

# **EMPLOYEE ENGAGEMENT IN THE MALAYSIAN PUBLIC SECTOR: THE MODERATING EFFECT OF JOB DEMANDS ON THE RELATIONSHIP BETWEEN EMPLOYEE PARTICIPATION, EMPLOYEE MOTIVATION, AND SELF-EFFICACY**

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## **ABSTRACT**

The optimization of employee engagement poses significant challenges for organizations worldwide, including in Malaysian public sector. In narrowing knowledge, demographic, and empirical gaps. This study aimed to examine the moderating role of job demands (JD) on the relationship between employee participation (EP), employee motivation (EM), self-efficacy (SE), and employee engagement (EE) within the Information technology (IT) departments of the Malaysian public sector. A quantitative approach using SmartPLS software was applied to analyze the data. This study discovered that only EM and SE have a significant impact on EE. On the other hand, there was no discernible impact of JD on the link between EM and EE. However, there was a moderation effect of JD on the relationship between EP and EE. By providing theoretical and empirical evidence as well as contextual and practical implications, this study is expected to aid the Malaysian government in optimizing the engagement of public employees and thus, enhance the productivity of the public sector in both administrative and economic growth.

**Keywords:** employee engagement; job demand; employee participation; employee motivation; self-efficacy

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## **1. INTRODUCTION**

Employee engagement (EE) can be defined as the alignment of individuals' identities with their work responsibilities, and when this occurs, employees express themselves physically, mentally, and emotionally (Osborne & Hammoud, 2017). Employees can be classified as engaged employees and disengaged employees. Engaged employees have positive impacts on the organization while the latter have negative impacts (Madan & Srivastava, 2015; Muthike, 2017). Businesses that have engaged employees outperform those without them, in terms of customer happiness, profitability, employee contentment, effective teams and productivity motivation (Sorenson, 2013). Nevertheless, one of the challenges for businesses is employees' low level of engagement at work (Osborne & Hammoud, 2017; Robertson-Smith & Markwick, 2009), thus, optimizing employee engagement will continue to be a challenge for firms worldwide (George, Suppramaniam, & Arumugam, 2021; Bakker & Albrecht, 2018). The challenge of optimizing employee engagement occurs both in the private and the public sector. Public sector employees' engagement on their work is critical in delivering the best services and needs of the people and thus, actualizing the goals of the nation. Employees' optimum engagement on their work should be a top priority in the public sector, as disengaged employees have substantially negative impact on all sectors (George et al., 2021; Osborne & Hammaud, 2017).

The context of this study is Malaysia's public sector. It was reported by Bakar (2013) that the empirical research on the Malaysian context in terms of employee engagement is limited compared to western contexts. Previous research were mainly focused on private sectors (Taib, Saludin, Noordiana, & Hanafi, 2018). Some other research had recently focused on public sectors but not particularly on the information technology (IT) sector (Abdullahi, Raman, & Solarin, 2021; Mansor, 2018). Thus, the IT sector is the main focus of this study, because Malaysia's public sector is undergoing massive digitalization efforts on its systems (Azaliah et al., 2020). The vision statement of Malaysia digital transformation goals is to be a regional leader in digital economy with sustainable socioeconomic development. For the purpose of implementing government programmes and boosting the nation's economic development, the public sector is a vital part to achieve the vision by the proposed year 2030. In order to develop efficient collaboration, and sustain high levels of motivation among employees, as well as the values and goals of the nation, employee engagement is essential in the public sector (Bedarkar & Pandita, 2014)

Employee engagement is a priority for public-sector leaders who wish to inspire commitment and loyalty among government employees (Vigoda-Gadot, Eldor, & Schohat, 2013). Employee engagement is driven by a variety of variables, which include participation, motivation, and self-efficacy (Carter et al., 2016). However, a related literature also suggests that job demands can deplete employee's energy and cause disengagement, which can affect employee's performance (Green, Finkel, Fitzsimons, & Gino, 2017). Therefore, it was asserted that the relationship between attributes of employee is moderated by job demands. Job demand was proposed as moderator because it is suitable within the context of this study which is the public sector. Therefore, this study investigates the role of employee motivation, self-efficacy, and employee participation in employee's engagement of workers in IT departments of Malaysia's public sector. Understanding these dynamics can provide valuable information that can improve employee engagement.

## **2. LITERATURE REVIEW**

### **2.1. Underlying Theory**

There are two theories underpinning this study, Self-Determining Theory (SDT) and Kahn's Personal Engagement Theory.

