



THE STUDY OF EMPLOYEE ENGAGEMENT OF MANUFACTURING SECTOR IN THAILAND

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Abstract

The intention of this research is to test conceptual model of the interaction between the relationships of personality traits, perceived support and employee engagement in Thailand. Accordingly, the survey was completed by 664 participants, 42% male and 58% female, the majority aged between 21 to 30 and working in factory, graduated at high school level, and earning less than or equal to 15,000 baht. This survey measured attitudes toward employee engagement, personality traits, and perceived support. The results indicated that the perceived support can moderate the relationship between personality traits and employee engagement.

Keywords: Employee Engagement, the Big Five Personality Traits, Perceived Support

Literature Review

Employee engagement

Over the past three decades, employee engagement has been a highly fashionable topic among management academicians and practitioners as the

outset of the notion in management theory in the 1990s, then turning to be prevalent in managerial practice in the 2000s. According to the nature of engagement are the relationships between organizations and employees, so the numerous researchers gave the variety definitions of engagement. Somehow,

this paper employed the theory of work engagement or employee engagement, due to in general, work engagement or employee engagement are interchangeable terms (Schaufeli, 2013). The starting point of engagement theory was by Schaufeli, Salanova, González-Romá, and Bakker, (2002), who modified Kahn's (1990) principle. This theory was named as employee engagement, which was defined as constructive, achievement, task-associated feeling of worker such as vigorous, dedicated, and absorptive.

The big five personality traits

The big five personality model is determined as a multi-trait personality, since it blends many traits together (Hawkins, et al., 2007). Moreover, the big five model was employed in numerous empirical researches to compose the characteristics of the whole person (Tupes & Christal, 1992). According to the validity across culture and time (McCrae & Costa, 1997), this instrument was practiced and tested in several studies (Lin, 2010). However, it has a few studied the big five with engagement but the results showed inconsistent and most studied white collars, not blue collar in manufacturing such as Zaidi et al. (2013), who collected 399 samples from the state universities at Lahore in Pakistan and got the results that extraversion, agreeableness, conscientiousness, and openness had positive relations with engagement, except neuroticism; Ongore (2014), who gathered the data from the 118 staff of the Kastamonu University in Turkey and found that only openness and agreeableness can predict engagement. This paper employs the definitions of each element of the big five from Robbins and Judge (2011) as following: extraversion describes friendly, aggressive personalities; agreeableness describes courteous, reciprocating, and

confiding; conscientiousness describes accountable, reliable, persevering, and systematized; neuroticism describes agitated, depressive, frightened; openness to experience describes creative, sympathetic, prying.

Perceived support

Kreitner and Kinicki (2010) stated that social support is a great deal of perceived assistance originated from social interdependence. Some studies found that these kinds of support can influence engagement, somehow it is rare in the studies about perceived support with engagement, moreover the findings displayed incongruous and almost studied white collars, not blue collar in manufacturing such as the work of Ahmadi et al. (2014), which collected 310 samples from the staff in top leader university of Iran, the results indicated that POS had a positively significant impact on engagement; the paper of Ariani (2015), which gathered 191 samples from the employees in private firms at Yogyakarta city in Indonesia, the outcome showed that there was insignificant impact of coworker relations and supervisor relations on engagement.

Besides, there are a few studies about investigating the moderating effects of perceived support on the relationship between personality traits and engagement as well. Hence, this study is interested in studying perceived support at the workplace both as independent variable and moderator. This paper uses the definitions about perceived support as follows: perceived organizational support (POS) is a level of workers' trust that the firm appreciates their dedication and is concerned on their welfare (Robbins and Judge, 2011); Perceived supervisor support (PSS) is the employees' perception of the level of supervisors' concern about their contribution and their

welfare (Kottke & Sharafinski, 1988); perceived co-worker support (PCS is defined by Beehr and McGrath 1992)) as coworkers' willingness to assist each other.

The aims of this study are to reveal the effects of personalities and support

from organizations, supervisors and co-workers on engaged behaviors and moderating impacts of perceived support from organizations, supervisors and co-workers on the relations between five traits and employee engagement. Figure 1. indicates the conceptual framework of this study.

