

## Antecedents and Consequences of Work Engagement Among Thai Employees

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The purposes of this study were, 1) to identify antecedents and consequences of work engagement in the Thai context, and 2) to examine the patterns of relationships between these antecedents and consequences of work engagement. The present study propose three potential antecedents of work engagement: 1) positive orientation, 2) career satisfaction, and 3) attitude toward organization. It also propose that work engagement would be related to three positive work behaviors ( i. e. , proactive work behavior, innovative work behavior, and organizational citizenship behavior) . The sample comprised of 608 employees working in public and private organizations in Thailand. As predicted, positive orientation, career satisfaction, and attitude toward organization are related to work engagement as its antecedents ( $\gamma = .31, .22, \text{ and } .26, p_s < .01$ ). The results indicate that work engagement predicts proactive work behavior, innovative work behavior, and organizational citizenship behavior ( $\beta = .27, .22, \text{ and } .17, p_s < .01$ ). In addition, work engagement partially mediates the relationship between these three antecedents and three types of positive work behaviors. The variances accounted for the partial mediations were between 16.4% and 37.3% . These findings offer implications for the management of human resources in organizations, including designing enriched jobs, providing a supportive work environment, and selecting candidates with positive-orientation towards job.

**Keywords:** work engagement, positive orientation, proactive work behavior, organizational citizenship behavior, Thai employees

Workplace nowadays is characterized by a shift away from a traditional working style towards collaborative teamwork. In addition, there is pressure for organizational effectiveness and sustainability that requires organizations to adapt their strategies and re-engineer their business processes. To achieve this, organizations need to have employees who can act as the ‘good soldiers’ for them. In other words, organizations need employees who are willing to psychologically invest and engage in their work. Engaged employees are characterized by vigor, dedication, and absorption (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002). In other words, they are willing to invest effort in their work, persist in the face of difficulties, and are strongly involved in their work. Gallup’s research indicated that companies with engaged workforces have higher earnings per share (EPS) and seem to have recovered from the recession at a faster rate (Gallup, 2013).

Nonetheless, recent data collected in 2014, 2015 and 2016 across 155 countries indicates that worldwide employee engagement is only 15% (Gallup, 2017). In Southeast Asia, only 19% of employees are engaged at work, wherein the figure among Thai employees is higher than the global average, at 23% (Gallup, 2017). It was estimated that actively

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disengaged employees cost the U.S. \$450 - 550 billion in lost productivity per year (Sorenson & Garman, 2013). Studies also indicate that disengaged employees cost the Asian economy U.S. \$2.5 billion (Meere, 2005). In Thailand, Gallup had estimated that the lower productivity of disengaged workers costs the Thai economy as much as U.S. \$2.5 billion each year (Ratanjee, 2005). Thus, low percentage of engaged employees is a barrier to creating high-performing organizations. Logically, work engagement has become an important concept as organizations strive to promote employees' positive work behaviors and organizational effectiveness (Schaufeli & Bakker, 2004).

Scholars have also become increasingly interested in searching antecedents of work engagement. For example, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2009) found that personal resources (e.g., self-efficacy, optimism and organization-based self-esteem) and job resources (e.g., performance feedback, autonomy, coaching, and opportunities for professional growth) are significant antecedents of work engagement. In addition, a meta-analysis of Christian, Garza, and Slaughter (2011) found that job characteristics, leadership, and personality traits are positively related to work engagement. In terms of consequences of work engagement, several empirical studies have suggested a positive relationship between work engagement and positive work behaviors. For example, high work engagement has been linked to in-role performance (Xanthopoulou et al., 2009), extra-role behavior (Bakker, Demerouti, & Verbeke, 2004). A meta-analytic study also showed the links from work engagement to task and contextual performance (Christian et al., 2011).

Several studies on work engagement have also been conducted in Thailand. Choochom (2016) investigated teachers' work engagement and found that personal resources (i.e., psychological immunity and intrinsic motivation) and job resources (i.e., justice climate, teacher-student relationships, support from coworkers, and supports from supervisors) have positive effects on work engagement. In turn, work engagement positively affected on teacher role behavior and organizational citizenship behavior. Another study examined work engagement in India and Thailand and found that human resource development climate and self-efficacy are significant predictors of work engagement irrespective of the country (Chaudhary, Rangnekar, Tanlamai, Rajkulchai, & Asawasakulsor, 2017). Furthermore, it was suggested that both job resources (e.g., skill variety, task identity, task significance, autonomy, etc.) and personal resources (e.g., self-efficacy) are important predictors of work engagement (Kunte, & Rungruang, 2018). In terms of consequences of work engagement, a study found positive relationships between employee engagement and organizational citizenship behavior (Rurkkhum & Bartlett, 2012).