Deci and Ryan (2000) postulated that the SDT and the purpose of employee engagement are inextricably linked through the nature of human behaviour on the job. The extent at which employees invest themselves in work depends on how much autonomy he or she is given to achieve goals. Employee disengagement and personal engagement were linked to the SDT because the employee's behavioural qualities is the primary source of motivation at both the professional and personal levels (Osbourne & Hammoud, 2017; Adams, Little, & Ryan, 2017). In other words, the SDT is connected to both employee disengagement and personal engagement because an individual's state of mind significantly influences the motivation behind their professional and personal endeavours.

Kahn's Personal Engagement Theory can be used as a reference even though the main goal of this study is to evaluate the moderating effect of job demands on the attribute of employee. The theory helps this study to comprehend the employee engagement and its determinants, notably in the IT department of the Malaysian public sector. The theory stated that, engagement is the ability of an individual to contribute their "full self" to work. According to this view, a loyal worker takes responsibility for his or her actions and duties without being asked or obliged to do so. Workers should feel confident in "bringing their complete selves" to work without fear of negative consequences.

Kahn's theory of engagement overlaps with SDT and demonstrates its role in the development of work engagement. Kahn's theory addresses certain traits to increase engagement. In terms of its relationship with engagement, SDT has been extensively explored and scientifically validated (Schreurs, Van Emmerik, Van den Broeck, & Guenter, 2014; Van den Broeck, Ferris, Chang, & Rosen, 2016).

### **2.2. Employee Engagement (EE)**

According to Schaufeli (2013), "employee engagement" is the act of attaching organizational members' identities to their employment such that, the employee engagement and work engagement are interchangeable. Through engagement, employees use their roles to express themselves physically, psychologically, and emotionally (Kahn & Heaphy, 2013). The operational definition of engagement is a contented, pleasurable mental state that is connected to one's work and is characterized by vigour, dedication, and absorption (Kahn 1990; Schaufeli & Bakker, 2010). Vigour is defined as having a lot of energy and mental stamina when working, being willing to put up the effort necessary to complete a task, and persevering despite obstacles (Zaidi, Wajid, Zaidi, & Zaidi, 2013). Dedication is the quality of being committed to a task (Jaya & Ariyanto, 2021). An employee who is dedicated will be totally focused on their work and will experience both struggle and satisfaction (Hülshager, Alberts, Feinholdt, & Lang, 2013). Absorption is the state of being totally engrossed and blissfully involved in one's job such that one finds it challenging to

disengage from it (Bakker & Schaufeli, 2014). This study intends to close the empirical gap that develops when research hypotheses needed to assess or empirically demonstrate the role of job demand between the attributes of employee. The empirical gap can be explained in a variety of circumstances, according to prior researchers' views. For instance, (i) the study of employee engagement conclusions were from practitioner publications and were based more on practice than on actual research (Bailey, 2022); (ii) the relevance and importance of the influence of all variables cannot be demonstrated by a single fixed model (Chandani, Mehta, Mall, & Khokhar, 2016; Saks, 2019); and (iii) practitioners must first comprehend the elements that contribute to workplace engagement (Bakker & Sanz-Vergel, 2013).

### **2.3 Employee Participation (EP)**

Employee participation can be divided into two: delegative participation and consultative participation. The term "delegative participation" describes how an individual or group of employees participates in decision-making at work (Ejere & Jarbandhan, 2019). According to Khalid and Nawab (2018), delegative participation involves entrusting decision-making duties to others in order to accomplish organizational goals. With the deployment of comprehensive quality management and self-managed work teams, employee input in decision-making has significantly increased (Khalid & Nawab, 2018). Employee engagement can be negatively impacted by inadequate management, according to research on employee participation (Bale & Pillay, 2021). When employees do not have excellent working connections with their superiors and are not included in decision-making processes, they are more likely to lose interest in their work (Soni, Jhajharia, & Bali Nag, 2022). Managers must show concern and commitment for their employees in order to create an environment that encourages participation (Qureshi & Khalid 2015). Higher levels of employee engagement must be adopted by fostering an environment where managers actively participate in motivating their employees (Osborne & Hammoud, 2017). Consultative participation involve the input of employee but the manager retain control over the target (Gómez-ruiz, Rodríguez-rivero, & Gómez-ruiz, 2017). A past related literature had revealed that consultative participation of managers at work place can influence employee engagement (Osborne & Hammoud, 2017).

