The arts of Knowledge Transfer in Virtual Organization: Tacit Knowledge

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Summary

Knowledge transfer in organization has great benefits on organization performances. However since the environment changed recently, the structure of organization also changed from a firm organization into virtual organization. The operation and functions of new form organization changed and depends on the Information Communication Technology (ICT). The increased use of ICT in virtual organization is to bridge the distance gap between people works within these types of organizations. Since the gap was connected, the transfer of knowledge among workers could be considered as an easier and also difficult process to be transferred. The kind of knowledge transfer could be varied depends on the types of knowledge. The purpose of this paper is to explore the arts of transferring process by virtual organization workers either the manipulation of social media been used by them as an effective medium or other medium are flexible used by workers. The paper also suggests the ideas to reduce barriers and facilitate transfer in virtual organization.

Keywords:
Knowledge transfer, Virtual organization, ICT, Tacit knowledge

1. Introduction

"We now live in the age of knowledge. Knowledge as we all know means power and power is one form of success. Therefore knowledge means success, success in any field of human endeavor" (Mahathir Mohamad, 2006). As the world moves towards "Knowledge-based economy", knowledge is very important because it's one of the organization's assets that must be concerned by all organizations (Mohd Sazili Shahibi , 2016). In today's dynamic global economy, according to the statement, knowledge has become critical and people more intend to use knowledge as strategic weapon since people with knowledge means success and success depends on the knowledge utilization. In order to strive in business environment, organizations must be changed into new forms of structure, operations, management and some of the organization cultures also changed. The communication also changed by the time organizations and people are appreciated the knowledge and utilize the knowledge as critical assets.

Malaysia especially the organizations carry out initiatives on appreciating the knowledge have within their organizations especially the tacit and explicit knowledge of people in organizations. Successes of organizations depends on the accomplishment of knowledge utilization and moreover, the successful of Knowledge Management (KM) in organizations ensures strive of organizations. Goh (2002) stated that researchers in knowledge management contend that a firm's competitive advantage depends on its knowledge meanwhile, according to Prusak (1997 knowledge refers to what it knows which means how it uses what it knows and how fast it can know something new. Since the new organizations are in the form of virtual, it is critical to have an effective knowledge management and it includes the KM elements. Nonaka (1994) suggests that one of the most important aspects of knowledge management is the transfer of knowledge from one set of individuals to another (Sarker, 2003).

Nonaka (1994) and his associates have expounded on how learning making exercises can bring about development, the way to survival for most associations working in a situation of worldwide rivalry for items and administrations (Goh, 2002). As the knowledge creating activities encourage the innovations, it is similar to the concept of new organization form. The virtual organizations are developed from the idea of innovations. Virtual itself is innovation. The transformation of traditional organization into virtual form needs the innovation elements and technology infrastructure to strive. Knowledge management has many contexts and parameters including knowledge creation, managing personnel and processes, storage of knowledge, retrieval processes and central to all is transfer (Ledford & Berge, 2008). Knowledge can be categorized based on two which is tacit and explicit knowledge. Explicit in nature refers to the accessible knowledge in a form of accessible format which is printable format. However, tacit in nature are in a

way of inaccessible of format which in a form of fluidly in nature in a form of people ideas, thought, expression, motions and occasionally in people minds'. The transfer of tacit knowledge is difficult to justify.

2. Knowledge Transfer – Concept

From the business point of view, an association's prosperity, as it were, relies on upon its capacity to influence information and produce esteem from its learning assets (Moshari, 2013). In organizations, knowledge is stored and organized in organizational memory where knowledge is again retrieved to be used. Thus knowledge is a part of organizational memory (Halonen, 2008). A central part in information administration is to spread and make learning available and usable inside or between picked associations (Paulin & Suneson, 2012). Knowledge transfers are one of the fundamental parts in knowledge management besides the knowledge sharing. The aims of knowledge management is to ensure the knowledge given to the right person at the right time which is accessible for everyone whom needs it within the organizations whether it is the tacit or explicit knowledge. Although some barriers complicate the process of transferring the knowledge especially the tacit, however it could be transferred if using the right tools or mechanisms. For the virtual organization, the elements of virtual organization is virtual team which deals the transferring knowledge using the virtual tools such the social networking or social media tools may facilitates the process of transferring for them.

Knowledge transfer is a fundamental process. As part of knowledge management elements, knowledge transfer is a basis and it supports the organizational learning. Knowledge transfer in physical firm or organization helps to facilitate the successful of knowledge management and knowledge transfer itself. However, it is differs if the firm are not physically located and it is in the virtually located. These forms of organizations are much more have important impact in transferring knowledge. The process could be interfered with some communication barriers. The distance could affect the transfer process by interfering the process of communication. One of the dimensions of communications is the sender and receiver and if these two been interfered thus the transferring process could be distracted.

