

# Employee Engagement as A Potential Mediator Connecting HRD Practices with Counter-Productive Work Behavior

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## ABSTRACT

While the literature provides clear evidence that human resources development (HRD) practices and counter-productive work behaviour (CWB) have a strong relationship, the psychological mechanisms that underlie this relationship are less well established. This research explored the association between HRD practices and CWB by using employee engagement (EE) as a mediating variable. A total of 265 participating master programs students have returned the complete questionnaires studying in public sector university in Thailand. Findings demonstrated that HRD practices have been linked to CWB negatively after measuring demographic profile of the respondents. The findings also showed that EE has a significant mediating impact on the link between human resource development practices and CWB.

## Keywords

Employee Engagement, HRD Practices, counter-productive work behaviour

Article Received: 10 August 2020, Revised: 25 October 2020, Accepted: 18 November 2020

## Introduction

McLagen (1989, p. 52) defined HRD practices as “integrated use of training, organizational development, and career development efforts to improve individual, group, and organizational effectiveness”. Extensive literature in the field of HRM practices have demonstrated that human resource development practices are associated with attitudinal and behavioural outcomes, including organizational commitment (Uraon, 2018; Kerdpitak & Jermstittiparsert, 2020), job satisfaction (Paposa & Kumar, 2019), productivity (Moore & Khan, 2020) and organizational citizenship behaviour (Detnakarin & Rurkkhum, 2019). In the light of increasing awareness, further research is required in order to better understand the theoretical link between human resource development practices and behavioural outcomes (Siriyanun, Mukem, & Jermstittiparsert, 2019; Sriviboon & Jermstittiparsert, 2019). A thorough analysis of the literature may find two significant gaps.

First of all, previous research seemed to have ignored adverse effects (i.e., negative work outcomes), with more and more academic emphasis on them. This negligence is problematic, as employees show negative and positive or CWB attitudes at work, which may lead to detrimental effects for an organization, if not handled properly (Lee, 2015) suggested that further investigation is required in order to explain the effects of HRD practices in the analysis of current knowledge and the development of HRD typology. The belief that human resource development practice would increase EE is implicit in the human resource development and performance relationship (Twyford, Shuck, Shuck, & Reio Jr, 2014). From the previous studies, it has been found that EE contributes to positive outcomes.

Nevertheless, the possible effect of EE on CWB tends to be absent from existing literature. A study of the antecedents and outcomes of EE has been developed by Sakks (2006). He has suggested some positive outcomes, like organizational commitment, and job satisfaction, but has overlooked negative consequences. McGuire, Garavan, and Lee (2015) stated that HRD may have a direct and indirect impact on job outcomes, suggesting that more studies would explore such theoretical possibilities in the hope of further enhancing HRD literature. This research tried to investigate in response to their calls whether human resource development practices could minimize CWB through EE. With the theoretical gaps in mind, the aim of this research is two-fold: first, to investigate the association between human resource development practices and CWB; second, to investigate the mediating role of EE in between human resource development practice and counterproductive work behaviour. Further, an extensive body of relevant literature on HRD practices, CWB and EE in the development of hypotheses is discussed and methodology used in the current analysis. Moreover, in view of empirical research and theory, we present and analyze the findings. Lastly, we emphasize the contributions of this research to the theory and practice of HRD.

## Literature Review and Development of Hypotheses

### Relationship Between Human Resource Development and CWB

Counter-productive work behaviour is defined as “intentional acts by employees that harm organizations or their stakeholders” (Fox, Spector, & Domagalski, 2006, p.

30). For example, counter-productive work behaviour includes the damage and degradation of the properties of organizations, the prevention of job and the calling of sick people in the event of non-disease. HRD and industrial-organizational psychological scholars widely accept that CWB is an overwhelming trend and can damage their members and organizations. For instance, 57 percent of organizations in Canada, who are all concerned with an organization's workforce, say that they are victims of assets misappropriation, 23 percent financial frauds and cybercrime and 33 percent procurement frauds (PWC, 2015). Counter-productive work behaviour has been an important source of occupational stress (Meier & Spector, 2013) and has also been related to decreased organizational commitment and job satisfaction and increased turnover intention (Barling & Herscovis, 2010).

