

Employee Participation and Innovative Work Behaviour: The Mediation Effect of Work Engagement

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Abstract

This article discusses the influence of work engagement as a mediator between employee participation on innovative work behavior. The value of employee participation in innovative behaviour cannot be denied. We know very little about how employee participation contributes to individual creativity and business innovation through work engagement, even though prior studies has been empirically tested the linked between HRM practices and innovation. Therefore, the objective of this study are twofold, first to identify the relationship between employee participation and innovative work behaviour, second to examine the mediating role of work engagement between employee participation and innovative work behaviour. Consequently, an analysis was conducted on 170 middle management employees in medium size enterprises using PLS-SEM approach. Results show that employee participation has significant effect on work engagement, and work engagement also has significant effect on innovative work behaviour. Work engagement also mediates the relationship between employee participation and innovative work behaviour. The findings of study add to the body of knowledge related to HR practices particularly in employee participation and give new insights to the organizations that employee participation is crucial indicator in determining the level of work engagement amongst decision maker especially in strengthening HRM implementation in organizations.

Keywords: Employee Participation, Innovative Work Behaviour, Work Engagement

Introduction

This paper explores the role of work engagement in influencing employee participation on their impact towards innovative work behaviour. It addresses the lack of understanding of how the employee participation might be used to address the 'people factor' on being innovative at their working environment (Benn, Teo, and Martin, 2015). While the wider HRM literature acknowledges the link between certain HRM practices such as employee

participation and positive outcomes for the organization (Benn *et al.*, 2015). Despite the fact that this basic relation between HRM practices and performance has been empirically demonstrated, we know relatively little about how HRM practices contribute to individual creativity and firm innovation (Jiang *et al.*, 2012). As a result, further research is needed to completely understand the relationship between HPWS and performance in general, and the relationship between HPWS and innovation in particular (Zhang, di Fan, and Zhu, 2014).

This research focuses on the impact of participation-oriented managerial techniques in the implementation of these initiatives on employee inventive work behaviour and, as a result, their engagement with the organisation. As a result, it provides much-needed empirical proof on HRM's crucial role in employees' innovative behaviour. Despite the extensive literature on the topic of a relationship between various HRM interventions and aspects of individual innovation, we still don't have a clear understanding of what might motivate a business organisation to commit HRM resources to assist in generating and maintaining innovative behaviour. In this research, we discuss how bringing employee participation might affect work engagement and consequently improve outcomes, such as innovative work behaviour.

Literature Review

Employee Participation and Work Engagement

Employee participation is the key component determined the successfulness of new management strategies and satisfaction of employees Irawanto (2015) . He later added satisfaction is the key to motivation leads to higher commitment towards their task. Participation functions in three main elements, first giving an opportunity for employees to set their goals and develop career, second to get ideas among employees and third giving authorization and distribute responsibilities to them (Irawanto, 2015).

Employee participation, its open an avenue for employee likely to engage more in proactive problem solving, being creative in challenging task and enthusiast to work beyond their limited set of tasks (Prieto and Pérez-Santana, 2014). At the same time, by inviting employees to participate in decision-making process rises the level of engagement in pouring knowledge to innovation efforts (Ma et al., 2019b). Proven in their research, Prieto and Pérez-Santana (2014) placed employee participation under opportunity-enhancing practices and found positive significant relationship between this practices to management support and coworkers support to innovative work behaviour. In light of the previous studies findings, employee participation is crucial in determining the level of work engagement. In fact employee participation role are seen as important as well to assist employee engagement in workplace. Therefore, this study attempt to examine the relationship of employee participation on innovative work behaviour and work engagement by hypothesized:

H1: Employee participation has a positive relationship with work engagement

Work Engagement and Innovative Work Behaviour

Previous literature has empirically proven that work engagement highly connected to positive outcomes such as innovative behaviour (Agarwal, 2014a; Agarwal, Datta, Blake-Beard, and Bhargava, 2012; De Spiegelaere, Van Gyes, De Witte, Niesen, and Van Hootegem, 2014; Jung and Yoon, 2018; Kwon and Kim, 2019; Park, Song, Yoon, and Kim, 2014b; M. Salanova and Schaufeli, 2008), job performance (Bal and De Lange, 2015; Marisa Salanova, Schaufeli, Xanthopoulou, and Bakker, 2010) and intention to quit (Agarwal *et al.*, 2012; Oliveira and

Silva, 2015; Saks, 2019; Yalabik, Popaitoon, Chowne, and Rayton, 2013) among others. However, focus of this study is to deeply discuss the relationship between work engagement and innovative work behaviour.

