

A FRAMEWORK FOR KNOWLEDGE MANAGEMENT PRACTICES IN TELEWORKING AND THE EFFECT TO THE ORGANIZATION

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Abstract

The aim of this research is to identify the factors that affect knowledge management in teleworking and its effects towards organizational performance. This paper proposes a framework to identify the benefit of organizations that implement teleworking. In order to achieve this aim, the proposed framework identifies the aspect that influence knowledge management practices in teleworking environment. As a result, the study reveals the significance of leveraging organizational knowledge. This paper is also expected to act as a medium to look for chances in establishing teleworking widely in Malaysia.

Keywords: Teleworking, knowledge management, trust, workplace suitability, culture, organization performance

1. Introduction

Organizations nowadays start to focus on being flexible for employees to work anywhere and anytime rather than traditional style of working which is in a rigid time and place. This is to improve productivity and performance as it is observed to give advantages in terms of working space, operation cost, and technology of the organization, also to the environment indirectly (Aboelmaged & Subbaugh, 2012). Blok et al. (2012) state that the change in the way of working is referred to 'New Ways of Working' that changes four facets which are workspace, technology, management and culture. Since computers and digital networks are proposed into work and business in late 1970s, teleworking, or its other terms which are telecommuting, remote work, distributed work, virtual work, flexible work, flexplace, and distance work (Allen et al., 2015) or e-Working (Hynes, 2014) is favored for its capabilities to influence employees' productivity and quality of working life (Feldman & Gainey, 1997). ICTs allow employees to work though physically away from office by bringing the work to them (Taskin & Bridoux, 2010) through complete or partial use of ICT to give access to the work from disparate and remote locations (Sánchez et al., 2006).

Due to the change, organizations also shift their focus from product-based to knowledge-based economy, as it is believed that organizations could maintain their competitive advantage when they use the organizations' knowledge to the maximum (Pérez et al., 2002) plus, these organizations tend to easily adapt to virtual forms of business compared to those that neglect the aspect (Baltezarevic & Baltezarevic, 2016). Knowledge management could also improve organizational decision making as

knowledge management is an organized process of acquiring, creating, capturing, synthesizing, learning and using information, insights and experiences (Ünal, & Mete, 2012). Though it is challenging to manage communication processes in virtual teams than in co-located teams (Klitmøller, & Luring, 2013), they are able to utilize the knowledge of distributed employees with diverse backgrounds and experiences (Chujfi-La-Roche & Meinel, 2014).

Study on teleworking grows since late 20th century, however those that take knowledge management into account and relates to organizational performance are found scarce. Studies have investigate various factors that influence knowledge management such as human capital (Lee et al., 2014), knowledge evolution monitoring and virtual co-presence (Malhotra & Majchrzak, 2012), emergent practices (Koppman & Gupta, 2014) and many discuss on trust (Olaisen & Revang, 2017; Baltezarevic & Baltezarevic, 2016; Krumm et al., 2016; Allen et al., 2015; Coenen & Kok, 2014; Pangil & Chan, 2014; Pinjani & Palvia, 2013). These factors are found difficult to be grouped into categories which should make this research easily presented, thus limits the research to produce a complete satisfactory study. Furthermore, only a few prior studies that already discussed the factors affecting knowledge management practices in teleworking that relates to the organizational performance, such as the research by Martin & MacDonnell (2012) that examine the relationship between telework and organizational outcomes in four elements; productivity, retention, organizational commitment and performance. They also state that teleworking are not keenly practiced in organization though it indicates advantages to individuals and society.

The aim of this study is to identify the factors that affect knowledge management in organization that implement teleworking. In order to achieve this objective, this research proposes a framework to determine knowledge management in teleworking environment affect the performance of the organization. The remainder of this paper is organized as follows. Section 2 is literature review. Proposed framework is in Section 3. Final section contains some concluding remarks.

2. Literature Review

This research is expected to analyze the factors that affect knowledge management practices in teleworking also its effect towards organizational performance. For the factors affecting knowledge management practices in teleworking, we focus on three main aspect; trust, workplace suitability and culture which are believed to be the leading factors that will influence the practice of knowledge management in teleworking, while the effect of knowledge management practices in teleworking to the organization are focused in terms of organizational performance.

2.1 Factors Affecting Knowledge Management Practices

The factor that has been discussed in most of the articles reviewed is trust. Organization need to work towards trust-building among the employees through face-to-face interaction before they could interact with each other virtually (Coenen & Kok, 2014) as trust could decide the organization's knowledge sharing (Pangil & Chan, 2014). As proposed by Baltezarevic & Baltezarevic (2016) and Pinjani & Palvia (2013),

employees are believed to share knowledge only when they achieve a tolerable level of trust among the coworkers, and knowledge are proven to be shared more as they have trust on each other (Allen et al., 2015). However, Krumm et al. (2016) and Olaisen & Revang, (2017) believed that trust are no longer and obligation to improve knowledge management among employees due to the advancement of technology these days.