3. The Concept of Virtual Organization

Virtual associations alludes to another hierarchical structure portrayed by a provisional or perpetual gathering of topographically scattered people, gatherings or association divisions not having a place with the same association – or whole associations that are subject to electronic correspondence for completing their generation process (Marcin & Wojciech, 2012). Mcluhan (1964) recognize how electronic communications would free many workers from the 'tyranny of place' and called such workers as 'nomads of knowledge' and warned the corporations would come to need them more than they need corporations (Gladstone, 2000).

According to Skyrme (1998), virtual organizations have 'three primary relativity dimensions' that orient the work processes and relationships amongst people working in them (Jamaliah, 2003). These are:

- Space : First dimension. Virtual organizations aggregate knowledge activities of their knowledge-workers located around the world using technology such as the internet. Knowledge workers in virtual organizations are important links to information and knowledge generated in on site locations.
- Time : Time relates to the knowledge worker to communicate and disseminate knowledge in real time.
- Structure: knowledge workers need to have superior cognitive and psychological resiliency to cope with the rapid and continuous changes in team structures, membership and agenda.

According to Cascio (2000), in virtual organizations, personnel operate at a remote distance from one another and also from their managers (Davoudi & Fartash, 2012). By means, it refers to disperse geographical working locations among company colleagues. Normally medium to be used to communicate or interact is by using the information technology. Clancy, (1994); Cooper and Muench, (2000); Lin and Lu, (2005); Hatch and Cunlife, (2006); Mihhailova et al, (2011); Holtbrugge et al, (2011), stated that virtual organization with an intensive used of information and communication technologies allowing interpersonal and inter-organizational cooperation over large distances (Manzin & Bavec, 2013). Information and

communication technologies replaced the way of interact and enables virtual organizations workers to connect to each other's although they are all located in a different locations. Workers using ICT tools to communicate over organization and different locations should not be a problem by using the suitable tools such as video conferencing, e-mail, social media applications and others. Geographical dispersion could be an issue for knowledge transfer because the virtual organizations setting is in the complex structure to be seen physically. However, it also could be beneficial to the virtual organizations itself especially the workers meanwhile the flexible working time could be achieved and workers more motivated in this flexible way or working.
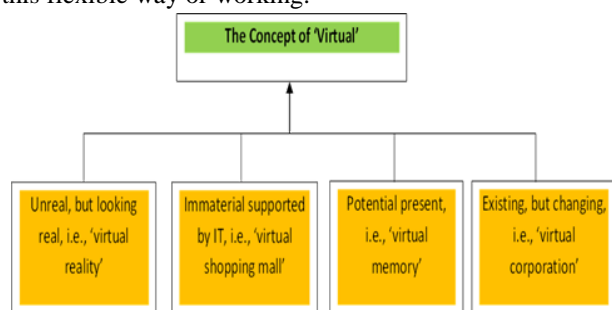

Figure 1: The concept of Virtual (Malhotra, 2000)

3.1 The Effectiveness of Knowledge Transfer in Virtual Organization – Tacit Knowledge

The successful of tacit knowledge transfer is measured by their transferring process. Previous researcher reported that there was significant factors influence on effective transfer of knowledge which is co-operative and collaborative culture (Duan, Nie & Coakes, 2010). The culture of virtual organization could be barriers or could be beneficial to the organizations. The flexible culture of environment gives opportunities to the transferring process by using the ICTs as a medium to transfer knowledge. In addition to Eby and Allen (2008), trust is important for knowledge transfer and researcher reported trust develops primarily through face-to-face interactions so traditional elements of monitoring or mentoring have to be affiliated (Hamburg, 2013). Trust, the critical factors in transferring tacit knowledge since trust factors means the willingness to give or to share the knowledge has. When workers trust the colleagues they are willing to transfer the knowledge willingly.

While Faust (2007) said that great instruments and proper IT-foundation are imperative however the most ideal path for proficient recognizable proof, exchange and advancement of information will dependably remain the person. Recent studies (Von Krogh, 2012; Bebense,

Helms & Spruit, 2011; Faraj, Jarvenpaa & Majchrzak, 2011;, Haefliger, Monteiro, Foray & Von Krogh, 2011) have highlighted the role of social network and social media in the transfer of knowledge within an organization (intra-organization) and or between different organizations (inter-organization) (Mussi, Angeloni & Faraco, 2014). The ICT or social media applications plays important roles in transferring knowledge especially in today's environement, which people rely on the social media applications to share, to create or to transfer the ideas, opinions and others related. It could be stated that when people trust others it does not really important to transfer anything by using any types of medium or tools suitable as long as the transfer process succeed.