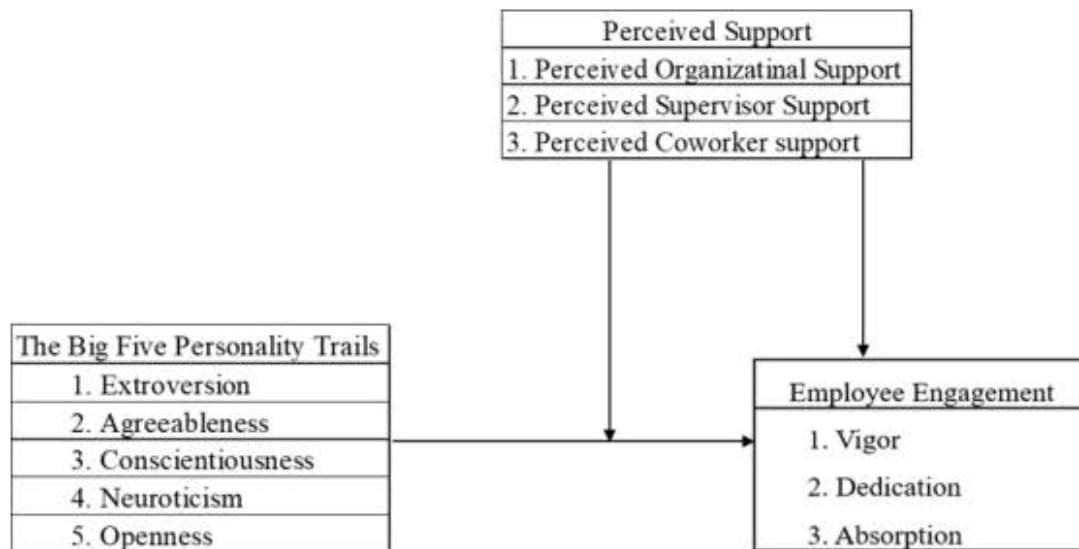


Figure 1. The Conceptual Framework of This Study

Research Hypotheses

The relationship between big five personality and employee engagement

Brief and Weiss (2002) suggested that extraverts have the tendency to have vigor (one of the core elements of employee engagement). After that conversely, Zellars, Hochwarter, Perrewé, Hoffman, and Ford (2004) revealed an adverse relation of extroversion and burnout (the opposite of engagement). Later in 2006, Rich explored that extraversion has a positive relationship with employee engagement. Accordingly, it raises the question of whether such these events may happen to an employee in Thailand or not, therefore the 1a hypothesis is derived as follows:

H 1a: Extraversion has a positive relation with engaged behavior.

Morgeson, Reider, and Campion (2005) advised that in order to obtain excellent results in their work, engaged employees need teamwork. Hence because agreeable workers require teamwork, they are easier to engage than workers who have less engagement. Wefald, Reichard, and Serrano (2011) found that agreeableness can forecast the engagement of employees in the workplace. From the outcomes of above research, it triggers this paper to propose hypothesis as follows:

H1b: Agreeableness has a positive relation with engaged behavior.

Rich (2006) found that conscientiousness has a positive relationship with employee engagement. In the meantime, Mostert and Rothmann (2006) conducted a survey to investigate 1,794 participants who are African cops in southern area and the findings showed that conscientiousness was one of the predictors of engagement. Then Teven (2007) found that conscientiousness may have a negative correlation with burnout (the opposite of engagement). For this reason, it inspires to hypothesize as underneath.

H1c: Conscientiousness has a positive relation with engaged behavior.

Langelan, Bakker, Doornen, and Schaufeli (2005) employed UWES and NEO-Five Factor Inventory scales to measure the big five personality traits, found that the burned-out workers had higher degree of neuroticism than non-burned-out workers and also suggested that neuroticism is an imperative part of burnout, it is not only able to predict burnout but also significantly forecast employee engagement, moreover the findings showed that it had a positive relation of engaged manner and the desire for steadiness (the opposite of neurotic trait). For the reasons mentioned above, the hypothesis 1d was proposed as follows:

H1d: Neuroticism has a negative relation with engaged behavior.