### **2.4 Employee Motivation (EM)**

Employee motivation in this study is operationalized based on the assessment used in a study conducted by Khan and Iqbal (2013). The assessment measures how strongly a person rates both intrinsic motivation and extrinsic motivation received at their workplace. Individuals are intrinsically motivated when they seek enjoyment, interest, satisfaction of curiosity, self-expression, or personal challenge in their work. Individuals are extrinsically motivated when they engage in work purposely to obtain some goal that is not part of the work (Renninger, 2000). According to Ryan and Deci (2000) and Swiatczak (2021), intrinsic motivation is the act of engaging in an activity for its own sake rather than for rewards or repercussions from others. Employees who are intrinsically motivated often become completely engrossed in their work because they are actually enjoying it. This type of motivation emphasises the intrinsic value of the action more than outside rewards. A recent study had also supported the advantages of intrinsic motivation (Fishbach & Woolley, 2022). Extrinsic motivation, on the other hand, is influenced by outside elements like compensation and rewards. Employees are highly motivated and contribute to the success of the company when they believe their income is fair and appropriate for their job

obligations (Jamal Ali & Anwar, 2021). In the modern workplace, employees' motivation significantly affects employee engagement. Tying pay to performance and skills had been linked to higher employee engagement (Feraro-Banta & Shaikh, 2017). Salary can also promote employees' motivation to perform their jobs to the highest standard, which can raise their degree of commitment (Gulyani & Sharma, 2018). Consequently, this study investigates employee engagement in relation to both intrinsic and extrinsic motivation.

## **2.5 Self – Efficacy (SE)**

According to Bandura (2006), "self-efficacy" refers to a person's confidence in their capacity to carry out job duties successfully in light of their unique competencies. Self-efficacy can be recognized as a psychological component impacting one's impression of employee engagement (Puja Kesuma et al., 2021). Luthans, Youssef, and Avolio (2007) define perceived self-efficacy as the conviction that one can put forth enough effort to finish difficult tasks. Each employee's level of self-efficacy has a high impact on how well they handle problems. The four main sources of self-efficacy identified by Bandura (2006) for the development of self-efficacy are verbal persuasion, vicarious experiences, emotional arousal, and mastery experiences. Employee's motivational, emotional, cognitive, and decision-making abilities can be improved by utilising these four resources. A past research has shown that individuals who are more self-efficacious have better problem-solving skills (Sekerdej & Szwed, 2021). Employees are more inclined to tackle issues with confidence and show greater endurance while overcoming problems when they have a high sense of self-worth. Thus, self-efficacy is a critical factor influencing employee engagement.

## **2.6 Job Demand (JD)**

The moderating effect of job demands on the connection between employee attributes (EP, EM, and SE) was investigated in this study. Despite existing literature addressing job demands as an independent variable affecting employee engagement, there are few studies addressing job demands as a moderator of employee engagement. Some studies associate elements like job satisfaction, job characteristics and organizational citizenship behaviour to job demand (Guglielmi et al., 2016; Ayob & Nor, 2019). As the moderating function of job demands in connection to employee engagement has not been thoroughly researched, this indicates a vacuum in the literature's empirical coverage. Organizations can build ways to manage job demands and improve employee engagement by better understanding the moderating impact of job demands, which can offer insightful information about the complex dynamics at play. By filling in this empirical gap, this study adds to the body of knowledge on employee engagement.

## **2.7 Hypothesis Development**

The hypothesis of the study was developed from theoretical and empirical evidence purposely to support the conceptualization of job demand as a moderator between the attributes of employee.

### **2.7.1. Theoretical evidence**

According to job demand resources JD-R model state-of-the-art by Bakker and Demerouti (2007), job demand can be applied in a wide range of occupation and it can be used to improve attributes

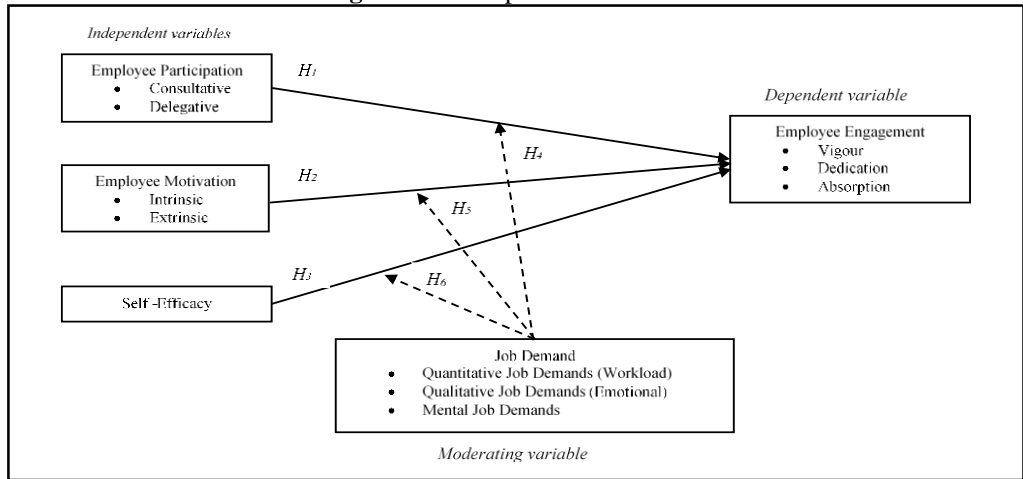
of employee such as employee well-being, employee performance and employee engagement. Also, a theoretical assertion made by Ayob and Nor (2019) based on the situation of Malaysia automotive manufacturing company illustration, the authors postulated that job demand is best used as a moderator between job related attributes and employee engagement. Thus, this study conceptualizes job demand as a moderator and also show an empirical evidence to support the claim.