Hence, Bloodgood, Chilton and Bloodgood IV (2014), stated that the importance of motivation and capability of the sender and the receiver in knowledge transfer success in organizations. The motivation may include the rewards or compensation whenever they transfer knowledge within organization. This may encourage workers to actively transfer the knowledge needs by others within organization. Some of organization motivate workers by giving recognition and appreciation for the workers willingness to share or transfer knowledge among workers. According to Yokoyama (2010), rewards are very strategic for retaining the best human resources (Njanja, Maina, Kibet & Njagi, 2013). Rewards seek to attract people to perform more than usual. It is the exchange of contribution between the knowledge and rewards.

Meanwhile according to Smith and Rupp (2002), communication is fundamental in encouraging knowledge transfer (Al-Alawi, Al-Marzooqi & Mohammed, 2007). Previous study highlighted that organizational context including organizational culture and climate, management support, rewards and incentives and organizational structure are one of the factors in transferring process (Paulin & Suneson, 2012). In virtual organization, the success of transferring knowledge depends on various factors and the success of it could be achieved by using the suitable methods without ignoring any factors could influence and affect the process.

4. Theoretical Framework for Tacit Knowledge Transfer in Virtual Organization
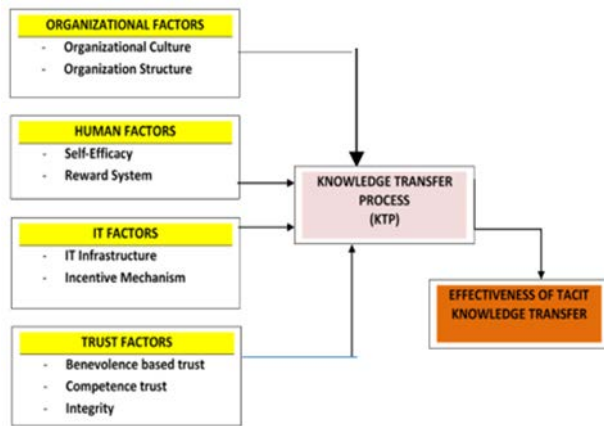

Figure 2: Suggested Theoretical Framework for Tacit knowledge transfer in Virtual Organization

As for tacit knowledge transfer most of the framework are focusing on the traditional organization, and rarely suggested for the virtual organization. As for this study, the framework suggested based on the theoretical analysis suggested from previous study and based on the variables involve. As for this study, four (4) major variables involved which are the organizational, human, information technology and trust as main variables.

4.1 Organizational factors

For organizational variable, there are two (2) listings variables and there are organizational culture and organization structure. Organizational culture plays important roles in any organization. The culture represents the nature of the organization. According to Goh (2002), culture can be an enabler of knowledge transfer. Culture is a critical factor in knowledge transfer process and culture is one of the factors in organization factors. Culture plays important roles in driven the organization operation and driven the transfer knowledge. One cultural dimension critical to knowledge transfer is co-operation and collaboration (Goh, 2002). Culture plays vital roles in transfer process and virtual organization should consider on organization culture afore any transfer process take place. Meanwhile for organization structure, failure to understand the complex structures of organization, the knowledge transfer will not take place. Wang and Zhong (2014) expressed that hierarchical structure is the premise for keeping up and working of an association which appends extraordinary significance on departmental, regulatory and work relationship between its individuals. In just about association existed in this world, the

structures helps administration to oversee and control the advantages of association whether it is capitals, individuals, IT or operations of the association. Complex structures could contribute to the failure of the organization.

4.2 Human factors

Two (2) variables involved under human factors are self-efficacy and reward systems. For self-efficacy Bandura (1997) defined it as generative capability in which cognitive, social and behavioral sub skills must organized into integrated course of action to serve innumerable purposes (Wei & Zhang, 2008). Self-efficacy is a judgment of a person on her ability, skill and competence to perform the task given by company. It is more on individual capabilities on doing the right process for the task given to achieve organizational goals. In this study, self-efficacy is needed along the trust factors in order to measure the willingness of workers to transfer their knowledge among them since according to Adler, (2002); Johannessen et al., (2001); De Long and Fahey, (2000); Gruber, (2000); Locke, (1999) examine that the different effects of both affect base and cognition based trust on employee willingness to share and use tacit knowledge none has been study yet (Holste & Fields, 2010). Self-efficacy was found to act as a moderator in the organizational culture-training transfer relationships (Simosi, 2012). Self-efficacy turn as mediator in organizational culture which involves the transfer relationships where the people relationships, communication among them are being accepted and it could be happen the transfer of knowledge among them. Meanwhile, In order to enhance the knowledge sharing, workers need rewards system that will reward them with the benefits. Such benefits organization used is the pay per performances. The members of virtual organization will have motivation to performs the works and encourage them to the effective knowledge sharing. Rewards is important in the virtual environment because of the dispersed geographically members of virtual organization being located. Without the reward there will be no motivations for them to share the knowledge they had. Rewards system is more on incentive program develop by the management to encourage the workers to share their knowledge and expertise. The geographically differences is not a barriers if they are rewarded with such incentives.