We draw from the social exchange theory (SET) (Blau, 1964) as our guiding model for linking perceived organizational support between human resource development practice and CWB. SET indicates that people appear to form associations on the basis of interactions with others (Blau, 1964; Cropanzano, Walumbwa, & Hartnell, 2009). SET was based on the main belief of the central aspect of human interaction in exchanging economic and social resources (Blau, 1964; Mitchell & Cropanzano, 2005). Although economic trade involves a conditional and clear trade in quantified resources, the exchange of social capital, by contrast, involves a set of interactions that create obligations, and such interactions are usually viewed as mutually interdependent and being contingent on one's actions (Mitchell & Cropanzano, 2005). The acceptance of social exchanges provides for a moral obligation in order to assist the donor, but there is no further commitment to a mere economic exchange following the completion of the transaction. The notion of reciprocity (Gouldner, 1960) is fundamental to the philosophy of SET. In this research, SET suggests that workers are likely to positively respond to supportive treatments through their involvement in constructive practices and not contradict in when they feel that they have received opportunities to engage in the practices of HRD, like retention, training and development, mentoring programs and career opportunities. According to the stimulus response theory, the perceived working environment serves as a stimulus that allows employees to evaluate and react cognitively (Homans, 1958). In addition, research on organizational behaviour has supported the idea that human resource development practices play a significant role in reducing CWB. For instance, stated that human resource development practices implementation can enable individuals to avoid CWB and to promote best organizational performance. (Garavan, MacKenzie, & Carbery, 2011) found human resource development practices to play a significant role in the management and prevention of CWB. Therefore, the following hypothesis has been developed:

H1: Human resource development has a negative and significant impact on CWB.

### Employee Engagement as a Mediator

Kahen (1990, p. 694) defined employee engagement as "the harnessing of organization members' selves to their work roles; ... physically, cognitively, and emotionally during role performances". Gatenby, Kular, Rees, Truss, and Soane (2008, p. 3) also defined employee engagement as "the amount of discretionary effort exhibited by employees in their job". In addition, EE is referred to as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" Salanova, Schaufeli, Bakker, and González-Romá (2002, p. 74). The present study defined EE as "physical, emotional, cognitive and intellectual" engagement shown by individuals in the workplace. An analysis of human resource development and the literature on organizational behaviour shows the potential to conceptualize employee engagement as a unidimensional/multidimensional variable (Kahen, 1990; Reio Jr & Shuck, 2011; Sakks, 2006). In particular, EE is conceptualized to have three dimensions: emotional, cognitive and behavioural engagement (Kahen, 1990; Twyford et al., 2014). Emotional engagement is defined as "emotional bond one feels toward his or her place of work and represents a willingness to involve personal resources such as pride, belief, and knowledge" (Reio Jr & Shuck, 2011, p. 423). Similarly, cognitive engagement is defined as "an employee's appraisal of whether his or her work is meaningful and safe ..., as well as whether they have adequate resources ... to complete their work" (Reio Jr & Shuck, 2011, p. 422). Likewise, behavioural engagement is defined as "physical and overt manifestation of cognitive and emotional engagement; behavioral engagement can be understood as increased levels of discretionary effort" (Reio Jr & Shuck, 2011, p. 423). Nevertheless, for the sake of parsimony, we have considered EE to be a unidimensional variable. Here, we have to make a decision to select a unidimensional approach over the multidimensional approach. As generalization, simplicity and accuracy are always difficult to achieve simultaneously (Blelock, 1979), we preferred consistency at the cost of accuracy and generalization. The authors further assume that taking this method into account will give space for further studies connecting human resource development practices with CWB.

In the previous studies of EE, the emphasis was on the antecedents like personality traits (Boustani, Akhtar, Chamorro-Premuzic, & Tsivrikos, 2015), perceived organizational support core self-evaluation (Lee, 2015), leadership style (Kim, Carasco-Saul, & Kim, 2015), cultural factors (Raya & Bhuvanaiah, 2016; Tolvanen, Huhtala, Feldt, & Mauno, 2015) and industry type (Agarwal, 2015). Previous studies also showed a positive and statistically significant association between human resource development practices and EE (Twyford et al., 2014). Moreover, recent research by Raana (2015) has also shown that workers have a higher level of EE in their work by providing the requisite training.