### **2.7.2. Empirical evidence**

The conceptualization of job demand as a moderator has been supported by some past related empirical studies. The moderation effect of job demand was examined by Rai and Chawla (2022) on how the work engagement mediated the relationship between job resources with job satisfaction and organization engagement. The authors concluded that job demand should be adequate in order to have positive influence on job satisfaction and organization engagement. Also, job demand was used as an independent variable on organization commitment, it was deduced that job demand had a negative influence on organization commitment (Priyono, Irawanto, & Suryadi, 2022). The three type of job demands (job responsibility, time urgency and work load) were established to have a positive relationship with employee engagement in a meta-analytic test by Crawford, LePine, and Rich (2010). Furthermore, an integrative literature review of 34 empirical studies on employee engagement and innovative behaviour in relation to JD-R model deduced that engaged employees are more likely to behave innovatively to deal with high job demand. The review suggested that the integrated conceptual framework that refines the original JD-R model is needed (Kwon & Kim, 2020). In the view of the aforementioned literatures, this study conceptualizes job demand as a moderator for the attributes of employee (EP, EM and SE) in relation to employee engagement which prompted the following hypothesis as stated below and depicted in Figure 1;

- H<sub>1</sub> Employee engagement in Malaysian's public sector's IT department is significantly influenced by employee participation.
- H<sub>2</sub> Employee engagement in Malaysian's public sector's IT department is significantly influenced by employee motivation.
- H<sub>3</sub> Employee engagement in the Malaysian's public sector's IT department is significantly influenced by self-efficacy.
- H<sub>4</sub> The relationship between employee engagement and participation in the Malaysian's public sector's IT department is moderated by job demands.
- H<sub>5</sub> The relationship between employee engagement and motivation in the Malaysian's public sector's IT department is moderated by job demands.
- H<sub>6</sub> The relationship between employee engagement and self-efficacy in the Malaysian's public sector's IT department is moderated by job demands.

**Figure 1: Conceptual Framework**



### 3. METHODOLOGY

Employees who work in the Malaysian public sector's IT division in several government agencies represent the population study. Respondents were selected using the convenience sampling technique. This study employed an online cross-sectional survey method and a questionnaire with six sections: (1) Demographic profile of the respondents, (2) Employee engagement, (3) Employee participation, (4) Employee motivation, (5) Self-efficacy, and (6) Job demand. All the above listed employee's attribute are second order constructs except self-efficacy which was the only first order construct considered in the model. The number of items used to measure each construct are detailed in Table 1. EE was measured on a 5-point Likert scale of 1-5 (1= never, 2 = a few times a year or less, 3 = a few times a month, 4 = once a week, 5 = always). EP and EM were measured on a 5-point Likert scale of 1-5 (1= strongly disagree, 2 = disagree, 3 = neutral, 4 = disagree and 5 = strongly agree). SE was measured on a Likert scale of 1- 4 (1= not at all true, 2 = barely true, 3= moderately true and 4 = exactly true). JD was measured on 5 points Likert scale of 1-5 (1= never, 2 = rarely true, 3= sometimes true, 4=usually true, 5 = always true).

**Table 1: Specification of items used to measure each construct**

First order constructs	Number of Items	Second order constructs
Vigour	6 items	Employee engagement (17 items)
Dedication	5 items	
Absorption	6 items	
Consultative	10 items	Employee participation (14 items)
Delegative	4 items	
Intrinsic	8 items	Employee motivation (16 items)
Extrinsic	8 items	
Self-efficacy	10 items	-
Work load	4 items	Job demand (12 items)
Emotional	4 items	
Mental	4 items	

### **3.1. Research Instrument**

The Utrecht Work Engagement Scale (UWES), created by Schaufeli and Bakker (2003), served as the basis for the employee engagement items. The items on employee participation (consultative and delegative) were based on Bhatti (2013). The Generalized Self-Efficacy Scale (GSE), developed by Schwarzer and Jerusalem (1995), was employed to evaluate self-efficacy in this study, and the items on employee motivation were adapted from Khan and Iqbal (2013). This study assessed job demand via items modified from the validated English version of the questionnaire on the JD-R by Lequeurre, Gillet, Ragot, and Fouquereau (2013).