Despite the growing body of literature on work engagement, there remains a critical need to investigate antecedents and consequences of work engagement in Thai context. Thus, the purpose of the present study is to extend previous research in two ways. First, this study aims to identify antecedents and consequences of work engagement in the Thai context. The second objective is to examine the patterns of relationships between these antecedents and consequences of work engagement among Thai employees. The findings will have implications for the management of human resources in the Thai context, and contribute to organizational effectiveness. In addition, an understanding of how these antecedents influence work engagement and its consequences might assist Thai organizations in creating new areas of organizational development related to these antecedents.

## **Antecedents of Work Engagement**

### **Positive orientation**

Caprara and his colleagues (e.g., Caprara et al., 2010; Caprara et al., 2012) have focused on a disposition in which life satisfaction, self-esteem, and optimism are subsumed under a common latent dimension, named ‘positive orientation (P-OR)’. P-OR is conceived as individuals’ tendency to view and face reality from a positive stance; it, therefore, affects the way individuals evaluate their subjective experiences. It is also considered a general element of subjective well-being, explaining variation and stability on individuals’ levels of subjective well-being, despite environmental changes (Caprara et al., 2012). Thus, it is reasonable to expect that individuals with high levels of P-OR should be confident in their own abilities and feel capable of driving physical, intellectual, and emotional energies in their work roles. In other words, these positive oriented individuals possess psychological availability for the completion of work roles. Previous research also indicated that personal characteristics such as optimism, self-efficacy, and self-esteem are predictive of work engagement (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007; Xanthopoulou et al., 2009). Thus, the first hypothesis is:

H1: Positive orientation will positively predict work engagement.

### **Career satisfaction**

Career satisfaction (CS) is the extent to which individuals believe their career progress is consistent with their goals, values, and preferences (Feldman & Ng, 2007). Thus, CS includes individuals’ reactions to actual and anticipated career-related achievements across a broader time frame than ones’ immediate job satisfaction (Greenhaus, Callanan, & Godshalk, 2000). Earlier studies showed that CS was a product of a variety of work-experience factors, including salary progression (Seibert, Crant, & Kraimer, 1999), hours worked (Wallace, 2001), a sense of identity (Law, Meijers, & Wijers, 2002), and satisfaction with the opportunity to achieve career goals (Reitman & Schneer, 2003). In addition, Timms and Brough (2013), using 312 teachers from non-government schools as subjects, found that CS predicts all dimensions of work engagement in cross-sectional analysis and over time. Based on self-determination theory, it was suggested that CS provides an assessment of the extent of fulfillment of innate psychological needs and generates psychological meaning in individuals’ work (Timms & Brough, 2013). It is, therefore, plausible that individuals with high levels of CS should feel that their works are worthwhile, useful and valuable. In other words, these career-satisfied individuals experience psychological meaningfulness which is one of the three precursors of work engagement. Thus, the present study hypothesized that CS should be positively correlated with work engagement.

H2: Career satisfaction will positively predict work engagement.

### **Attitude toward organization**

An attitude is ‘a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor’ (Eagly & Chaiken, 1993, p. 1). Thus, the present study defines employees’ attitude toward the organization (ATO) as a favorable or an unfavorable assessment of employees related to their organizations. Employees’ ATO is

likely derived from the employees' experiences with a variety of organizational features and work-related events. According to Kahn (1990), employees will feel psychological safety if organizational systems (e.g., leadership, organizational norms, group dynamics, etc.) provide support, openness, consistency, trust, and non-threatening climate. Thus, when employees experience psychological safety in the workplace, they should have a positive ATO and are likely to become more engaged in working their jobs. In contrast, a negative ATO, resulting from impoverishing management and threatening working climate, can undermine engagement with their work and organization. Previous research found that perceived organizational support predicts both job and organization engagement (Saks, 2006). In addition, research in social identity theory found that employees who have a strong and positive bond with their organization are also highly engaged in their work, and satisfied with their job (Karanika-Murray, Duncan, Pontes, & Griffiths, 2015). Consequently, the third hypothesis is:

H3: Employees' attitude toward organization will positively predict work engagement.

## **Consequences of Work Engagement**

### **Proactive work behavior**

Proactive concepts have been differently operationalized by many scholars. Some researchers define proactivity as a personal disposition (e.g., Parker, 2000), whereas others consider proactive work behavior (PWB) as a function of situational cues (e.g., Frese & Fay, 2001). This study follows the latter view and considers PWB as a behavioral pattern whereby employees take an active self-starting approach to work, go beyond assigned tasks, develop their own goals, and adopt a long-term perspective to prevent problems (Frese, Fay, Hilburger, Leng, & Tag, 1997). PWB also includes the active search and engagement in learning activities; it is, therefore, discretionary in nature (Frese, Kring, Soose, & Zempel, 1996).