4.3 Information Technology factors

As for this variable, there are two (2) variables involved and there are IT infrastructure and Incentive mechanism. Information technology is frequently mentioned as the solution to intra – organizational knowledge transfer. It can be a good, even a necessary solution for an organization that is widely dispersed and still wants to

encourage a learning environment of information sharing (Goh, 2002). The members in a virtual organization are dependent upon information technology (IT) for the coordination of their activities (Lin & Lu, 2005). Applying advanced IT; this new organizational form is highly adaptive and well suited to changing and uncertain environments (Lin & Lu, 2005). There are two fruitful elements in learning administration ventures which are working with data framework segments the first is usage of the system innovation foundation, for example, web Lotus Notes and worldwide correspondence frameworks for compelling exchange of learning and second one is as indicated by Davenport (1998) is the foundation of an expansive data framework base taking into account desktop figuring and interchanges (Moshari, 2013). The successful of knowledge transfer is determined by the utilization of IT infrastructure and tools as mechanism. Meanwhile along with IT infrastructure the efficient in organization knowledge transfer can be obtained through institutional guarantee or incentive mechanisms (Wang & Zhong, 2014). Ardichvilli, Page and Wentling (2003) acknowledged that successful incentive mechanism is supposed to be a motivation for knowledge sharing (Chen & Hew, 2014). Incentive mechanism here refers to the virtual system or practical system used by organization to measure their staff contributed knowledge to the organization such as the coin system or badge system (Chen & Hew, 2014) used for organization to appreciate the employees contributions.

4.4 Trust factors

Essential factors of information transferring in an organization as a whole or now in the virtually environment, trust become the most important factor to be considered. Trust is a multidimensional idea by nature, it relies on upon the different field to be ordered and characterized. It is hard to characterize the idea of trust. Cognizance based trust is an objective perspective of trust and is connected with skill, capacity, obligation, trustworthiness, validity, unwavering quality and reliability. Influence based trust has more enthusiastic meanings and is identified with issues like consideration, concern, generosity, philanthropy, duty, common appreciation and others (Huotari & Iivonen, 2004). According to Mishra (1996), trust have been divided into four dimensions differs from Mayer et al in 1995 which are concern, reliability, competence and openness (Usoro, Sharratt, Tsui & Shekhar, 2007). Lee, Park, Lee and Yu (2008) conceptualize trust as having three key dimensions: integrity, competency and benevolence. Mayer et al. (1995) have defined trust as three attributes which can be based namely benevolence, integrity and ability. As for previous researcher, Mayer had been named the three attributes of trusts and be used by other researchers in

their study. It shows the constant dimensions of trust that acceptable by others. Sydow (1998); Ciancutti and Steding (2000); Scott (2000); Nooteboom (2002) mentioned that trust has several advantages, for example (Huotari & Iivonen):

- Promoting open exchange of information and knowledge and learning
- Enabling interactions between people and between organizations
- Reducing transaction costs
- Facilitating economic activities and information technological solutions
- Enabling work and collaboration both within and among organizations

According to Wittek (1999), the chance of knowledge transfer is much higher, when advice relationships are embedded in mutual trust relationships (Sijtsema & Rispens, 2003). Mayer et al., (1995) defined trust as the willingness to be vulnerable to the actions of others (Khalil, Sutanonpaiboon & Nor Hamimah, 2010). As for this study, trust in knowledge transfer can be categorized by three dimensions which are benevolence trust, competence trust and integrity trust. The dimensions are adopted from Mayer et al in 1995 which propose the dimension of trust. In an organization with a lack of trust, knowledge transfer will be relatively slow; the organization will develop very slowly and may even be eliminated in the era of knowledge economy (Wang & Zhong, 2014).

5. Conclusion

As a conclusion, to attain the optimal tacit knowledge transfer, the knowledge transfer concept and virtual organization should be considered on. The factors that pop-up through the transfer process should be considered too. The factors could be the barriers and beneficial to the transfer process and the organization. It is depend on the way the organization utilized the factors in an effective ways. The factors to successful knowledge transfer depends on the how organization can utilize the four (4) main factors been discussed above. The outstanding factors could be debated but the four (4) main factors are depending on each other. Further efforts need to be assessed by the virtual organization people in order to ensure the successful of knowledge transfer process in virtual organizations. The environment takes place are the risky environment to be measured, however the virtual organization may be defined based on the four (4) mentioned variables in this study. Knowledge is a part of

organizational memory and it could be used by others to keep strive in today's competitive business environment. The utilization of factors could be one of the effective knowledge transfers in virtual organization.

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