KNOWLEDGE SHARING AND INNOVATIVE BEHAVIOUR: THE ROLE OF WORK ENGAGEMENT AS A MODERATOR

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ABSTRACT: *The objective of the current study is to investigate whether the three dimensions of work engagement namely vigor, dedication and absorption moderate the relationship between knowledge sharing and innovative behaviour. The study employs a quantitative method by using structured questionnaires for the purpose of data collection. The unit of analysis is individual, and 309 responses were collected from engineers working in the manufacturing firms in the electrical and electronic sector in Malaysia. Data were analyzed using Partial Least Square method. The result indicated work engagement as vigor, dedication, and absorption are significant as moderators between knowledge giving dimensions of knowledge sharing and innovative behaviour. Only vigor and absorption have significant effects as moderators between knowledge receiving dimension of knowledge sharing and innovative behaviour.*

Keywords: Knowledge sharing, work engagement, innovative behaviour

1. INTRODUCTION

With the advent of technology and globalization of business, the issue of innovation has become critical for organizations. To respond to this issue, innovative behaviour among organizational members has become crucial for organizations, as their employees' knowledge and experience are the primary sources of innovativeness. Organizations employ multiple resources, but now organizations are increasingly aware that other organizations are likely to have the same resources and managerial expertise [10], especially in multinational companies (MNCs) in the electrical and electronic (E&E) manufacturing sector, where the business environment is characterized by intense competition. Innovative behaviour among the employees is an important factor for the realization of innovation, as it can lead the change to a more improved innovation process either in the production or to produce new ideas [4], with the support provided by the organization to implement reform in processes, methods and operations [8]. Agarwal (2014) in his study to examine the impact of social exchange relationships on innovative work behaviour within the context of work engagement found that work engagement gives a positive effect on innovative behaviour. In another word, engaged employees would promote innovativeness. These findings suggest that work engagement is pivotal for organizations to gain competitive advantage because even if organizations have supportive practices, innovative behaviour will depend on how engaged the employees are at work [2].

2. LITERATURE REVIEW

2.1 INNOVATIVE BEHAVIOUR

Wang, Fang, Qureshi, and Janssen (2015) defined innovative behaviour as a complex behaviour that consists of three different tasks, which is idea generation, idea promotion, and idea realization. While Kang, Solomon, and Choi (2015) concluded that innovative behaviour as a multistage process with several different activities with different individual behaviours required in each stage. Individual innovative behaviour plays an important role in generating competitive advantage within the organization. Murray, Aghion, Dewatripont, Kolev, and Stern (2009) believed it is important for an organization to identify and understand the characteristics and behaviour of innovative individuals to create and promote the innovative working environment. The basis of an innovative organization is derived from the contributions of innovative treatment that exists among employees. De Jong and Den Hartog (2007) explain that the practice of innovative behaviour enables employees to explore opportunities, identify gaps in performance, or produce a solution to the difficulty.

Recently, the domain of innovative behaviour has started to overlap with the cognitive-affective motivation aspect [2], which is mainly investigating at the individual level of individual abilities in intra/inter-organization knowledge sharing activities. Studies on innovative behaviour in the workplace have also opened a new perspective of the individual ability to engage with their work via the concept of work engagement. Thus, this study will look at the innovative behaviour individually, influenced by the interaction between knowledge sharing, and work engagement.

2.2 KNOWLEDGE SHARING

While previous studies have been conducted on knowledge sharing and have established the various factors that affect an individual's willingness to share knowledge, such as costs and benefits, incentive systems, extrinsic and intrinsic motivation, organization climate, and management championship [26], however, all these studies do not emphasize knowledge sharing in the context of innovative behaviour as a consequence of knowledge sharing in an individual with influences of work engagement. Donate and Guadamillas (2011) argues that knowledge sharing is a major concern because of the recognition of the value of organizational learning in knowledge creation [12] and innovation within an organization. In line with this, the literature reviews in this study attempt to lay the foundation for the relationship between the variables, thus, providing a basis for the research framework.

Life today is based on knowledge society and knowledge economy (K-Economy), where knowledge of the business organizations is an important strategic resource [12], researchers see it as a core driver of efficiency and organizational performance [20]. There are various definitions of knowledge sharing in the research literature. Knowledge sharing can be defined as the culture of social interaction, including the exchange, and sharing of knowledge, experience, and expertise among employees through the entire department or organization. It is noted that knowledge sharing is considered as a means and method to obtain knowledge of the individual and thus to disperse the

new knowledge throughout the organization. Knowledge sharing is considered as one of the important aspects of knowledge management and the key to the success of knowledge management is dependent on knowledge sharing [28]. For example, knowledge sharing has been established to increase the capacity of innovation and organizational performance. According to Reid (2003), knowledge sharing can create a good opportunity for the organization to maximize the ability to meet market needs and generating solutions and increase efficiency in order to provide organizations with a competitive advantage.