It has been suggested that work engagement enhances PWB to the extent that work engagement embraces basic dimensions of intrinsic motivation (e.g., Salanova & Schaufeli, 2008). Sonnentag (2003) also argued that each of the three dimensions of work engagement is necessary to encourage employees' PWB. Specifically, vigor helps individuals pursue additional efforts and to see these efforts as worthwhile. Dedication enhances PWB by keeping and improving the positive work situation. Finally, absorption helps individuals seeking opportunities in their work context. Studies have shown that work engagement is positively related to employees' proactive work behavior (e.g., Sonnentag, 2003). Therefore, based on this empirical evidence, the present study proposes the following:

H4: Work engagement will positively predict proactive work behavior.

### **Innovative work behavior**

Literature described innovative work behavior (IWB) as a multi-dimensional process, which involves more than just the output of creative ideas (Scott & Bruce, 1994). In particular, IWB begins by an individual recognizes a problem, and then develops new ideas and solutions for the problem. Next, an individual seeks support for new ideas and solutions. The final step in the innovative process is to transform innovative ideas into useful

applications that can be used within an organization (Scott & Bruce, 1994). Rich, LePine, and Crawford (2010) suggested that since work engagement entails investments of cognitive, emotional, and physical energies into a work role; therefore, highly engaged employees should exhibit high levels of IWB. This is because they devote more cognitive resources to their responsibilities, they are emotionally linked to their work roles, and they work with high levels of energy on their jobs for longer periods. Research has found that highly engaged employees tend to pursue a sense of challenge and absorb themselves in work (Salanova, Agut, & Peiro, 2005), and are more likely to explore alternatives and potentially innovative solutions (Janssen & Van Yperen, 2004). In addition, Hakanen, Perhoniemi, and Toppinen-Tanner (2008) found a positive relationship between work engagement and personal initiative, which in turn positively influenced work-unit innovativeness. Thus, the fifth hypothesis is:

H5: Work engagement will positively predict innovative work behavior.

### **Organizational citizenship behavior**

Organ (1988) described organizational citizenship behavior (OCB) as a discretionary behavior, not directly or explicitly recognized by the formal reward system but in the aggregate promotes the performance of the organization. Samples of OCB may include assisting colleagues with their tasks, devoting time to assist new entrants to the organization, defending their organizational reputation, or even voluntary salary-cut. There are several reasons to expect work engagement to be related to OCB. Fredrickson's (2001) Broaden and Build theory suggests that work engagement is associated with increased enactment of OCB. This is because individuals in a positive state (e.g., engagement) experience broadened cognition, which is associated with higher levels of creativity, a broader scope of attention and openness to information. Christian et al. (2011) suggested that engaged employees are likely to exhibit OCB because they are very efficient in performing their tasks, thus enabling them to have time and resources to pursue activities that are not part of their work roles. Previous studies found that work engagement predicted both task and contextual performance (Saks, 2006; Schaufeli & Bakker, 2004; Sonnentag, 2003). Engaged employees appear to show more discretionary behaviors to improve the organization as well as fulfill their role more effectively (Bakker, Demerouti, & Verbeke, 2004). Thus, the sixth hypothesis is:

H6: Work engagement will positively predict organizational citizenship behavior.

### **The mediating role of work engagement**

To this point, the present study has argued that P-OR, CS, and ATO promote work engagement, which in turn, enhances positive work behaviors (i.e., PWB, IWB, and OCB). In other words, the present study has implicitly described a model in which work engagement mediates relationships among its antecedents and positive work behaviors. A theoretical rationale for explaining employees' work engagement and its antecedents and consequences can be found in the social exchange theory (SET). SET argues that relationships evolve over time into trusting, loyal, and mutual commitments as long as both parties accept certain rules of exchange (Cropanzano & Mitchell, 2005) Reciprocity rules is the best-known exchange rule that suggests that the actions of one party lead to actions by the other party. For example, when employees receive job and other resources from their organization, they are obligate to repay their organization by higher level of engagement and other positive work behaviors. Investing and devoting greater amounts of physical, emotional, and cognitive resources is a

sincere way for employees to respond to the organization's actions. In contrast, when the organization fails to provide necessary resources, employees are more likely to disengage themselves from their work-roles. The amount of engagement and other actions that employees prepare to devote for the organization is, therefore, contingent on the resources received from the organization (Cropanzano & Mitchell, 2005).

Thus, the general hypothesis of this paper is that P-OR, CS, and ATO influence employees' engagement in their work, in turn, these engagement influence employees' levels of positive work behaviors (i.e., PWB, IWB, and OCB). Previous research has shown that work engagement is a mediator between personal characteristics (e.g., core self-evaluations) and both task performance and OCB (Rich et al., 2010). Research also found that work engagement mediates the relationships from affective commitment to job performance and intention to quit (Yalabik, Popaitoon, Chowne, & Rayton, 2013). In addition, Karanika-Murray et al. (2015) found that the effect of organizational identification on job satisfaction is transmitted through work engagement.