The expert-driven pre-tests was employed to identify issues with survey questions or response options involved two academic experts from local universities as well as one IT industry expert. A pilot study was carried out on small fraction of the sample population. The reliability of all the first order construct were  $> 0.70$ . SmartPLS version 4 software was used to analyze the data.

## **4. RESULTS**

### **4.1. Background of the Respondents**

Employees of four government agencies were considered in this study. Overall, feedback was received from 336 employees in the IT department of various Malaysia's government agencies. However, the total number of workers who received the online questionnaire were unknown therefore, the response rate cannot be quantified. There was no missing data because each question was mandatory before the next question can be attempted. Considering the minimum sample size required for partial least square-structural equation modelling (PLS-SEM) postulated by Kock and Hadaya (2016) using inverse square root and gamma exponential method, the sample of 336 respondents is adequate for this study. The initial descriptive statistics of the constructs revealed that the kurtosis and skewness values were within acceptable limits.

The respondents consist of 135 women (40.2 percent) and 201 men (59.8%). Academic levels were categorized into five levels in which 129 respondents had secondary education (38.4%), while 98 respondents were bachelor's holders (29.2%), 84 respondents were diploma and certificate holders (25%), and 25 of them have at least a master's degree (7.4%). More than half (173 respondents) were assistant executives (51.5%), while the rest (48.5%) were holding various job positions such as assistant director or second director, senior executives, executives, drivers, and clerks. When asked about their working experience, only 48 and 50 of them had work experience greater than 21 years (14.3%) and between 16 and 20 years (14.9%) respectively, 53 of the respondents had working experience ranging from 11 to 15 years (15.8%), and 78 of them have working experience ranging from 6 to 10 years (23.2%). A total of 107 respondents have less than 5 years of working experience (31.8%).



#### 4.2. Measurement Model

The measurement model used was reflective-formative model. The reflective model was used for measuring the first order constructs while the formative model was utilized for the structure of second order constructs which are the main target of the study.

**Reflective Model:** All the items defined in Table 1 for each construct were used as reflective measurement model for all the first order constructs. The validity and reliability of the data were evaluated using internal consistency reliability (Cronbach alpha, composite reliability rho\_a and composite reliability rho\_c) and convergence validity was measured with average variance extracted (AVE). Hair Jr, Sarstedt, Hopkins, & Kuppelwieser (2014) stated that every loading should be  $>0.708$ . However, the authors also stated that not all indicators with  $<0.708$  need to be removed but can be considered to be retained if (i) the CR  $\geq 0.708$  or (ii) the AVE  $\geq 0.50$ . In order to achieve the required internal consistency as well as the convergence validity value, some items were deleted from the reflective measurement model. Thus, all the AVE values exceeded 0.5 and all the attributes of internal consistency were  $> 0.70$ . The details of the results were shown in Table 2.

**Table 2:** Internal Consistency Reliability and Convergent Validity (AVE)

Constructs	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	AVE
Absorption	0.702	0.716	0.833	0.626
Consultative	0.95	0.953	0.958	0.694
Dedication	0.875	0.878	0.909	0.667
Delegative	0.807	0.852	0.864	0.615
Extrinsic	0.789	0.789	0.856	0.543
Intrinsic	0.901	0.906	0.925	0.673
Mental	0.894	0.901	0.927	0.762
Self-efficacy	0.906	0.915	0.924	0.602
Vigour	0.894	0.898	0.926	0.758
Work load	0.770	0.784	0.896	0.812

This study performed discriminant validity using the heterotrait-monotrait ratio (HTMT) matrix. Gold, Malhotra, and Segars (2001) stated that the HTMT value should be less than 0.90, whereas Kline (2011) thought it should be less than 0.85. If the value is more than 0.90, discriminant validity cannot be established. This study achieved the discriminant value as the HTMT was less than 0.90 as shown in Table 3.

**Table 3: Discriminant Validity: Heterotrait-Monotrait Ratio (HTMT) -Matrix**

<b>First order constructs</b>	Absorption	Consultative	Dedication	Delegative	Emotional	Extrinsic	Intrinsic	Mental	Self-efficacy	Vigour	Work load
Absorption											
Consultative	0.372										
Dedication	0.89	0.467									
Delegative	0.314	0.685	0.333								
Emotional	0.105	0.102	0.154	0.047							
Extrinsic	0.439	0.623	0.526	0.478	0.19						
Intrinsic	0.565	0.748	0.694	0.543	0.199	0.853					
Mental	0.313	0.179	0.247	0.115	0.413	0.127	0.188				
Self-efficacy	0.536	0.293	0.378	0.24	0.189	0.319	0.361	0.482			
Vigour	0.748	0.396	0.885	0.257	0.165	0.467	0.62	0.135	0.32		
Work load	0.265	0.059	0.08	0.084	0.426	0.086	0.049	0.559	0.383	0.036	

In order to ensure that all the first order constructs were actually representing the second order construct designated to them, latent variable computation in a formative model was conducted. It was observed that all the first order construct is significantly representing the second order construct (p-value < 0.05) shown in Table 4.