Zaidi, Wajid, Zaidi, Zaidi, and Zaidi (2013). disclosed a constructive relation of openness and engaged behavior. Afterword, Ongore's (2014) research demonstrated that openness to experience had positive and significant correlations with all sub-dimensions of engagement, which are physical engagement, emotional engagement, and cognitive engagement. On the other hand,

openness was found that normally, it was not related to engagement (Inceoglu & Warr, 2011). In order to find out that it has the positive relationship between openness and engagement or not, the hypothesis 1e was proposed as following:

H1e: Openness to experience has a positive relation with engaged behavior.

The relationship between perceived support and employee engagement

In 1999, O'Driscoll and Randall tested the role of POS on employee engagement for dairy employees in Ireland and New Zealand. The outcomes showed that it had a significant relation of employee engagement and perception of supporting from organization. This finding was supported by the work of Saks (2006), which also found that POS was a critical factor which can predict employee engagement. Accordingly, the hypothesis 2a was posited as follows:

H2a: Perceived organizational support has a positive relation with engaged behavior.

One of the foundations of employee engagement is a direct supervisor who is trustworthy as a chief of engagement knowledge (Bates, 2004; Frank, Finnegan, & Taylor, 2004). Good supervisors, who encourage good performance from their subordinates and concern for the welfare of employees (Leiter & Maslach, 1988). Then Hakanen, Bakker, and Schaufeli (2006) added supportive evidence for the relation of supporting from superintendents and engaged behavior by commenting that a mentoring from supervisors has a positive relation to engaged behavior. Accordingly, the hypothesis 2b was hypothesized as follows:

H2b: Perceived supervisor support has a positive relation with engaged behavior.

The results of the cross-sectional research by May et al. (2004) as well as Schaufeli and Bakker (2004) demonstrated that the function of co-worker support had a constructive impact on two elements (vigorous and dedicated) of employee engagement. Moreover, in some engagement literature, co-worker support was determined as job resources, which can nurture individual development, diminish job demands, and encourage workers to achieve corporate objectives (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007), which leads to promote the engagement feeling in employees. Hence the hypothesis 2c is proposed as follows:

H2c: Perceived co-worker support has a positive relation with engaged behavior.

The moderating effect of perceived support on the relationship between the big five personality and employee engagement.

Certain researchers such as Djurkovic, McCormack, and Casimir (2008) identified the perceived assisting from organization as a moderator in the relation of bullying in the workplace and turnover intention, but it is very rare for organizational support to be seen as a moderated determinant of a relation between personal characteristics and employee engagement. Moreover, POS was found that it acted as a moderator in certain studies such as the research of Duke, Goodman, Treadway, and Breland (2009), who surveyed 338 participants from two retail service companies. The results demonstrated the moderating impact of acknowledged supporting from organization on workers' minds and

outcome relationships. As the power of POS in moderating the relationships of two aforesaid studies, it is possible to use this logic to find out the moderating effect of perceived support on relations of personal characteristics and employee engagement, which led to propose hypotheses as following:

H3a: The relation between extroversion and engaged behavior is moderated by perceived organizational support.

H3b: The relation between agreeableness and engaged behavior is moderated by perceived organizational support.

H3c: The relation between conscientiousness and engaged behavior is moderated by perceived organizational support.

H3d: The relation between neuroticism and engaged behavior is moderated by perceived organizational support.

H3e: The relation between openness to experience and engaged behavior is moderated by perceived organizational support.

H4a: The relation between extroversion and engaged behavior is moderated by perceived supervisor support.

H4b: The relation between agreeableness and engaged behavior is moderated by perceived supervisor support.

H4c: The relation between conscientiousness and engaged behavior is moderated by perceived supervisor support.

H4d: The relation between neuroticism and engaged behavior is moderated by perceived supervisor support.

H4e: The relation between openness to experience and engaged behavior is moderated by perceived supervisor support.

H5a: The relation between extroversion and engaged behavior is moderated by perceived coworker support.

H5b: The relation between agreeableness and engaged behavior is moderated by perceived coworker support.

H5c: The relation between conscientiousness and engaged behavior is moderated by perceived coworker support.

H5d: The relation between neuroticism and engaged behavior is moderated by perceived coworker support.

H5e: The relation between openness to experience and engaged behavior is moderated by perceived coworker support.