Organizational success rely on human resource capability (Ibidunni, Kolawole, Olokundun, and Ogbari, 2020). Innovation and creativity are two key to the company's performance, success and long-term survival (Anderson, Potočnik, and Zhou, 2014). Therefore, to ensure organizational sustainability and growth requires creativity and innovative behaviours from organizational members because organizational innovations performance is driven and spark by employee innovative behaviour (Jung and Yoon, 2018). However, this innovative behaviours is not moved by themselves because employees need a motivational support to drive them being innovative in the workplace. Therefore, we hypothesized that:

H2: Work engagement has a positive relationship with innovative work behaviour

Work Engagement as Mediator

Based on previous study work engagement has been recognized as an imperative mediating variable (Agarwal, 2014a). Adequate and availability employee participation, will lessen the pressure on job demands and create a positive atmosphere in workplace (Agarwal, 2014). Employees will be more productive, enthusiastic and feel more motivated to do their job more meaningfully. When they find their task interesting, they will work hard and involve oneself deeply in particular task and persevere to complete even the most difficult assignment (Agarwal *et al.*, 2012). Feeling good about work spurs willingness to tryout, leading to the creation of new ideas and novel solutions (Fredrickson, 2001) such as innovative work behaviour. (Agarwal *et al.*, 2012) in their research investigate the mediating effect of work engagement towards job resources consists of job control, feedback and variety on proactive behaviour at work found that work engagement fully mediates the relationship between these two variables.

Most of previous studies showed on how work engagement creates a motivational process in linking job resources and outcomes. (Jung and Yoon, 2018) also proved that work engagement fully mediates the relationship between learning organization and innovative work behaviours. So do a similar study conducted by (Park, Song, Yoon, and Kim, 2014b), they found work engagement fully mediates the relationship between learning organization and innovative behaviours. (Ma, Zhai, Zhong, and Zhang, 2019b) in different works identify job resources (i.e job characteristics, perceived organizational support, perceived supervisor support, rewards and recognition, procedural justice, and distributive justice) and link it to several outcomes (i.e job satisfaction, organizational commitment, intention to quit, and organizational citizenship behavior), they come out with important findings that suggesting positive relationship between resources and engagement in which these two variables reciprocal to each other.

Based on these arguments, it is clearly defined that engaged employees become more perseverance and persistent in doing their task accompanied with adequate resources from organizational and personal resources. Therefore, this study expected and proposed hypothesis that :

H3: Work engagement mediates the relationship between employee participation and innovative work behaviour

Research Methodology

A probability stratified sampling and simple random sampling technique was applied in this study. A list of SME was obtained from SME Corporation Malaysia and selection was made to only medium size manufacturing industry. The questionnaire was sent to the company and collected after two weeks. The population or sampling unit in this study was middle level employees in medium size enterprises manufacturing industry located in Lembah Klang. Following Agarwal, (2014a); Collins and Smith, (2006); Liu et al (2017), we asked participating firms' HR department manager/senior executive to randomly select a list of five core knowledge middle management employees as those who are critical to knowledge creation and development of innovation in their firms.

A five-point Likert-scale was used to measure the items based on three categories namely employee participation, work engagement and innovative work behaviour. The scale for employee participation were adapted from Delery and Doty (1996) and Prieto and Pérez-Santana (2014) consists of six items. Work engagement used Utrecht Work Engagement Scale (UWES) and adopted from Schaufeli *et al.* (2006) consists of 17 items. Work engagement divided into three dimensions absorption, dedication and vigor based on previous literature (Schaufeli, Salanova, González-romá, and Bakker, 2002). Innovative work behavior is tested as dependent variable in this study, adopted from Janssen (2000) that contain nine items. Respondents of this study consist of middle management employees in medium sized enterprises. 405 questionnaires were distributed and 170 questionnaires were valid for analysis indicated for 43 percent response rate.

Data Analysis

To test the model developed, we used the partial least square (PLS) approach. PLS is a second-generation multivariate technique (Hair, Sarstedt, Pieper, and Ringle, 2012) which can simultaneously evaluate the measurement model (the relationships between construct and their corresponding indicators and the structural model with the aim of minimizing the error variance (Hair, Ringle, and Sarstedt, 2013). Smart PLS 3.0 was used to analyze the data. Also following the suggestions of (Hair *et al.*, 2013) we used the bootstrapping method (5000 re-samples) to determine the significance levels for loadings weights and path coefficients.