Work engagement, of course, should not be expected to fully mediate these hypothesized relationships as P-OR, CS, and ATO may also explain these relationships. Research indicates that antecedents of engagement have been associated with various work outcomes, for example, Saks (2006) found that antecedents of work engagement (e.g. job characteristics, justice perceptions) have been directly affected various work outcomes (e.g., job satisfaction, organizational commitment, and organizational citizenship behavior). Research in P-OR reported that P-OR predicts job performance and OCB (Alessandri et al., 2012). It is also reported that dispositional constructs related to individuals' perception of control and self-worth (e.g., self-esteem) were positively linked to proactive behavior (Kanfer, Wanberg, & Kantrowitz, 2001). Evidence also shows significant relationships between satisfaction in career and citizenship performance directed toward the organization (Jawahar & Stone, 2015), and commitment (Carson, Carson, Phillips, & Roe, 1996). In addition, scholars found that perceived organizational support (a positive attitude) was positively related to citizenship performance directed toward the organization (Jawahar & Stone, 2015), and proactive behaviors at work (Ashford, Rothbard, Piderit, & Dutton, 1998), while cynicism (a negative attitude) was negatively related to OCB intentions (Andersson & Bateman, 1997). Thus, based on previous empirical studies, the following hypotheses are proposed:

- H7a: Work engagement will partially mediate the effect of P-OR on (a) PWB, (b) IWB, and (c) OCB.
- H7b: Work engagement will partially mediate the effect of CS on (a) PWB, (b) IWB, and (c) OCB.
- H7c: Work engagement will partially mediate the effect of ATO on (a) PWB, (b) IWB, and (c) OCB.

## **Method**

### **Design and Sample**

This research adopted a cross-sectional approach using a questionnaire survey. Participants were contacted personally or via e-mail. Questionnaires were distributed in booklet form, along with a cover letter and a document stating that participation of this study

is voluntary and that they are free to withdraw at any time without giving any reason. Since the study objective was to test the relationship among the variables, convenience sampling was used and should not produce any detrimental effects on the findings (Sternthal, Tubott, Calder, & Richard, 1994). This is because if the focus of research is theoretical, the makeup of a sample does not matter. Consequently, any research participants are qualified as research subjects for fundamental research and theory testing (Bello, Leung, Radebaugh, Tung, & van Witteloostuijn, 2009, Mook, 1983, Pernice, Ommundsen, Van Der Veer, & Larsen, 2008). To determine an adequate sample size for the study, the G\*Power 3.0 reveals that a sample size of 129 can estimate medium effect sizes at 95% statistical levels (Faul, Erdfelder, Lang, & Buchner, 2007). The data was collected during May to July 2018. The research sample was comprised of 608 persons working in public and private organizations (e.g., hospital, university, power plant, etc.) in the upper north region of Thailand, from various occupations (e.g., nurse, engineer, university staff, etc.). About 57% of the sample was female, with a mean age of 37.70 years. The mean employment tenure was 13.71 years.

## Measures

All research instruments used in the present study, except a demographic information sheet, were translated from English into Thai with back-translation to ensure language equivalence. Translation and back-translation were performed by language proficiency experts.

**1. Positive orientation scale.** The 8-item scale developed by Caprara et al. (2012) was used to assess positive orientation. The questionnaire uses a scale ranging from 0 (totally disagree) to 4 (totally agree). Sample items are: ‘I have great faith in the future’ and ‘I look forward to the future with hope and enthusiasm.’ Internal consistency reliability of the scale was .82.

**2. Career satisfaction scale.** The 5-item scale developed by Greenhaus, Parasuraman, and Wormley (1990) was used to assess career satisfaction. Respondents were asked to rate each item on a 5-point scale ranging from 0 (strongly disagree) to 4 (strongly agree). Sample items are: ‘I am satisfied with the success I have achieved in my career’ and ‘I am satisfied with the progress I have made toward meeting my overall career goals’. Internal consistency reliability of the scale was .88.

**3. Attitude toward organization scale.** The 7-item scale developed by Wilkerson, Evans, and Davis (2008) was used to assess employees’ attitude toward organization. Even though the scale was originally constructed to measure organizational cynicism; most of the scale items are in positive wording reflecting our conceptualization of attitude toward organization as a construct comprised of beliefs and expectancy. Sample items are: ‘My company pulls its fair share of the weight in its relationship with its employees’ and ‘My company meets my expectations for quality of work life.’ Respondents were asked to rate each item on a 5-point scale ranging from 0 (strongly disagree) to 4 (strongly agree). The raw scores were reversed so that high scores reflect a positive attitude toward organization, whereas low scores indicate a negative attitude toward organization. The coefficient alpha of the scales was .81.

**4. Work engagement scale.** Work engagement was measured with the Utrecht Work Engagement Scale-9 (UWES-9; Schaufeli, Bakker, & Salanova, 2006). The UWES-9 is a shortened version of the Utrecht Work Engagement Scale. The scale consists of 9 items

measuring three subscales that reflect the underlying dimensions of engagement; i.e., vigor dedication, and absorption. All items were scored on a 7-point scale ranging from 0 (never) to 6 (every day). Sample items are: “At my work, I feel bursting with energy” and “I feel happy when I am working intensely.” The coefficient alpha for overall work engagement was .95.