Prior researches which examined the impact of EE on counterproductive work behaviour were limited on work outcomes. Nonetheless, little evidence recommends a reduction in counterproductive work behaviour by employee engagement. In previous studies it was contended that employees who have a negative impact on the organization

and/or its members have a major impact on the CWB's likelihood of voluntary actions through employee engagement. In previous studies it was showed that EE had a negative relationship with CWB. According to the researcher's knowledge, to date no empirical research has investigated the underlying mechanism by which human resource development explains CWB. In addition, if these two sources of evidences are combined, we hypothesized that EE may, for the following reasons, mediate the link between HRD practices and CWB. Firstly, it is possible that employees become more involved when they see that the employers support their involvement in human resource development practices (Reio Jr & Shuck, 2011). Twyford et al. (2014, p. 245) states that employees could be engaged due to "the message of value and support communicated by the ability to attend and participate". When workers are more involved, their efforts are likely to be expended by showing positive behaviour, like workplace productivity (Sakks, 2006). In comparison, one can assume that workers are less likely to show counterproductive work behaviour in this case. Within the SET, the reciprocity principle (Gouldnar, 1960) states that workers must return their favor, by increasing their involvement in the human resource development practices. By showing the counterproductive work behaviour, the return of favor does not come under the reciprocity principle. Second, we argued that human resource development practices affect attitude of employees to their work, which, in turn, predicts that people are likely to involve in CWB. Therefore, from the above discussion, we hypothesize the following:

H2: The association between human resource development practices and CWB is mediated by EE.

A conceptual model is proposed for this research based on the empirical and theoretical evidence discussed above. The endogenous construct in this research is counterproductive work behaviour and human resource development practices are the exogenous constructs as shown in Figure 1. The conceptual model explicitly implies that human resource development practices indirectly link to CWB through EE.

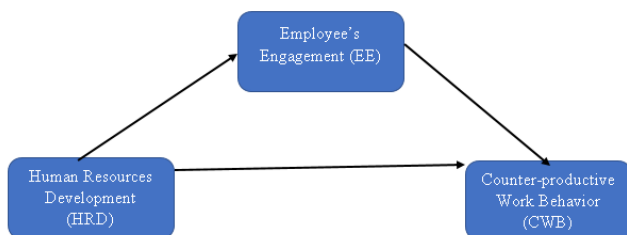


Figure 1 Conceptual framework

## Research Methodology

In a large public sector university, we distributed 300 questionnaires to the master students studying in different disciplines. Respondents were given 30 minutes time to fill the questionnaires. A total of 265 complete questionnaires have been received from the respondents. We have selected master programs students as they are easily accessible and have working experience in both private and public sector institutions like healthcare, construction, manufacturing, information technology, sales and marketing, property and

real estate, education sector. During classes we distributed the questionnaires to the participants and before distribution we informed students about research purpose and their participation is voluntary. The purpose of this was to lessen common method bias effect. Of the 265 respondents, 69 percent were male respondents and 31 percent were female respondents. Of the total, 58 percent were working in public sector organizations, whereas the 21 percent were working in private sector organizations and remaining 21 percent had no working experience.

## Measurement Scale

We measured HRD practices scale with nine (9) items developed by (Bruvold & Lee, 2003). The sample items of the HRD practices scale were "My organization trains employees on skills that prepare them for future jobs and career development", "My organization provides support when employees decide to obtain ongoing training" and "My organization is fully supportive of a career-management program for the employees". Similarly, the measurement scale for EE with five (5) items developed by (Sakks, 2006). The sample items of the scale were "I am highly engaged in this job", "Sometimes I am so into my job that I lose track of time" and "My mind often wanders, and I think of other things when doing my job". Lastly, the scale for CWB with ten (10) items short version was adopted from Bauer, Spector, and Fox (2010). The sample items of the scale were "Purposely wasted your employer's materials/supplies", "Ignored someone at work" and "Came to work late without permission". The scale for HRD practices and EE were measured on a seven-point Likert type scale from strongly disagree to strongly agree, whereas the scale for CWB was measured on a seven-point Likert type scale ranging from never to every day.

## Control Variables

In order to reduce the erroneous results on the links between independent variables and dependent variable (McDonald, 2014), we controlled for demographic profile of respondents like gender measured (male = 1 and female = 2) and age (continuous variable). In addition, these demographic constructs were integrated in our proposed framework, as they may also impact counterproductive work behavior (Deng & Zhang, 2016).