2014). Based on the information of the Thai workforce on January 2017 from the national statistical institution of Thailand, the total employees in Thailand was 37.21 million persons, which can be separated into 13 sectors. The target population of this study is employees in manufacturing sector, which is around 6.21 million people.

Research instruments/questionnaire

Employee engagement. This section employs the Utrecht Work Engagement Scale (UWES), which was improved to predict engagement (Schaufeli & Bakker, 2003) and comprises three composite angles of engaged behavior: vigorous, dedicated, and absorptive.

The big five personality traits. This section consists of the big five personality traits scale, which is consisted of five traits: extroverted, agreeable, conscientious, neurotic, and open to experience from the work of Dant, Weaven, and Baker (2013), which originally adapted from Goldberg (1992).

Perceived support. The nine items of perceived organizational support was adapted from Eisenberger, Cummings, Armeli, and Lynch (1997) by Woo and Chelladurai (2012), six items of perceived supervisor support was adapted from Anderson, Coffey, and Byerly (2002) by Woo and Chelladurai (2012), and four items of perceived coworker support was designed by O'Driscoll, Brough, and Kalliath (2004), which was adapted from O'Driscoll (2000).

Methodology

Sampling procedures and Sample profiles

In case of this study, since all workers in Thailand were separated into 13 industrial sectors. Then this study picked one of these industrial sectors, namely, manufacturing sector. After that three provinces were selected as the survey areas. In the last step, the convenience sampling, was employed to distribute questionnaires to industrial estate areas in three provinces in Thailand as follows: Bangkok, Samut Prakan, and Pathum Thani since the number of workers of these three provinces accounted for 32.1% of total workers in manufacturing sector at the end of 2014 (National Statistical Office of Thailand,

Data Analysis

EFA was employed, since it is necessary to assign elementary constructs for a group of measured variables. So, when developing scales, it should operate EFA first before analyzing confirmed

factors (CFA) as the results at the table 1 to 3.

From the Table 1 to 3, all factor loadings of each constructs higher than 0.50, composite reliability (CR) value of each latent variable is higher than 0.80, the mostly AVE values are above 0.50 and each of them lower than its CR value, which are indicators of convergent validity (Hair et al., 2010). For reliability analysis, Cronbach's alpha of 9 con-

structs together with 46 measurement variables, the α value of each variable is higher than 0.70 cut of point (Nunnally & Bernstein, 1994).

For discriminant validity (table 4), the results showed that each square root of AVE of every construct was higher than its bivariate correlation constructs, therefore this outcome displayed the discriminant validity of all constructs (Fornell & Larker, 1981).

Table 1 Measurement Development and Measurement Accuracy of Employee Engagement

Construct name	Item measures	Factor loadings	Cronbach alpha	CR	AVE	Mean	SD	Adopted paper
VI	Vi1	0.917	0.822	0.846	0.652	3.843	0.7765	Schaufeli and Bakker (2003)
	Vi2	0.849				3.782	0.7838	
	Vi3	0.628				3.633	0.8756	
DE	De1	0.928	0.848	0.827	0.557	4.128	0.7056	
	De2	0.843				4.119	0.6986	
	De3	0.507				3.857	0.7723	
	De4	0.631				3.988	0.7708	
AB	Ab3	0.938	0.803	0.862	0.678	3.663	0.7772	
	Ab4	0.739				3.845	0.7481	
	Ab5	0.780				3.810	0.7865	

Note: KMO = 0.924 ($p = 0.000$)

Table 2 Measurement Development and Measurement Accuracy of the Big Five Model

Construct name	Item measures	Factor loadings	Cronbach alpha	CR	AVE	Mean	SD	Adopted paper
EX	Ex2r	0.606	0.703	0.806	0.455	2.756	0.8792	Dant, Weaven, and Baker (2013)
	Ex4r	0.615				2.607	0.9658	
	Ex6r	0.676				2.520	0.9155	
	Ex7r	0.722				2.462	0.9150	
	Ex8r	0.742				2.502	1.0068	
AG	Ag1r	0.700	0.731	0.822	0.607	3.750	0.9357	
	Ag5r	0.825				3.533	1.0285	
	Ag7r	0.807				3.489	0.9977	
CO	Co2r	0.889	0.781	0.833	0.632	4.054	1.0465	
	Co4r	0.869				4.023	1.0206	
	Co6r	0.591				3.544	1.0412	
Neu	Ne1	0.805	0.926	0.937	0.654	2.736	1.0797	
	Ne2	0.837				2.756	1.0323	
	Ne3	0.879				2.709	1.0119	
	Ne4	0.877				2.634	1.0580	
	Ne5	0.880				2.562	1.0646	
	Ne6	0.641				2.274	1.0217	
	Ne7	0.737				2.804	1.0396	
	Ne8	0.783				2.776	1.0184	
OP	Op1	0.733	0.712	0.803	0.627	3.730	0.6999	
	Op2	0.825				3.599	0.7644	
	Op3	0.815				3.358	0.7417	