**5. Proactive work behavior scale.** Proactive work behavior was assessed with the 7-item scale developed by Frese et al. (1997). Participants responded to a 5-point rating scale ranging from 0 (not true at all) to 4 (very true). Sample items are: “I take initiative immediately even when others don't.” and “I actively attack problems.” The coefficient alpha of the scales was .80.

**6. Innovative work behavior scale.** This 6-item questionnaire was developed by the Xerri (2012). Sample items are: “I create new ideas for difficult issues”, and “I transform innovative ideas into useful applications.” Respondents were asked to rate each item on a 5-point scale ranging from 0 (not true at all) to 4 (very true). The coefficient alpha of the scales was .86.

**7. Organizational citizenship behavior scale.** The 9-item scale developed by Kelloway, Loughlin, Barling, and Nault (2002) was used to assess organizational citizenship behavior. Participants were asked to indicate, using 5-point scales (0 = never, 4 = always), how often they engaged in organizational citizenship behavior. Sample items are: “Volunteering to do things not formally required by the job” and “Helping other employees with their work when they have been absent.” The coefficient alpha of the scales was .82.

**8. Demographic information sheet.** The demographic information sheet asked participants to indicate their gender, age, educational level, and job tenure.

## Data Analysis

The proposed research hypotheses were tested by using partial least squares structural equation modeling (PLS-SEM) with SmartPLS 3.0 (Ringle, Wende, & Becker, 2015) which is widely applied in business and social sciences. The PLS-SEM is an appropriate method given non-normal data distribution, and the exploratory nature of the study (Hair, Hult, Ringle, & Sarstedt, 2017). In PLS-SEM, R-square values of the endogenous variables and effect size, significant levels, and t-values of the structural paths are used for model evaluation (Fornell & Cha, 1994). Bootstrapping resampling with 5000 samples is carried out to test the significance of estimated path coefficients (Hair et al., 2017). In evaluating and reporting the results, the author followed recent guidelines for PLS-SEM (e.g., Hair et al., 2017) and assessed the measurement models before evaluating the structural model.

## Results

### Measurement Validation

First, reflective measurement models were assessed for their reliabilities and validities. The loadings ( $\lambda$ ) of each reflective measure on its corresponding construct should be greater than the threshold levels of .50 (Hair et al., 2017). Thus, one item from the P-OR measure, two items from the ATO measure, one item from the PWB measure, and three items from the



OCB measure were dropped due to low loading estimates. The remaining items were then used in the following steps of analyses. The results show that Cronbach's alphas ( $\alpha$ ) of all constructs are greater than .70, and the composite reliability (CR) values are greater than .80, indicating adequate internal consistency for the constructs. The average variance extracted (AVE) values of the constructs are greater than the cut-off value of .50 (Hair et al. 2017) providing convergent validity of the measurement model.

Discriminant validity of the constructs was assessed by using two approaches. First, the indicators' cross-loadings were examined; the result revealed that no indicator loaded higher on any opposing construct. Second, Fornell, and Larcker's (1981) criterion was applied by examining the square root of the AVEs and latent variable correlations. Both analyses clearly indicate that all constructs exhibit discriminant validity (Table 1). The measurement model assessment substantiates that all the construct measures are reliable and valid. Thus, the next step is to evaluate the structural model focusing on the hypothesized relationship among the constructs.

Table 1

*Descriptive statistics, correlations and discriminant validity assessment*

Variable	P-OR	CS	ATO	WE	PWB	IWB	OCB
P-OR	<b>.73</b>	.71**	.53**	.59**	.58**	.55**	.51**
CS	.71	<b>.82</b>	.60**	.59**	.54**	.51**	.52**
ATO	.53	.61	<b>.75</b>	.55**	.49**	.46**	.43**
WE	.60	.59	.56	<b>.85</b>	.56**	.52**	.47**
PWB	.59	.54	.50	.58	<b>.71</b>	.71**	.57**
IWB	.55	.52	.49	.53	.66	<b>.76</b>	.49**
OCB	.51	.53	.48	.49	.60	.55	<b>.72</b>
<i>M</i>	2.90	2.83	2.57	4.36	2.73	2.61	2.86
<i>SD</i>	.46	.56	.53	.93	.43	.50	.49

*Note.* P-OR = positive orientation; CS = career satisfaction; ATO = attitude toward organization; WE = work engagement; PWB = proactive work behavior; IWB = innovative work behavior; OCB = organizational citizenship behaviour. The diagonal elements (in bold) are the square root of the AVEs; Lower half of the diagonal represents latent variable correlations; upper half of the diagonal (in italic) represents correlation coefficients between the constructs. \*\*  $p < .01$