A study conducted by Yu, Yu-Fang, and Yu-Cheh (2013) show that knowledge sharing among employees will be able to increase individual innovative behaviour and their ability to innovate. More workers doing knowledge sharing, more knowledge can be internalized. Mura, Lettieri, Radaelli, and Spiller (2013) proved that there is a positive role by behaviours in sharing information to give effect to the sharing of innovation. It can be seen through the propensity and capacity to promote and implement new ideas within the organization. In other words, knowledge sharing behaviour has a positive role to give the impression of sharing innovation among employees. Indirectly, this sharing of knowledge can create a positive relationship with the existence of innovative behaviour. Therefore, this study empirically investigates the direct linkage between knowledge sharing (giving and receiving) and innovative behaviour.

2.3 WORK ENGAGEMENT

Basically, the original basis of the work engagement concept was developed by Kahn (1990) in an ethnographic study on the employees of an architecture firm. He acknowledges that engagement is "the harnessing of organizational members selves to their work role by which they employ and express themselves physically, cognitively, and emotionally during work performance" [16]. However, the most acceptable definition originates from Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002), which defined work engagement as "a positive, fulfilling, and work-related state of mind characterized by vigor, dedication, and absorption" [22]. Vigor refers to high energy and mental resilience while working, have the willingness to invest effort in work, and always persistence, even while in facing difficulties. While dedication is defined as a sense of significance, enthusiasm, inspiration, pride, and challenge. Absorption is characterized by being fully concentrated and deeply engrossed in work, which senses that the time has passed quickly and has difficulty to suspend work. These three dimensions of work engagement have been demonstrated as a piece of single factor evidence from previous empirical research [32].

Agarwal (2014) in his study to examine the impact of social exchange relationships on innovative work behaviour with the role of work engagement found that work engagement gives a positive effect on innovative behaviour. In another word, engaged employees would promote the innovativeness. These findings suggest that work engagement is pivotal for organizations on gaining a competitive advantage because even if organizations have supportive practices, innovative behaviour will depend on how engaged the employees at work [2]. Furthermore, work engagement has been empirically established as a moderator in previous research [1,2,3,25,29].

Based on the above discussion, these hypotheses are formulated:

H1 Vigour moderates the relationship between knowledge giving and innovative behaviour

H2 Dedication moderates the relationship between knowledge giving and innovative behaviour

H3 Absorption moderates the relationship between knowledge giving and innovative behaviour

H4 Vigour moderates the relationship between knowledge receiving and innovative behaviour

H5 Dedication moderates the relationship between knowledge receiving and innovative behaviour

H6 Absorption moderates the relationship between knowledge receiving and innovative behaviour

3. METHODS

The non-probability method of judgmental sampling is the most suitable sampling technique to be employed in this study. According to Sekaran (2000), judgmental sampling involved the choice of subjects of individuals or workers which in the best position to provide the most related and required information. In the context of the study, this sampling method is the most suitable because the sample requires specific attributes to be attached to the job position to ensure the interpretation of the data is meaningful. The job position and level that has been identified for the purpose of the study is the engineers because they are in the best position that can provide reliable information to the researcher in studying knowledge sharing and innovative behaviour in organizations. It is because their jobs are specifically related to innovativeness and sophisticated knowledge that requires sharing information with other employees.

The sample size recommended for PLS analysis should be ten times the largest number of structural paths directed at a latent variable in the structural model. In the context of this study, it would be at least 80 samples. After reviewing the suggestions, this study will apply on Hoe (2008) suggestion because the 200 samples as proposed by Hair, Black, Babin, and Anderson (2010) and Hair, Ringle, and Sarstedt (2011) that 80 samples is the minimum number that is required in order to run a multivariate analysis. This is supported by Schreiber, Nora, Stage, Barlow, and King (2006) that a generally agreed sample size is 10 participants for every parameter estimates.A total of 1550 questionnaires were distributed using drop and collect method to 274 E&E manufacturing firms listed in the Federation of Malaysian Manufacturers Electrical and Electronic Directory 2016. The rate of response was 309 usable responses indicating 19% responses.