## Analytical Procedure

The current study used partial least square structural equation modeling (PLS-SEM) to assess the measurement model and structural model. The reason behind choosing smart PLS is as follows: firstly, the current study focused on the prediction of the endogenous construct (Ringle, Hair, & Sarstedt, 2011). Second, in subsequent analysis, the present study used scores of latent constructs in our proposed mediation model to estimate indirect effect (Hayes, 2017; Roldán, Suárez, & Calvo-Mora, 2014). Third, PLS-SEM is considered to be the "most fully developed and general system" (McDonald, 1996, p. 240). Smart PLS 3.0 was used in this research (Wende, Ringle, & Becker, 2015). We

produced 265 sample size for PLS-SEM analysis after detection and removal of multivariate outliers.

### Common Method Variance (CMV)

Since the authors utilized self-reporting questionnaire to gather information from the same respondents simultaneously, the current study could involve common method variance (CMV) (Organ & Podsakoff, 1986). Therefore, in order to report CMV issue, we have used the Harman one factor analysis (Organ & Podsakoff, 1986; Whitney & Lindell, 2001). In particular, we also conducted a principal component analyses of items in the human resource development practices measures, and the items in the CWB and EE measures. A total of 23 factors were found with just 23 percent of the variance in the first factor. In addition, we also found that the unrotated factor structure shows no general factor. The findings of the analysis therefore indicated that in the current analysis, CMV is not a concern.

### Multicollinearity Assessment

Multicollinearity can significantly distort regression coefficient estimates and statistically relevant analyses between independent variables. Multicollinearity in particular raises coefficients standard errors, which in effect statistically makes coefficients insignificant. We investigated the variance inflated factors (VIF) for every independent variable in order to detect multicollinearity. Ringle et al. (2011) suggesting that multicollinearity is an issue if the value of VIF is above five. The findings have shown that multicollinearity in the current study does not appear to be a concern because all values of VIF are between 1.143 and 1.154.

## Research Results

### Measurement Model Assessment

In measurement model, we assessed constructs validity and reliability. In measurement model smart PLS is used to check reliability of each item, convergent validity, internal consistency reliability and discriminating validity. In particular, by evaluating each reflective variable outer loading, we calculated each item's reliability. We will delete the outer loading between 0.4 to 0.7 only when item deletion leads to an increase in AVE as suggested by (Hult, Hair Jr, Sarstedt, & Ringle, 2016). In measurement model, only four items out of the 24 items have been deleted, in compliance with (Hult et al., 2016) rule of thumb. As shown in Table 1, the remaining 20 items have therefore been retained with outer loading between 0.418 and 0.936. Further, we calculated each multi item scale internal consistency reliability adopted by the current study by analyzing each reflective variable composite reliability (CR) coefficient. Internal consistency reliability can be considered to be sufficient if the value of CR is 0.7 or higher (Yi & Bagozzi, 1988). The value of CR of the variables are between 0.812-0.887, which are above the threshold value of 0.7, indicating that each measure is appropriate for internal consistency

reliability as shown in Table 1. Further, the authors focus to determine the convergent validity (CV) after defining internal consistency reliability. The CV of each reflective variable is defined when the value of AVE will be greater than 0.5 (Chen, 1998). Table 1 showed that the value of AVE for each variable is higher than 0.5, indicating adequate CV.

**Table 1** Validation of the Measurement Model

Constructs	Indicators	Loadings	CR	AVE
Counterproductive work behavior (CWB)			0.891	0.532
	CWB_4	0.683		
	CWB_5	0.670		
	CWB_6	0.694		
	CWB_7	0.668		
	CWB_8	0.759		
	CWB_9	0.754		
	CWB_10	0.838		
Human Resource Development practices (HRD)			0.887	0.509
	HRD_1	0.749		
	HRD_2	0.827		
	HRD_3	0.708		
	HRD_4	0.893		
	HRD_5	0.665		
	HRD_6	0.453		
	HRD_8	0.481		
	HRD_9	0.829		
Employee engagement (EE)			0.812	0.533
	EE_2	0.813		
	EE_3	0.936		
	EE_4	0.642		
	EE_5	0.418		

Lastly, we tested discriminant validity empirically by adopting Fornell and Larcker (1981) method. This method demonstrates discriminant validity when the AVE square root of every reflective variable is higher than its correlation with any other variable which is reflective in nature. Measurement model completely fulfilled the discriminant validity criteria, based on Fornell and Larcker (1981) criterion, provided that the value of AVE for each variable was higher than the correlation with other variable in the model as shown in Table 2.