### Structural Model and Hypotheses Testing

First, the analysis focused on the relationships between three antecedents (i.e., P-OR, CS, and ATO) and work engagement (H1, H2 and H3) and between work engagement and its consequences (i.e., PWB, IWB, and OCB) (H4, H5, and H6). Second, the full PLS path model and, more specifically, the effects of the mediator (H7a, H7b, H7c) were assessed. The predictive validities of the scales (the extent to which a score on a scale predicts scores on some criterion measure) were assessed using the measures of explained variance. The  $R^2$  value of work engagement, PWB, IWB, and OCB are .46, .44, .39, and .36 respectively, all are large effect sizes (Cohen, 1988). This finding is also supported by the  $Q^2$  value (Stone, 1974) of the predictive relevance. After running the blindfolding procedure (Henseler, Ringle, & Sinkovics, 2009) with an omission distance  $D = 7$ , the  $Q^2$  values of work engagement (.31),

PWB (.21), IWB (.21), and OCB (.17) indicate the predictive relevance of the PLS path model.

Table 2 presents the estimated path coefficients,  $t$ -values,  $R^2$ , and  $Q^2$  of endogenous constructs. As illustrated in Table 2, the results confirm all hypotheses. In particular, the standardized path coefficients for H1, H2, and H3 ( $\gamma = .31, .22$ , and  $.26, p_s < 0.01$ ) and for H4, H5, and H6 ( $\beta = .27, .22$ , and  $.17, p_s < 0.01$ ) affirm the positive relationships between these antecedents and work engagement, and between work engagement and its consequences. In addition, the bootstrapping procedure (608 cases, 5,000 resamples) was conducted to assess the significance of the path coefficients (Hair et al., 2017). Finally, in order to evaluate the global fit of a PLS path model, the author followed Henseler, Hubona and Pauline's (2016) suggestion that the fit index standardized root mean square residual (SRMR) should be used in the context of PLS. A value below 0.08 indicates that a PLS path model provides a sufficient fit of the empirical data. For the present study, the SRMR is adequate (.07). Figure 1 shows all structural relationships.

Table 2

*Structural model assessment*

Endogenous construct		$R^2$	$Q^2$	
WE		.46	.31	
PWB		.44	.21	
IWB		.39	.21	
OCB		.36	.17	

Hypothesized paths		Path coefficients	$t$ -value	Result
H1	P-OR $\rightarrow$ WE	.31**	6.64	Supported
H2	CS $\rightarrow$ WE	.22**	4.70	Supported
H3	ATO $\rightarrow$ WE	.26**	7.25	Supported
H4	WE $\rightarrow$ PWB	.27**	6.39	Supported
H5	WE $\rightarrow$ IWB	.22**	5.17	Supported
H6	WE $\rightarrow$ OCB	.17**	3.46	Supported

*Note.* The cross-validated redundancy measure  $Q^2$  is derived from the blindfolding procedure with an omission distance of seven; the  $p$ -values are derived from the bootstrapping procedure with 608 cases and 5,000 resamples. \*  $p < .05$ , \*\*  $p < .01$

In the present study, the PLS-SEM mediator analysis follows the general recommendations given by Preacher and Hayes (2008) and Hair et al. (2017). In sum, two conditions need to be met in testing mediation. First, there should be an effect to be mediated. Second, the indirect effect should be statistically significant in the predicted direction. Full mediation occurs if the independent variable has no significant effect on the dependent variable when the mediator is controlled. Partial mediation occurs if the magnitude of the effect of the independent variable is smaller but remains significant when the mediator is controlled.

The results in Table 3 indicate that work engagement partially mediates the relationships between three antecedents (i.e., P-OR, CS, and ATO) and three consequences of

work engagement ( i.e., PWB, IWB, and OCB) . Direct and indirect effects of these antecedents towards PWB, IWB, and OCB are all statistically significant. The variances accounted for (VAF) of the partial mediations are between 16.4% and 37.3% . The rule of thumb is if the VAF is larger than 20% and less than 80% could be characterized as a typical partial mediation (Hair et al., 2017), and a VAF above 80% indicates a full mediation. These mediation analyses, therefore, provide evidence to support H7a, H7b, and H7c.