**Table 4: Path Coefficient of the first order construct (self-efficacy) and second order constructs**

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ((O/STDEV))	P values
Absorption <- EE	0.292	0.293	0.010	28.104	0.00
Consultative <- EP	0.627	0.629	0.034	18.715	0.00
Dedication <- EE	0.375	0.376	0.008	49.656	0.00
Delegative <- EP	0.463	0.461	0.030	15.194	0.00
Emotional <- JD	-0.13	-0.129	0.050	2.628	0.009
Extrinsic <- EM	0.446	0.446	0.020	22.188	0.00
Intrinsic <-EM	0.628	0.628	0.024	25.993	0.00
Mental <- JD	0.209	0.207	0.052	3.99	0.00
SE1 <- SE	0.219	0.22	0.030	7.277	0.00
SE10 <- SE	0.144	0.143	0.020	7.016	0.00
SE4 <- SE	0.142	0.141	0.023	6.104	0.00
SE5 <- SE	0.138	0.137	0.024	5.782	0.00
SE6 <- SE	0.145	0.143	0.021	6.928	0.00
SE7 <- SE	0.181	0.182	0.022	8.118	0.00
SE8 <- SE	0.173	0.174	0.021	8.451	0.00
SE9 <- SE	0.149	0.15	0.023	6.605	0.00
Workload <- JD	0.936	0.928	0.022	42.725	0.00
Vigour <- EE	0.445	0.444	0.015	29.071	0.00

**Formative Model:** Formative measurement was used to assess the second order construct based three criteria for choosing between formative and reflexive models as explained by Hanafiah (2020); (i) nature of the construct, (ii) direction of causality between the indicators and the latent construct, and (iii) the indicators' characteristics used to measure the construct. Formative measurement requires indicators to be the cause of the latent construct. In this study, the first order constructs of vigour, dedication and absorption were theoretically specified to form employee engagement. The same reasoning was also used for all the second order construct. Thus, the collinearity test statistics was used to affirm the eligibility of the second order constructs from the first order construct, and according to Kock (2015), if all VIFs are equal to or less than 3.3, the model is free of common method bias. Table 5 showed the variance inflation factor (VIF) of all the first order constructs in relation to the second order constructs were less than 3.3 expect dedication as a sub-construct of employee engagement which was exactly 3.331. The outer weight and the outer loading were also verified and all the p-value were < 0.05.

**Table 5:** Collinearity statistics of the second order construct

First order ->Second order	VIF
Absorption -> EE	2.197
Consultative -> EP	1.832
Dedication -> EE	3.331
Delegative -> EP	1.832
Emotional -> JD	1.253
Extrinsic -> EM	2.116
Intrinsic -> EM	2.116
Mental -> JD	1.381
Vigour -> EE	2.772
Work load -> JD	1.359

### 4.3 Structural Model

The structural model was used to test both the linkages between the model constructs and the hypotheses of the study. The range of the coefficient of determination ( $R^2$ ) value should range between 0 and 1 (Kamarudin et al., 2021). The adjusted R value of the model formulated is 0.409. The close the  $R^2$  to 1, the higher the variance value contributed by the exogenous constructs to the endogenous construct. Kamarudin et al. (2021) also stated that if the predictive accuracy ( $Q^2$ ) is greater than 0, the model is relevant. The value of  $Q^2$  for the structural model is 0.381 as shown in Table 6, thus, the structural model has some level of prediction based on the hypotheses and the data representing the population considered in the study.

**Table 6:** Prediction summary ( $R^2$  and  $Q^2$ )

Dependent variable	$R^2$	$R^2$ adjusted	$Q^2$ predict
EE	0.422	0.409	0.381

Kamarudin et al. (2021) also highlighted that the relationship between construct and hypothesis is acceptable if  $t > 1.96$  and  $p < 0.05$ . According to the results shown in Table 7, this study concludes that only employee motivation and self-efficacy significantly influenced employee engagement. The supported decision has lower confidence interval bias corrected and upper confidence interval bias corrected which does not include zero.