Note: KMO = 0.876 ($p = 0.000$)

Table 3 Measurement Development and Measurement Accuracy of Perceived Support

Construct name	Item measures	Factor loadings	Cronbach alpha	CR	AVE	Mean	SD	Adopted paper
PO	Po5	0.860	0.807	0.871	0.628	3.407	0.8074	Woo and Chelladurai (2012)
	Po6	0.774				3.399	0.8250	
	Po8	0.814				3.395	0.7636	
	Po9	0.715				3.340	0.8483	
PS	Ps1	0.825	0.907	0.924	0.671	3.745	0.8165	O'Driscoll, Brough, and Kalliath (2004)
	Ps2	0.889				3.901	0.7404	
	Ps3	0.820				3.711	0.7811	
	Ps4	0.777				3.610	0.8873	
	Ps5	0.750				3.506	0.8473	
	Ps6	0.846				3.721	0.8252	
PC	Pc1	0.890	0.919	0.944	0.810	3.733	0.9496	O'Driscoll, Brough, and Kalliath (2004)
	Pc2	0.935				3.717	0.9723	
	Pc3	0.892				3.613	0.9913	
	Pc4	0.881				3.864	0.9496	

Note: KMO = 0.911 (p = 0.000)

Table 4 Discriminant Validity Analysis

	Latent constructs	Mean	SD	(EE)	(EX)	(AG)	(CO)	(Neu)	(OP)	(PO)	(PS)	(PS)
(EE)	Employee Engagement	3.849	0.576	(0.789)								
(EX)	Extroversion	2.569	0.634	-0.064	(0.674)							
(AG)	Agreeableness	3.591	0.797	0.208**	0.133**	(0.779)						
(CO)	Conscientiousness	3.874	0.864	0.333**	0.105**	0.419**	(0.795)					
(Neu)	Neuroticism	2.656	0.846	-0.270**	-0.245**	-0.387**	-0.502**	(0.809)				
(OP)	Openness	3.563	0.586	0.347**	-0.151**	0.137**	0.224**	-0.161**	(0.792)			
(PO)	Perceived Organizational Support	3.385	0.646	0.327**	0.012	0.124**	-0.001	-0.151**	0.184**	(0.793)		
(PS)	Perceived Supervisor Support	3.699	0.675	0.406**	-0.008	0.147**	0.187**	-0.164**	0.212**	0.537**	(0.819)	
(PS)	Perceived Coworker Support	3.732	0.866	0.300**	0.007	0.161**	0.078**	-0.109**	0.219**	0.384**	0.450**	(0.900)

Note: The values in parentheses are the square root of AVEs. The numbers in other cells are correlation coefficients of one factor and another.

**denotes significance level of 0.01

Hypotheses testing

The big five personality traits, perceived support, and employee engagement variables were introduced into the confirmatory factor analysis and the results showed that all data fit with the hypothesized measurement model (χ^2 (df = 783) = 2056.144, $P < 0.001$, CMIN/DF = 2.178, RMSEA = 0.042, GFI = 0.880, IFI = 0.933, TLI = 0.926, and CFI = 0.933).

After that structural equation modeling was used to test major effects and multigroup analysis was used to analyze moderating effects of perceived support

and got the results as follows: in the major effects, the findings depicted that conscientiousness ($\beta = 0.268$, $p < .01$), openness ($\beta = 0.215$, $p < .01$), POS ($\beta = 0.236$, $p < .01$), PSS ($\beta = 0.251$, $p < .01$), and PCS ($\beta = 0.125$, $p < .01$) are significantly positive related to employee engagement. On contrary, extroversion ($\beta = -0.140$, $p < .01$) and neuroticism ($\beta = -0.111$, $p < .01$) are significantly negative related to employee engagement, hence the hypotheses H1a, H1c, H1d, H1e, H2a, H2b, and H2c are supported (as in table 5 to 7).