Common method variance needs to be examined when data are collected via self-reported questionnaires, and in particular both the predictor and criterion variables are obtained from the same person (Podsakoff, MacKenzie, Lee, and Podsakoff, 2003). Full collinearity test was performed to determine whether any constructs reflects the variance inflation factor (VIF) values of equal to or greater than 5.0 (Kock, 2015). Results shows that pathological VIFs for all constructs are range from 1.569 to 3.0 (Table 1), indicating that common method variance is not a serious problem in this research.

Test of Measurement Model

Convergent Validity

Convergent validity is assessed through items loading, composite reliability of each scale, and average variance extracted for each construct. As suggested by (Hair, Hult, Ringle, and Sarstedt, 2014), we used the factor loadings, composite reliability (CR) and average variance extracted (AVE) to assess the convergent validity. The standardized values of loadings are recommended to be greater than 0.50 by Hair et al 2014, and AVE values should be greater than 0.5 (Fornell and Larcker, 1981) and CR should be greater than 0.7. From figure 1, it can be seen that we have conceptualized work engagement as higher-order construct. Thus, we

followed the method suggested in the literature in PLS which is disjoint two-stage approach to model the higher-order factor in the PLS analysis. Table 2 shows that the results of the measurement model exceeded the recommended values, thus indicating sufficient convergence validity (Figure 1). Accordingly, some items were deleted (ABS_1, ABS_3, DEDI_5, VIGOR_1, VIGOR_2, VIGOR_3) because they had loadings values of less than 0.50 and cross loadings issue.

Table 1
Full Collinearity Testing

Constructs	Absorption	Dedication	Vigor	Employee Participation	Innovative Work Behaviour
VIF	2.231	3.000	2.039	2.095	1.569

Table 2
Measurement model

Construct	Items	Loadings	Cronbach's alpha	CR	AVE
Employee Participation	EP_1	0.807	0.911	0.931	0.693
	EP_2	0.785			
	EP_3	0.831			
	EP_4	0.883			
	EP_5	0.884			
	EP_6	0.800			
Absorption	ABS_2	0.732	0.714	0.807	0.514
	ABS_4	0.655			
	ABS_5	0.659			
	ABS_6	0.809			
Dedication	DEDI_1	0.913	0.925	0.947	0.817
	DEDI_2	0.945			
	DEDI_3	0.872			
	DEDI_4	0.883			
Vigor	VIGOR_4	0.783	0.748	0.855	0.663
	VIGOR_5	0.882			
	VIGOR_6	0.774			

Innovative Work Behaviour	IWB_1	0.809	0.935	0.946	0.660
	IWB_2	0.802			
	IWB_3	0.768			
	IWB_4	0.823			
	IWB_5	0.750			
	IWB_6	0.816			
	IWB_7	0.850			
	IWB_8	0.841			
	IWB_9	0.845			

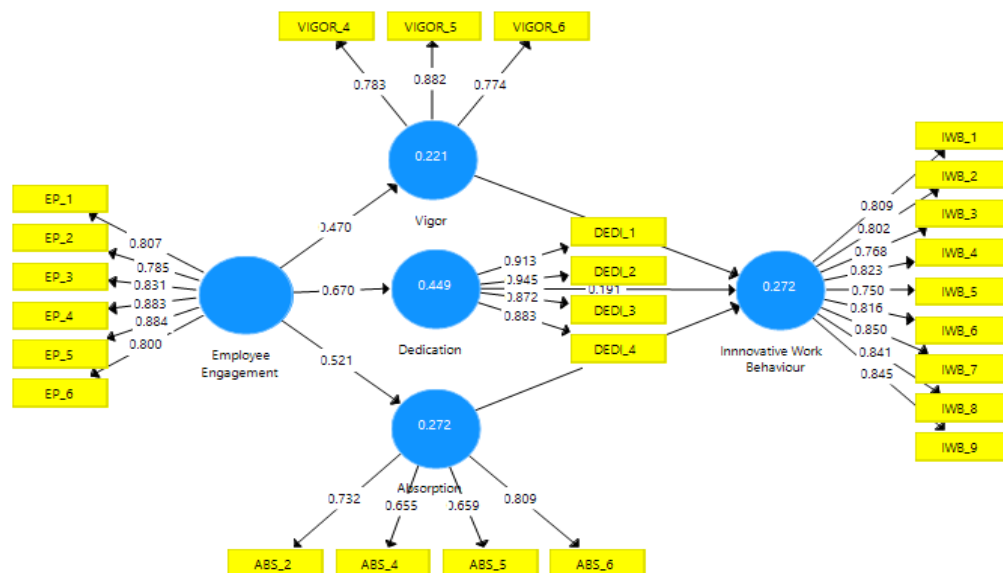


Figure 1 The PLS Algorithm Results (Disjoint two-stage approach)