Workplace suitability is also one of the popular factors that affect knowledge management in teleworking environment. Employees will be able to practice knowledge management as they feel comfortable with the teleworking environment (Blok et al., 2012) as they adapt with the help of detailed design and context of diverse teleworking practices before performing knowledge management practices (Vesala & Tuomivaara, 2015). Meanwhile, Vilhelmson & Thulin (2016) studied that workplace suitability affect employees to perform knowledge management practices as they teleworking in suitable sectors that are related to knowledge, information and communication.

Culture as a factor that affects the knowledge management practices could be the background of the teleworkers or the culture of the organization itself. Klitmøller & Lauring (2013) suggest that a team of diversified culture have corresponding productivity in sharing explicit knowledge virtually with face-to-face interaction. Meanwhile, Maruyama & Tietze (2012) explain that knowledge should be treated as the organization's property to ensure knowledge sharing and transfer, plus it should be made retrievable easily, either physically or virtually (Ng, 2016).

There are also other factors that could be found affecting knowledge management in teleworking. Vesala & Tuomivaara (2015) and Chung et al. (2016) agree that employees' well-being influence their knowledge management practices as they seem to be pleased to share both tacit and explicit knowledge among their coworkers. Palvalin et al. (2015) also found that well-being at work is crucial for knowledge management in the organization to compare their previous productivity or with other organization. Teleworking enables the creation of completely virtual organization (Starbird & Palen, 2013) and distributed workers could take advantage on the use of enterprise social network sites (ESNS) to perform knowledge sharing in the organization (Ellison et al., 2015). However, Fang et al. (2012) explain that the virtuality of the teams itself forms barriers to knowledge processes. Managers have to acquire more knowledge in information technology (Ünal & Mete, 2012) as it is claimed that teleworking are dependent on technology thus affecting knowledge transfer among the teleworkers and their coworkers (Lewis, 2013).

Franssila et al. (2012) reports that work coupling, social capital, spatio-temporality and abilities of collaboration technologies influence coordinative knowledge practice and the development needs in a distributed work environment. Meanwhile, Karia & Asaari (2016) explain that information resources (both tangible and intangible) also give impact to knowledge management practice in the organization. Koppman & Gupta (2014) found that employees' emergent practices in management in distributed works are more potent over managerial interventions to facilitate knowledge transfer while Lee et al. (2014) proved that mobile research and development (R&D) workers that perform human capital shows more possibilities to adapt and engage actively in creating knowledge though experiencing environmental changes such as mergers and

acquisitions (M&As). Malhotra & Majchrzak (2012) found that virtual co-presence allows members feels other members are near to them and knowledge evolution monitoring allows past individual knowledge of members to be collected and improved to meet organizational goals, while Peters & Batenburg (2015) found that the formalization of teleworking in an organization that hires more professional workers will promotes knowledge transfer and improves organizational productivity and the social cohesion.

2.2 Effects of Knowledge Management Practices

Teleworkers that have apply knowledge management have their performance increase, as they will be more prepared in leveraging knowledge for decision making (Chujfi-La-Roche & Meinel, 2014), innovation capability (Karia & Asaari, 2016), and upgrade their new product development performance (Coenen & Kok, 2014). Having positive relationship with the organization (Martin & MacDonnell, 2012) also add to their performance, plus they tend to help their coworkers more (Aboelmaged & Subbaugh, 2012). Allen et al. (2015) states that supervisor-rated work performance shows increase but self-rated work performance are usually considered low because of its inaccuracy, while Maruyama & Tietze, (2012) also conclude that the performance still varies according to teleworkers' social and occupational.

Lewis (2013) claimed that teleworking are dependent on technology thus indirectly give negative effect on the office environment while Vesala & Tuomivaara, (2015) state that teleworking shows rise in knowledge work satisfaction. Knowledge management is important to the organization to achieve the organization's greatest outcome (Davoudi & Fartash, 2012) as leveraging the knowledge from the organization's information resources allows the company to reach its competitive advantage (Karia & Asaari, 2016).

Table 1. Analysis of Review

Author(s)	Factors Affecting KM Practice	Effect of KM Practice
Aboelmaged & Subbaugh, 2012		Performance increase
Allen et al., 2015	Trust	Performance varies
Baltezarevic & Baltezarevic, 2016	Trust	
Blok et al., 2012	Workplace suitability	
Chujfi-La-Roche & Meinel, 2014		Performance increase
Chung et al., 2016	Employees' well-being	
Coenen & Kok, 2014	Trust	Performance increase
Davoudi & Fartash, 2012		Competitive advantage
Ellison et al., 2015	Social networking sites	
Fang et al., 2012	Teams' virtuality	
Franssila et al., 2012	<ul style="list-style-type: none"> • Work coupling • Social capital • Spatio- 	