In the multigroup analysis, it was proposed that perceived support (POS,

PSS, PCS) would positively moderate the relationship from personality traits and employee engagement. As the results from multigroup analysis, it showed that POS significantly moderated the effects of agreeableness ($p < .01$) and neuroticism ($p < .1$) toward employee engagement, as well as, PSS significantly moderated the effects of extroversion ($p < .01$), agreeableness ($p < .05$), conscientiousness ($p < .01$) and neuroticism ($p < .01$) toward employee engagement, and PCS significantly moderated the effects of neuroticism ($p < .1$) and openness ($p < .05$) toward employee engagement. Therefore, the hypotheses H3b, H3d, H4a, H4b, H4c, H4d, H5d, and H5e are upheld (table 6 to 8).

The results show that agreeableness, openness, POS, PSS, and PCS have the

positive relationships to engagement, on contrary, extroversion and neuroticism have the negative relationships to engagement. On the moderating effect results, POS shows the significant moderating effects on the relationships from agreeableness and neuroticism to engagement, as well as PSS have the significant moderating effects on the relationships from extroversion, agreeableness, conscientiousness, and neuroticism to engagement, and PCS have the significant moderating effects on the relationships from neurotic and openness to engagement.

After hypotheses testing was done, it can summarize the results as underneath tables Table 9 and 10).

Table 5 Hypotheses Assessing of SEM Analysis between IDV and DV

Hypotheses	IDV	DV	Hypothesized Sign	Beta	C.R.	P	Support
H1a	EX	EE	+	-0.14	-3.073	0.002	Yes
H1b	AG	EE	+	0.014	0.325	0.746	No
H1c	CO	EE	+	0.268	5.713	***	Yes
H1d	Neu	EE	-	-0.114	-2.861	0.004	Yes
H1e	OP	EE	+	0.215	4.561	***	Yes
H2a	PO	EE	+	0.236	5.208	***	Yes
H2b	PS	EE	+	0.251	5.846	***	Yes
H2c	PC	EE	+	0.125	3.133	0.002	Yes

Table 6 Standardized Regression Weights, Fisher's Z-test, and Squared Multiple Correlations of Perceived Organizational Support

IDV →	DV	Low POS		Hi POS		Z-Score	Sample Size
		Standardized Estimate (Beta)	P	Standardized Estimate (Beta)	P		
EX →	EE	-0.099	0.140	-0.207	0.000	-0.500	Low POS = 265 High POS = 399
AG →	EE	0.153	0.019	-0.076	0.173	-2.704***	
CO →	EE	0.249	0.000	0.331	0.000	-1.190	
Neu →	EE	-0.185	0.003	-0.079	0.119	1.952*	
OP →	EE	0.134	0.053	0.294	0.000	0.473	
		SMC of Low POS				SMC of Hi POS	
All joint →	EE	0.352				0.331	

Table 7 Standardized Regression Weights, Fisher's Z-test, and Squared Multiple Correlations of Perceived Supervisor Support

IDV →	DV	Low PSS		Hi PSS		Z-Score	Sample Size
		Standardized Estimate (Beta)	P	Standardized Estimate (Beta)	P		
EX →	EE	0.107	0.193	-0.232	0.000	-2.776***	Low PSS = 124 High PSS = 540
AG →	EE	-0.153	0.068	0.045	0.342	2.021**	
CO →	EE	0.508	0.000	0.228	0.000	-3.379***	
Neu →	EE	0.017	0.818	-0.207	0.000	-1.843*	
OP →	EE	0.088	0.277	0.286	0.000	1.437	
		SMC of Low PSS				SMC of Hi PSS	
All joint →	EE	0.561				0.303	

Table 8 Standardized Regression Weights, Fisher's Z-test, and Squared Multiple Correlations of Perceived Coworker Support