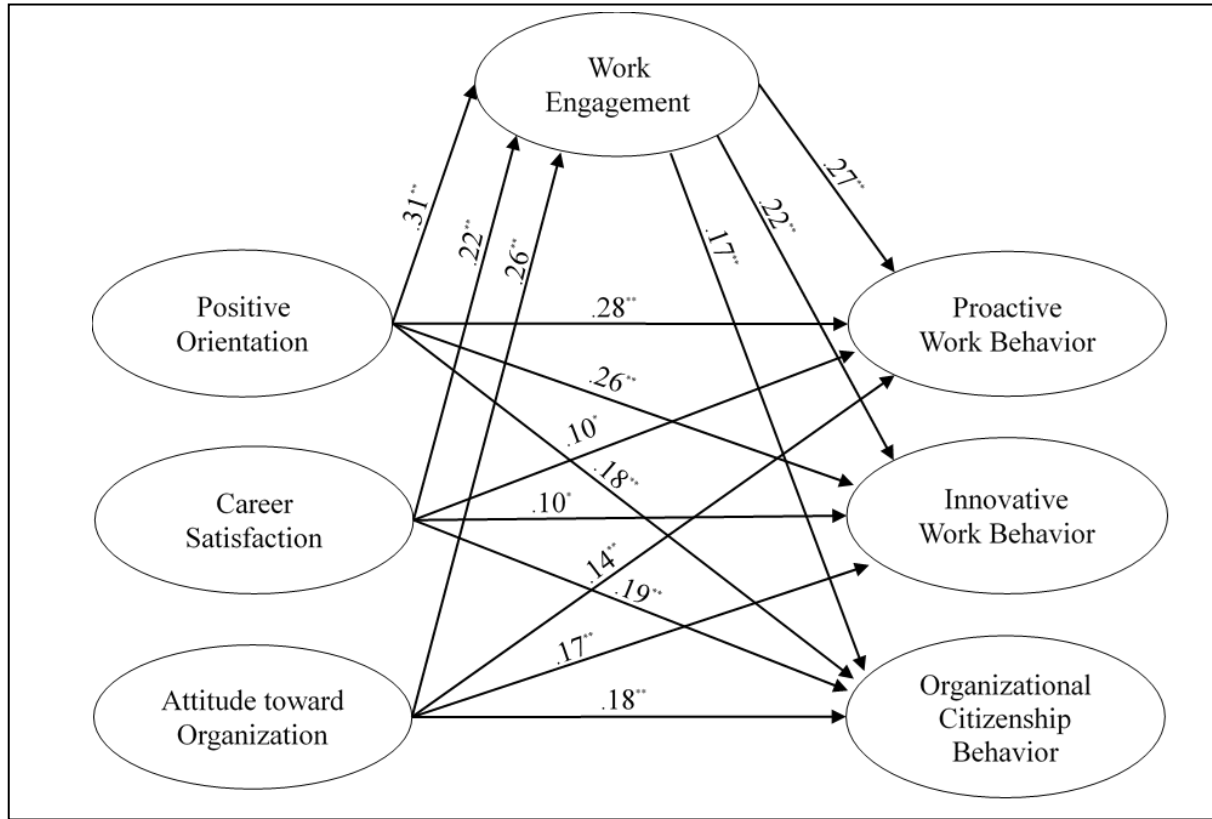


Figure 1. Parameter estimates for the final model

Table 3

*Analysis of mediating effects*

Antecedent-	DE	IE	TE	VAF (%)	Remark
P-OR — PWB	.28**	.08**	.36**	22.99	Partial mediation
P-OR — IWB	.26**	.07**	.33**	20.06	Partial mediation
P-OR — OCB	.18**	.05**	.23**	22.41	Partial mediation
CS — PWB	.10*	.06**	.16**	37.34	Partial mediation
CS — IWB	.10*	.05**	.15**	31.76	Partial mediation
CS — OCB	.19**	.04**	.22**	16.44	Partial mediation
ATO — PWB	.14**	.07**	.21**	33.64	Partial mediation
ATO — IWB	.17**	.06**	.22**	25.45	Partial mediation
ATO — OCB	.18**	.04**	.22**	20.09	Partial mediation

Note. DE = direct effect, IE = indirect effect, TE = total effect, VAF = variance accounted for.

\* $p < .05$ , \*\* $p < .01$

## Discussion

The primary objective of the present study is to investigate the antecedents and the consequences of work engagement in the Thai context. This study also examined whether work engagement acts as a mediator between these antecedents and consequences of work engagement. The results supported the research model to a large extent. As predicted, P-OR, CS, and ATO are related to work engagement as its antecedents. The consequences of work engagement, on the other hand, are three types of positive work behaviors (i.e., PWB, IWB, and OCB). An equally important finding was that work engagement not only has a direct relationship to these positive work behaviors, but also it partially mediates the relationship between P-OR, CS, and ATO and three types of positive work behaviors. This finding demonstrates that P-OR, CS, and ATO predict PWB, IWB, and OCB because they predispose individuals to react in certain ways to their work situations, as reflected in their work engagement. The results also suggest that instead of indirectly affecting PWB, IWB, and OCB, these antecedents of work engagement also directly affect these positive work behaviors. The present results agree with recent research about how personal, job, and organizational resources enhance work engagement which in turn increases positive work behaviors, such as proactive behavior at work (Salanova & Schaufeli, 2008) or job performance (Yalabik et al., 2013).

These results add to our understanding of work engagement among Thai employees as well as adding to the literature focused on work engagement in the Asian context. A primary theoretical contribution of the present study is that it extended Kahn's (1990) theory by considering the degree to which work engagement serves as an important mechanism through which the antecedents of work engagement affect positive work behaviors. Kahn (1990) suggested that there are three conditions associated with work engagement: meaningfulness, safety, and availability. The present study applied this framework and identified three antecedents of work engagement, i.e., P-OR, CS, and ATO. The results illustrate that each antecedent has a unique and significant effect on work engagement. The present study also illustrates the nature of the behavioral outcomes to their organizations made by employees as a function of their work engagement. Specifically, employees who were engaged not only invested their energies in performing their work roles, but also tended to be initiative, innovative, and involved in organizational matters.