	<ul style="list-style-type: none"> temporality Abilities of collaboration technologies 	
Karia & Asaari, 2016	<ul style="list-style-type: none"> Tangible resources Intangible resources 	<ul style="list-style-type: none"> Competitive advantage Performance increase
Klitmøller & Luring, 2013	Culture	
Koppman & Gupta, 2014	Emergent practices	
Krumm et al., 2016	Trust	
Lee et al., 2014	Human capital	
Lewis, 2013	Information technology	Negative effect in office environment
Malhotra & Majchrzak, 2012	<ul style="list-style-type: none"> Knowledge evolution monitoring Virtual co-presence 	
Martin & MacDonnell, 2012		Performance increase
Maruyama & Tietze, 2012	Culture	Performance varies
Ng, 2016	Culture	
Olaisen & Revang, 2017	Trust	
Palvalin et al., 2015	Work well-being	
Pangil & Chan, 2014	Trust	
Peters & Batenburg, 2015	Formalization	
Pinjani & Palvia, 2013	Trust	
Starbird & Palen, 2013	Social networking sites	
Ünal & Mete, 2012	Information technology	
Vesala & Tuomivaara, 2015	<ul style="list-style-type: none"> Employees' well-being Workplace suitability 	Work satisfaction
Vilhelmson & Thulin, 2016	Workplace suitability	

3. Proposed Framework

Prior studies shows that knowledge management practices in teleworking depends on two vital components which are the factors affecting the knowledge management practices and its effects to the organization. Thus, both components are considered as the independent variables while knowledge management practices in teleworking are considered as the dependent variable. Trust, workplace suitability and culture are the main factors that influence knowledge management in the teleworking environment of an organization which then would give impact to the organizational performance. Figure 1 shows the proposed research framework to guide this research.

This research is expected to identify the factors that could influence knowledge management practices among teleworkers with their colleagues and the organization

itself. Those factors could be considered in the preparation of implementing teleworking in an organization. As this research also focuses on how knowledge management practices in teleworking determines organizational performance, the findings will identify the importance of leveraging organizational knowledge specifically in the teleworking environment. This research is expected to be able to be used in all domains and will contribute to the existing literature on knowledge management sector that implement teleworking.

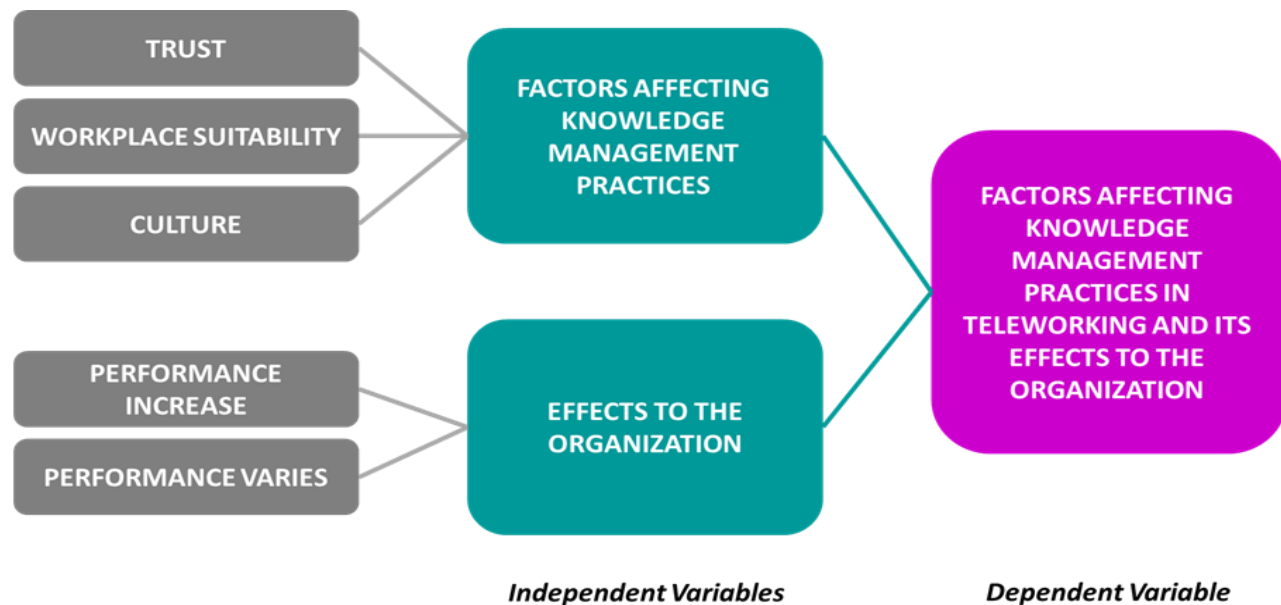


Figure 1. Proposed research framework

4. Conclusions

Knowledge management in teleworking environment is influenced by trust, workplace suitability and culture of the organization. Some research proposed that employees only share knowledge when they trust others. However some researchers revoke by stating that trust are no longer essential as employees nowadays are able to adapt to it through the use of current advanced technology. Workplace suitability affects knowledge management in terms of employees' comfortability and needs according to their job sectors. The culture of the employees and their organization also affect in a way that knowledge transfer are ensured to be understood as how it was intended, also by treating knowledge as organizational property instead of individual property. The knowledge management practices that are mostly influenced and discussed in the literature review are knowledge common, creation, acquisition, sharing, transfer, and evolution. Majority of the studies agreed that knowledge management practices in teleworking increase organizational performance, abilities for competitive advantage

and work satisfaction, though some state that performance could be varied or give negative effect to the office environment.

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