IDV →	DV	Low PCS		Hi PCS		Z-Score	Sample Size
		Standardized Estimate (Beta)	P	Standardized Estimate (Beta)	P		
EX →	EE	-0.195	0.015	-0.138	0.012	1.115	Low PCS = 191 High PCS = 473
AG →	EE	0.049	0.529	0.022	0.663	-0.423	
CO →	EE	0.216	0.007	0.249	0.000	-1.338	
Neu →	EE	-0.178	0.013	-0.104	0.027	1.66*	
OP →	EE	-0.007	0.928	0.350	0.000	2.406***	
		SMC of Low PCS				SMC of Hi PCS	
All joint →	EE	0.308				0.338	

Notes: ***p-value < 0.01; **p-value < 0.05; *p-value < 0.10

Table 9 Summary of Hypotheses Testing Results for Direct Relationship

Hypotheses	Paths of Relationship	Hypothesis Testing
H1a	Extraversion has a positive relation with engaged behavior.	Supported
H1b	Agreeableness has a positive relation with engaged behavior.	Not Supported
H1c	Conscientiousness has a positive relation with engaged behavior.	Supported
H1d	Neuroticism has an adverse relation with engaged behavior.	Supported
H1e	Openness to experience has a positive relation with engaged behavior.	Supported
H2a	Perceived organizational support has a positive relation with engaged behavior.	Supported
H2b	Perceived supervisor support has a positive relation with engaged behavior.	Supported
H2c	Perceived co-worker support has a positive relation with engaged behavior.	Supported

Table 10 Summary of Hypotheses Testing Results for Multigroup Analyses

Hypotheses	Paths of Relationship	Hypothesis Testing
H3a	The relation between extroversion and engaged behavior is moderated by perceived organizational support.	Not Supported
H3b	The relation between agreeableness and engaged behavior is moderated by perceived organizational support.	Supported
H3c	The relation between conscientiousness and engaged behavior is moderated by perceived organizational support.	Not Supported
H3d	The relation between neuroticism and engaged behavior is moderated by perceived organizational support.	Supported
H3e	The relation between openness to experience and engaged behavior is moderated by perceived organizational support.	Not Supported
H4a	The relation between extroversion and engaged behavior is moderated by perceived supervisor support.	Supported
H4b	The relation between agreeableness and engaged behavior is moderated by perceived supervisor support.	Supported
H4c	The relation between conscientiousness and engaged behavior is moderated by perceived supervisor support.	Supported
H4d	The relation between neuroticism and engaged behavior is moderated by perceived supervisor support.	Supported
H4e	The relation between openness to experience and engaged behavior is moderated by perceived supervisor support.	Not Supported
H5a	The relation between extroversion and engaged behavior is moderated by perceived coworker support.	Not Supported
H5b	The relation between agreeableness and engaged behavior is moderated by perceived coworker support.	Not Supported
H5c	The relation between conscientiousness and engaged behavior is moderated by perceived coworker support.	Not Supported
H5d	The relation between neuroticism and engaged behavior is moderated by perceived coworker support.	Supported
H5e	The relation between openness to experience and engaged behavior is moderated by perceived coworker support.	Supported

Discussion and Conclusion

This paper tested the moderating effect of perceived support on the relationship between personality traits and employee engagement. Consequently, the findings of this paper contribute to engagement theory in terms of assessing convergent and discriminant validity of all measurement items, and evaluate the moderating effect of the exchange ideology (perceived support) on the relationship between antecedents (the big five) and engagement. Present research's results extended to these interventions

can create the sense of obligation to lead employees to the greater levers of engagement.

Moreover, the outcomes of this paper offered the starting point for researchers to reinvestigate prior engagement papers in dissimilar cultural contexts by comparing different or similar results, which is benefit for further generalization, since the research was conducted in eastern workers' context, that were rarely made before.

The knowledge gained from this study can suggest some guidelines for organizations that if organizations are more cautious in evaluating their employees' personalities during recruiting times, they can create more successful rates for more engaged employees by concentrating on finding the individual, who has high activated forms of agreeableness, and openness, as well as low activated forms of extroversion and neuroticism.

In addition, research results are useful in recommending the enhancement of employee engagement with support from organizations to agreeable and neurotic employees, as well as from supervisors to extrovert, agreeable, conscientious, and neurotic employees, and from coworkers to neurotic and openness employees.

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