Discriminant Validity

Discriminant validity is assessed through the method through which the pairwise correlation among factors was extracted. This method of comparison of correlation with variance extracted is introduced by Fornell and Larcker (1981). The confirmation of the discriminant validity happens when diagonal values are significantly higher than that of the off-diagonal elements in the corresponding rows and columns. The diagonal values are the square root of the AVE values for each factor. The values are shown in Table 2. Results show that all the constructs possess discriminant validity.

Table 3
Discriminant Validity

Constructs	1	2	3	4	5
1. Absorption	0.717				
2. Dedication	0.717	0.904			
3. Employee Participation	0.521	0.670	0.833		
4. IWB	0.318	0.409	0.514	0.812	
5. Vigor	0.592	0.630	0.470	0.506	0.814

Note: Values on the diagonal (bold) represents the square root of the AVE while the off-diagonals are correlations

Assessment of higher-order construct (HOC) level

Work engagement is the higher order construct in the study on four lower order constructs Absorption, Dedication and Vigor. In order to establish the higher order construct validity outer weights, outer loading, and VIF. The outer weight were found significant (Hair *et al.*, 2014). Furthermore, outer loadings were found greater than 0.50 for each of the lower order construct (Sarstedt, Hair, Cheah, Becker, and Ringle, 2019). Finally, VIF values were assessed to check collinearity, all VIF values are less than the recommended value of 5 (Kock, 2015). Since all criteria are met, the HOC validity was established.

Table 4
Higher Order Construct Validity

HOC	LOC	Outer Weight	Weight t-value	p-values	Outer Loading	Loading t-value	Loading p-value	VIF
Work Engagement	Absorption	0.010	0.070	0.472	0.743	9.719	p<0.001	2.208
	Dedication	0.718	5.215	0.000	0.957	29.666	p<0.001	2.375
	Vigor	0.369	2.751	0.003	0.827	11.520	p<0.001	1.777

Structural Model Analysis

The next phase is structural equation modeling, which involves evaluating the hypothesized relationship in order to validate the hypothesis. We used a 5,000 sample re-sample bootstrapping procedure (Ramayah *et al.*, 2018) to report the path coefficient, standard error, t-values, and p-values for the structural model, as suggested by Hair, Sarstedt, and Ringle (2019). The structural model analysis is shown in Table 5. We calculated the R², which reflects the proportion of variance explained by exogenous variable, and found that employee participation explained 43.5 percent of innovative work behaviour. From the analysis, it was found that employee participation ($\beta = 0.660$, t-value = 15.885, p-value < 0.001) was positively related to work engagement. Work engagement ($\beta = 0.487$ t-value = 7.322, p-value < 0.001) was positively related to innovative work behaviour. Thus, H1 and H2 were supported.

Apart from reporting the p-value, it is crucial to provide both substantive significance referring to the effect size (f^2) and statistical significance according to the p-value as suggested

by Sullivan and Feinn (2012). Based on criticism by Hahn and Ang (2017), p-values are not a good criterion for assessing the significance of hypothesis, hence a combination of p-values, confidence intervals, and effect sizes should be used instead. A guideline by Cohen (1988) is followed to calculate the effect size. Cohen (1988) defined large, medium, and small effect sizes as f^2 values of 0.35, 0.15, and 0.02 correspondingly. Table 5 summarized that effect size of work engagement is large (0.770) while medium effect size for innovative work behaviour (0.311). Figure 2 shows the structural model assessment.

