge (Fauzi et al., 2018). In contrast, a staff in pharmaceutical industry would have to withhold their knowledge on the discovery of a new product. By sharing unintelligently, it would jeopardise the company's business and their competitiveness would be at stake. This is due to the nature of pharmaceutical industry that is more profit oriented in nature. Company that has the edge in producing cutting-edge and high-end product would suffice on its own in the knowledge economy. This is similar to banking sector where ideas and new product should not be released to public until it has been launched. New ideas within the banking sector would determine the end product that is preferable to the current market needs and customer requirements. While for tourism-based company, they are more open in sharing their knowledge on certain aspect of their business model. This is because, the unique trait of tourism business enables the industry to expose everything that is available. The uniqueness of a business model cannot be easily replicated. Most tourism companies have the destination package that are nearly possible to be imitated. This has made this industry to be more open where knowledge and information are easily accessible to the public. Hence, the notion of tacit knowledge is nearly negligible.

## 4 CONCLUSION

It is inevitable that having unique and specific knowledge is a source of strength for every organization in every industry. Some types of knowledge is are worth more in certain industries and can benefit the beholders over other competitors. The need to have a structured KM and managing it should be tailored within a specific industry and should not be treated the same. How KM is managed in in one industry should not be compared directly to other industries as the culture and environment are totally different. KM in HLIs is supposed to be shared freely without any barrier where professors teach and disseminate newly-found knowledge. This is different in banking and pharmaceutical industries where knowledge is withheld until the time is right as it involves the patent and customer's loyalty that can affect the business aspect. Explicit knowledge or the commonly informed knowledge may be easily articulated among employees, subsidiaries and even competitors. While tacit knowledge is the knowledge that is hard to be shared as it lies within the beholders' cognitive capability. It is stored and can only be known when it is shared willingly. Even if it is shared, the component and understanding of the knowledge might not be the same as good as the knowledge of the beholder. To encapsulate, different industries require the best method in managing knowledge that can conform to the present needs and sometimes be considered as the current trend. Organizations that are able to manage the knowledge in a structured and systematic manner would bear the fruit of the effort even though some capital expenditure have to be invested. For example, knowledge on the industrial revolution 4.0, big data analytics, cloud computing are among the knowledge that every organization and industry should focus on and implement within the management structure. Having grasped on these various types of knowledge would ensure the cutting-edge technology, manpower and management of tacit knowledge at their fingertips

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