Consistent with Kahn's (1990) theory which posits that physical, psychological, and emotional resources increase work engagement, this study found that P-OR predicts work engagement (H1). This is because positive-oriented persons tend to appraise, view, and interpret life events from a positive perspective. Thus, this disposition significantly affects how individuals react and cope with the inevitable adversities and failures (Caprara et al., 2010). In other words, positive-oriented persons are better equipped to cope with job stress and have more personal resources to invest at work (Alessandri et al., 2015). It has also been shown that the availability of personal resources such as self-efficacy, organizational-based self-esteem, and optimism enhances work engagement, which in turn results in positive employee outcomes (Xanthopoulou et al., 2007). This study also found that CS predicts work engagement (H2). This is because career-satisfied individuals experience psychological meaningfulness, which is one of the three precursors of work engagement. Thus, individuals with high levels of career satisfaction should feel more engaged with their work compared to those with low levels of career satisfaction. In addition, ATO predicts work engagement (H3)

because employees who feel positive toward their organization should feel safe to try new things, and are likely to become more engaged in working their jobs.

To explain the linkages between work engagement and PWB, IWB, and OCB (H4, H5, and H6), Bakker (2009) offers four reasons why engaged employees perform better than their non-engaged counterparts. First, engaged employees often experience positive emotions such as enthusiasm and joy. They are more sensitive to opportunities at work, more helpful to others, and more confident and optimistic. These positive emotions have the capacity to broaden individuals' thought-action repertoire, permitting individuals to initiate new behaviors. Second, engaged employees experience better health, allowing them to use their full mental and physical resources, and in turn, enhance job performance. Third, engaged employees are able to build their own resources, therefore, enabling them to manage job demands and achieve their goals. Forth, engaged employees positively influence their coworkers' levels of engagement, and in turn, increase team performance.

The present study found that work engagement partially mediates the positive relationships between P-OR, CS, and ATO and three types of positive work behaviors (H7a, H7b, and H7c). In other words, when employees reported high levels of P-OR, CS, and ATO, they felt engage with their work. Subsequently, work engagement leads them to work proactively, act innovatively, and exhibit more extra-role behaviors. The fact that work engagement leads to positive work behaviors agrees with Broaden-and-Build theory (Fredrickson, 2001). This theory posits that individuals in a positive state experience broadened cognition and builds enduring personal resources. Thus, it could be explained that work engagement that characterized by enthusiasm, pride, inspiration and challenge have a positive effect in broadening individuals' cognition, and therefore increasing the likelihood of exhibiting positive work behaviors.

The present study is the first attempt to investigate antecedents and consequences of work engagement in the Asian context. This study is able to clarify how these antecedents act together to influence work engagement, which, in turn, affects employees' positive work behaviors. Nonetheless, the present study is not without limitations. This study used self-reports, therefore, respondents might tend to give socially desirable responses even though their anonymity was guaranteed. Nonetheless, research on self-reported performance suggests that self-report data are useful in measuring employee's perceptions (Spector, 1994) and that it is comparable to ratings from other sources (Fecteau & Craig, 2001).

The findings of the present study have practical implications for the management of human resources in organizations. Since work engagement has been shown to be related to positive work behaviors, specifically PWB, IWB, and OCB, organizations should select employees that are predisposed to become engaged by focusing on personal characteristics (e.g., P-OR) that affect job outcomes through engagement. A second practical implication of the present study is that organizations should consider designing jobs so that they are enriched and meaningful. It has been observed that employees have been increasingly seeking jobs that are interesting and fulfilling (Chalofsky & Krishna, 2009). Thus, organizations should consider providing work facets (e.g., a sense of identity, purpose, etc.) in order to help employees believe that their career progress is consistent with their goals, values, and preferences. Finally, employees' attitude toward their organizations appear to influence work engagement, and positive work behaviors, therefore the top management of organizations should monitor and manage these attitudes as they attempt to improve employees' work

engagement and positive work behaviors. For example, if the work environment is designed such that employees experience a supportive environment and fairness, they will eventually develop a positive attitude toward their organizations.

The present study suggests that the mediating role of work engagement is useful in understanding the effects of personal and organizational factors on positive work behaviors. Nonetheless, the present study used a cross-sectional design; future research should investigate to confirm the causal relationships among these variables by using longitudinal study designs. Future research should also investigate multiple mediators (e.g., intrinsic motivation, etc.) of the relationship between antecedents and work outcomes to determine the relative importance of these mediators. Additionally, it is also important to identify other possible antecedents of work engagement, such as cultural values, group norms and so on.

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