Knowledge sharing in this study is measured using two dimensions, knowledge giving and knowledge receiving. The measurements are derived from Hooff and Weenen (2004), it assesses the degree of employee's willingness to contribute and receive knowledge to and from each other. Knowledge giving is measured using six items adapted from Hooff and Weenen (2004) , while knowledge receiving is measured using eight items adopted from Hooff and Weenen (2004). The measures apply a five-point Likert scale with (1) for 'strongly disagree', (2) for 'agree', (3) for 'neutral', (4) for

'agree', (5) for 'strongly agree'. The measures for innovative behaviour are adopted from Janssen (2000) scale for individual innovative behaviour in the workplace with nine items scales (Cronbach's alfa = 0.95). The items are measured with five points Likert scale ranging from (1) for 'Never', (2) for 'Almost Never', (3) for 'Sometimes', (4) for 'Often', and (5) for 'Very Often'. Work engagement is measured with the nine items version of the Utrecht Work Engagement Scale (UWES) adopted from Schaufeli et al (2009). There are three dimensions for work engagement, namely, vigor, dedication, and absorption. The measurement consists of three items per dimension, with a five-point Likert Scale, ranging from strongly disagree (1) to strongly agree (5).

4. RESULTS

Moderating effects are evoked by variables which affect the strength or direction of a relationship between an exogenous and endogenous variable [9]. To examine the moderators as indirect effects, the product indicator approach [5] has been applied to detect the interaction of vigour, dedication, and absorption as a moderating effect with the knowledge giving and innovative behavior.

Table 1 indicated that all moderating interaction which is vigor (ß = 1.011, *t* = 9.187, p < 0,01), dedication (ß = 1.061, *t* = 15.927, p < 0.01) and absorption (ß = 0.903, *t* = 12.682, p < 0.01) has a significant effect towards innovative behaviour. The result also revealed that dedication has the highest interaction as moderator, followed by absorption, and vigour. Therefore, the effect of knowledge giving on innovative behaviour is stronger when vigour, dedication, and absorption is high.

Table (1) Moderating Path Coefficients of Work Engagement between Knowledge Giving and Innovative Behaviour

H	R/ship	Beta	Std Error	*t* value	Support
	Main Effects				
	VIG → IB	0.429	0.044	9.727	--
	DED → IB	0.489	0.045	10.833	--
	ABS → IB	0.387	0.047	8.303	--
	Two Way Interaction				
H1	KGIV → VIG → IB	1.011	0.110	9.187**	Yes
H2	KGIV → DED → IB	1.061	0.067	15.927**	Yes
H3	KGIV → ABS → IB	0.903	0.071	12.682**	Yes

While Table 2 indicated that vigor (ß = 0.682, *t* = 3.435, p < 0,01) and absorption (ß = 0.903, *t* = 12.503, p < 0.05) has a significant effect towards innovative behavior, which the highest interaction as moderator is absorption, followed by vigor. Therefore, the effect of knowledge receiving on innovative behavior is stronger when absorption and vigor are high. On the other hand, dedication (ß = 0.375, *t* = 1.831, p < 0.05) was not significant as a moderator on knowledge receiving and innovative behaviour. Therefore, there is no effect of knowledge receiving on innovative behaviour when dedication is high.

Table (2) Moderating Path Coefficients of Work Engagement between Knowledge Receiving and Innovative Behaviour

H	R/ship	Beta	Std Error	*t* value	Support
	Main Effects				
	VIG → IB	0.580	0.032	18.263	--
	DED → IB	0.473	0.050	9.514	--
	ABS → IB	0.387	0.048	8.075	--
	Two Ways Interaction				
H4	KREC → VIG → IB	0.682	0.199	3.435**	Yes
H5	KREC → DED → IB	0.375	0.205	1.831	No
H6	KREC → ABS → IB	0.903	0.072	12.503**	Yes

5. DISCUSSION AND CONCLUSION

The results from this study found that vigour (H1), dedication (H2), and absorption (H3) have a significant moderation relationship between knowledge giving and innovative behaviour. The result of the analysis signifies that work engagement strengthened the relationship between the respective variables and thus helps increase innovative behaviour among engineers. The results from this study also found that vigour (H4), and absorption (H5) have a significant moderation relationship on knowledge receiving and innovative behaviour. However, dedication (H6) was found to have a non-significant role as a moderator between knowledge receiving and innovative behaviour. Therefore, this result is an indication that vigour and dedication help strengthening these relationships and thus increasing innovative behaviour among engineers. On the other hand, dedication does not contribute to the relationship between the variables. The moderating role of work engagement concerning knowledge giving and knowledge receiving is also empirically supported in the current study that is very useful for practitioners as it highlights the urgency to increase effort to encourage innovative behaviour in their organizations. This study is expected to provide the necessary impetus to organizations, the importance of retaining and developing talented employees as a source of competitiveness to face the internal and external challenges presented by the highly volatile business environment.

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