Table 5
Hypothesis Testing Direct Effects

Hypothesis	Relationship	Std Beta	Std Error	t-value	p-value	Decision	R ²	f ²	VIF
H1	EP -> WE	0.660	0.042	15.885	p < .001	Supported	0.237	0.770	1
H2	WE -> IWB	0.487	0.067	7.322	p < .001	Supported	0.435	0.311	1

Notes: EP = Employee Participation; WE = Work Engagement; IWB = Innovative Work Behaviour

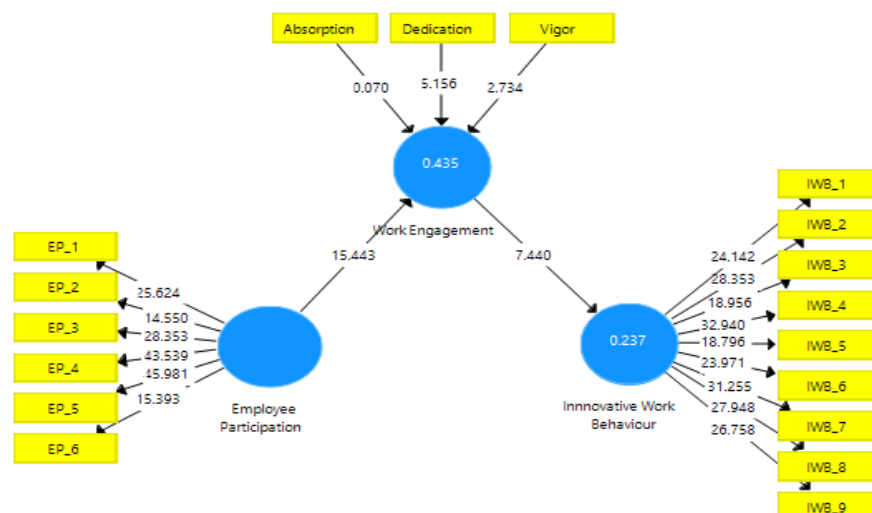


Figure 2 Structural Model Assessment

Mediation Assessment

Next, in order to assess the indirect effect, we tested the mediating effect, which has been suggested in the literature. By bootstrapping the indirect effect, we followed the suggestions of Preacher and Hayes (2008). We can conclude that there is significant mediation if the confidence interval does not straddle a 0. As shown in Table 6, Employee Participation -> Work Engagement -> Innovative Work Behaviour ($\beta = 0.321$, t-value = 6.088, p-value = p < .001) was significant. The confidence intervals bias corrected 95% also did not show any intervals straddling a 0 thus confirming our findings. Thus, H3 was supported.

Table 6

Mediation Testing

Hypothesis	Relationship	Indirect effect beta	Std Error	t-value	p-value	BCI UL	BCI LL	Decision
H3	EP -> WE -> IWB	0.321	0.053	6.088	p < .001	0.222	0.396	Supported

Notes: EP = Employee Participation; WE = Work Engagement; IWB = Innovative Work Behaviour

Predictive Relevance

Finally, as indicated by (Hair *et al.*, 2017), the predictive relevance of the model is tested via the blindfolding test. Blindfolding procedure is a resampling technique that systematically deletes and predicts every data point of the indicators in the reflective measurement model of endogenous construct (Ramayah *et al.*, 2018). It is used to compare the original and predicted values, and if the prediction is near to the original values, the path model has a high predictive accuracy. However, if the Q^2 is greater than 0, the model has sufficient predictive relevance for the endogenous construct under investigation (Hair *et al.*, 2017). Using a distance value of 9, Table 7 shows that predictive relevance Q^2 values for Innovative Work Behaviour is 0.147 and work engagement is 0.301, it was greater than 0 suggesting that the model has good predictive relevance.

Table 7

Predictive Relevance

Constructs	Q^2	Predictive Relevance
Innovative Work Behaviour	0.147	Yes
Work Engagement	0.301	Yes

Conclusions and Managerial Implication

Employee participation determined the degree of work engagement amongst middle management employees. The more participation of employees, the higher the level of engagement. This finding consistent with previous study (Joung, Goh, Huffman, Yuan, and Surles, 2015), which found that having participation allows employees to engage more and being proactive problem solving, innovative in confronting difficult tasks, and enthusiastic at work.

This research also has some practical implications for business practitioners for ways to recuperate their innovation efficiency and maximize the benefits of their HRM practice. Firstly, in terms of organizational practicality among medium sized enterprises in Malaysia, the systematic and proper implementation of HRM practices is still in its infancy. There are still many medium sized enterprises that are less concerned about the importance of implementing a good employee participation to be adopted for their employees. This study has demonstrated that employee participation is amongst the most important indicator to be implemented in organizations regardless of how tribulation hit the financial and organizational structure. Thus, this study gives an impact and guidelines to business owners

and HR managers to choose the best practical HRM practices if they are still not able to implement all dimensions simultaneously. This study contributes to the industry on the importance of employee participation as organizational resources in influencing employees engagement in order to be competitive and innovative.

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