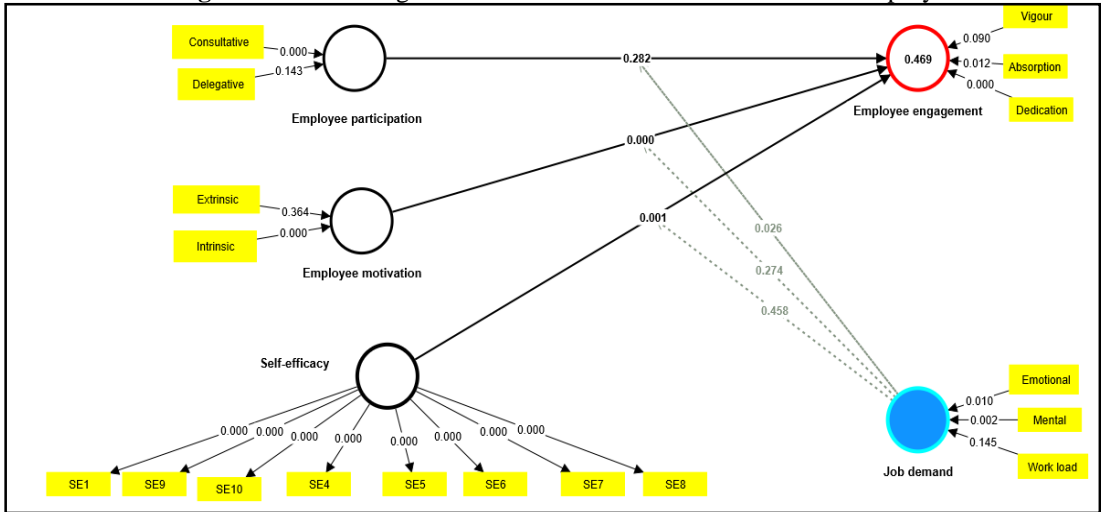
**Table 7:** Path Coefficient of the structural model with Confidence Interval Bias Corrected

	<b>Path coefficient</b>	<b>T statistics ( O/STDEV )</b>	<b>P values</b>	<b>Lower CI BC 5.00%</b>	<b>Upper CI BC 95.00%</b>	<b>Decision</b>
EM -> EE	0.518	7.864	0.000	0.416	0.633	Supported
EP-> EE	0.014	0.216	0.415	-0.085	0.129	Not Supported
JD -> EE	0.092	1.112	0.133	-0.186	0.161	Not Supported
SE -> EE	0.186	3.581	0.000	0.098	0.267	Supported

#### 4.4 Moderating

A p-value  $< 0.05$  is required to prove the moderating effect of job demand on the attributes of employees. The results showed that job demand had no effect on the relationship between employee motivation and employee engagement and also has no effect on the relationship between self-efficacy and employee engagement. Employee participation and engagement may have a weaker correlation with those who have more job demands and a stronger correlation with those who have lower job demand. Thus, the study concludes that job demand is a moderator between employee participation and employee engagement with moderating effect of 0.282 as shown in Figure 2. Table 8 showed the details of path coefficient and the bias corrected confidence interval limit to affirm the path coefficient results.

**Figure 2: Moderating effect of Job demand on the attributes of employee**



**Table 8: Moderating effect of job demand**

	Path coefficient	T statistics ( O/STDEV )	P values	Lower CI BC 5.00%	Upper CI BC 95.00%	Decision
JD (MoV) x EP -> EE	-0.134	1.941	0.026	-0.239	-0.042	Supported
JD (MoV) x EM -> EE	-0.008	0.103	0.459	-0.119	0.126	Not supported
JD (MoV) x SE -> EE	0.048	0.991	0.161	-0.02	0.141	Not supported

## 5. DISCUSSION

This study discovered that employee motivation and self-efficacy are capable of optimizing employee engagement among public employees. Past studies (Bakker & Demerouti, 2018; Bedarkar & Pandita, 2014; Sultan & Suhail, 2019; Tate, Lartey, & Randall, 2019) have also found similar results considering employee motivation. To create and maintain high levels of motivation among employees, particularly among public servants, and to enhance productivity within a given time frame, the government must take into account variety of stimulating features which may include pay, perks, time off, and opportunities for professional growth. Public employees occasionally become more motivated to provide their services to the public and further the goals of the government when they feel the importance of their job. Motivation at work has a direct impact on their engagement with the organization, which in turn affects the nation's performance. Competent management, opportunities for innovation, rewards, and cultivating a participative mind-set are all effective ways to motivate public servants. These techniques can aid the government in retaining personnel who are genuinely enthusiastic about their work.

Considering self-efficacy as second attribute which influence employee engagement. Past studies had also found similar results (Donohue, Underwood, & Hoffman, 2020; Huang, Ma, & Meng,

2018; Na-Nan & Sanamthong, 2020). Self-efficacy, particularly among public employees, can be summarised as their confidence in their capacity to carry out tasks and produce the intended results that meet the government agenda. Employee perception of their own skills is shaped by this notion, which also has an impact on their motivation, thoughts, and conduct. Self-efficacy beliefs are developed by cognitive, affective, motivational, and selection processes. Public servants' self-efficacy tends to rise steadily and consistently as they gain pertinent knowledge and experience. The likelihood of suffering stress and despair at work can be decreased, which will raise the overall level of engagement. High levels of self-efficacy in public employees increase their likelihood of engagement and successfully completing given responsibilities to serve the country. Work direction, work collaboration and coordination, physical wellness and psychological wellness, are four practises that significantly enhance the self-efficacy of public servants Wickramasinghe and Mallawaarachchi (2022) and can be considered by the government.

The relationship between employee motivation and employee engagement, on the other hand, showed no sign of being impacted by job demands. Employee engagement and participation may be inversely correlated, with employee engagement being stronger for those with fewer job demands and weaker for those with higher job demands. The relationship between self-efficacy and employee engagement was not impacted by job demand. Deductively, among the six hypotheses suggested in this study, three hypotheses were supported ( $H_2$ ,  $H_3$  and  $H_4$ ) and three were not supported ( $H_1$ ,  $H_5$  and  $H_6$ ).

## **6. IMPLICATIONS**

### ***6.1. Empirical Implication***

This study has empirical implications as it adopts the hypothetico-deductive methodology advised by earlier scholars who suggested the scrutiny of the impact of job demands as the moderating variable between the attributes of employee (Saunders et al., 2019; Sekaran & Bougie, 2016). The employee engagement as a dependent variable on self-efficacy, motivation, and participation in the IT departments of the Malaysian public sector. Thus, the empirical gap that arises when research hypotheses need to be empirically confirmed has been achieved, as it was previously suggested by some scholars mentioned in section 2.2.

### ***6.2. Contextual and Practical Implication***

Through the conceptual framework developed, this study has a contextual implication by adding to the body of knowledge in the management field, specifically to the employees in the public sector. Future research can get a comprehensive understanding of the attributes of employee engagements in the IT department of Malaysian public sector, including employee participation, employee motivation, and self-efficacy, as well as job demands as a moderating variable. This study also has practical implications, as it provides guidance to organizations in the public sector on how to enhance employee engagement among their employees. The empirical evidence obtained by this study can be used as a trustworthy reference by the government and the public sector to understand the situation of the country's public sector employees because it relates to the vital component that can influence employee engagement in the Malaysian context, specifically in

the Malaysian public sector's IT department. In other words, as the public sector can improve the country's governance and economic expansion and the government can use the findings to improve employee engagement among public servants.

### **6.3. *Theoretical Implication and Theoretical Contribution***

Theoretical implications suggest that the findings of this study are important for the underpinning theories discussed in the literature review, which are both self-determining theory (SDT) and Kahn's engagement theory. As discussed, Kahn's theory of engagement overlaps with SDT and demonstrates its role in the development of work engagement. Kahn's theory addresses certain traits to increase engagement. In terms of its relationship with engagement, SDT has been extensively explored and scientifically validated in relation to psychological need and job satisfaction (Deci, Olafsen, & Ryan, 2017; Schreurs et al., 2014; Van den Broeck et al., 2016). According to the findings of this study, employee motivation and self-efficacy have an impact on employee engagement, while employee participation does not have any influence on employee engagement.

The moderation analysis shows there was no influence of job demands on the relationship between employee motivation and employee engagement, as well as between self-efficacy and employee engagement. However, the relationship between employee participation and employee engagement may be weaker among individuals experiencing higher job demands and stronger among those facing lower job demands. Thus, these findings contribute by providing empirical evidence on the traits and psychological need satisfaction as discussed by both self-determining theory (SDT) and Kahn's personal engagement theory.

## **7. CONCLUSION**

Employee engagement among public servants plays a crucial role in enabling public services to navigate challenges during times of austerity and leverage incentives within the public sector to enhance organizational outcomes. Given the significance of the public sector in implementing government initiatives and enhancing national competitiveness on the globally, fostering employee engagement is imperative. Employee engagement serves as a pivotal concern for public sector leaders seeking to cultivate dedication and loyalty among their employees. By fostering a culture of engagement, public sector organizations can enhance employee satisfaction, foster effective teamwork, and sustain high levels of motivation. These outcomes, in turn, contribute to citizen well-being as well as the advancement of national values and goals. Significant approaches to optimizing motivation and self-efficacy among public servants emerge as an essential component within the public sector, as these attributes were found to significantly boost engagement among employees, enabling the realization of efficient government programs and reinforcing the nation's competitiveness internationally.

This study recommends future empirical studies to be expanded to other various departments and agencies in the Malaysian public sector and private sector so that, the findings can be generalized to all sectors and departments. Also, future studies can consider conducting a longitudinal study to comprehend employee engagement for a decisive conclusion. Furthermore, future studies can also



consider a mixed model approaches to enhance the comprehension of the factors influencing employee engagement together with the underlying justifications or explanations behind them.

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