### Structural Model Assessment

We also followed the procedure suggested by Hayes and Preacher (2004), Hayes (2009), Castro, Picón, and Roldán (2014) for evaluating the mediating effect of EE. In particular, the direct impact was defined and calculated before the indirect impact was considered. The structural model has also been evaluated by four criteria: the coefficient of determination ( $R^2$ ) for dependent constructs, the predictive relevance ( $Q^2$ ), the effect size ( $f^2$ ) and path



coefficients estimates (Chen, 1998; Hult et al., 2016; Ringle, Henseler, & Sinkovics, 2009). In order to produce confidence intervals and point estimate, we have introduced a bootstrapping procedure with 5000 subsamples (Hult et al., 2016). The t-values, explained variance, confidence interval and predictive relevance of our structural model direct effect is shown in Table 3.

**Table 2** Discriminant Validity (Fornell Larcker Criterion)

Variables	CWB	HRD	EE
CWB	<b>0.730</b>		
HRD practices	-0.667	<b>0.732</b>	
EE	-0.449	0.377	<b>0.721</b>

**Table 3** HRD Practices direct effect on CWB (Controlling for Gender and Age)

Constructs	Direct effects	t values	C.I percent	95
HRD practices	-0.510	17.062	(-.559; .459)	-
Gender	-0.042	0.586	(-.126; .064)	
Age	0.022	0.313	(-.071; .88)	

Note:  $R^2 = .248$ ;  $Q^2 = .089$

The overall variance in CWB was explained in the direct effect model which is 24.8 percent. Consequently, it can be considered acceptable for the value of  $R^2$  to be 0.248 (Chen, 1998). Similarly, the value of  $Q^2$  ( $Q^2 = 0.089$ ) provides support for the model which is greater than zero as shown in Table 3 (Ringle et al., 2009). The value of structural path model is negative and substantially different from zero in the link between human resource development and CWB (gender and age as control variables) ( $\beta = -.510$ ,  $t = 17.062$ ,  $p < .001$ ),  $(-.559; .459)$  as shown in Table 3. Further, after gender and age control, we investigated the indirect impact of human resource development and CWB through EE. The smart PLS model had an indirect effect of 15.1 percent of the overall variance in EE and 50.7 percent for the CWB. The findings of the current study showed that values of  $Q^2$  ( $Q^2 = 0.255$ ) was greater than zero indicating satisfactory predictive relevance (Ringle et al., 2009). Moreover, human resource development practices indirect impact on CWB was substantially different from zero via EE after gender and age control ( $\beta = -.217$ ,  $t = 7.158$ ,  $p < 0.001$ ,  $[-.284; -.182]$  as shown in Table 4.

**Table 4** Employee engagement as a mediator in between HRD Practices and CWB

Indicators	Beta values	t values	C.I percent	95
HRD practices	-0.217	7.158	(-.284; .182)	-
Gender	-0.021	0.329	(.088; .059)	
Age	0.032	0.681	(.038; .086)	

Note:  $Q^2 = .255$

The findings of the study indicate that the link between HRD and CWB is mediated by EE after gender and age control, which supports hypothesis H2.

## Conclusion and Discussion

The main purpose of this research is to investigate the link between human resource development practices and CWB. In order to validate the current, albeit minimal literature, a negative and important relationship has been identified. The help perceived from the employer represents the belief that the company respects the commitment of its workers and cares for their wellbeing. The provision of resources for career and personal growth in the context of human resource development practices underlines the organization's belief and importance of investing in employees as the key contribution to the achievement of its objectives. This perceived organizational support also represents the organizational dedication to allowing workers to learn continuously. Research shows workers are likely to demonstrate CWB in reaction to the absence of organizational support (Twyford et al., 2014). We have also suggested EE as a potential mechanism that can help understand by using social exchange theory as our guidelines, why support for the delivery of HRDs can minimize the tendency to participate in CWB. As expected, the result supports the convergence of human resource development practices with EE and CWB. It follows (Twyford et al., 2014) research that find the association between human resource development practices and intention to leave is mediated by EE.

## Contributions

The findings have a theoretical and practical impact. Firstly, by replicating previous researches, this research investigated the direct impact of human resource development practices on CWB by adding SET as an underpinning theory. In addition, this research broadened the framework of SET by including EE as a mediator to understand the important factor why human resource development practices affect CWB, not relying on direct link between human resource development practices and CWB. Supporting human resource development practices allows individuals to be engaged and focused more effectively, avoiding them from exhibiting adverse behaviours which can hinder work achievements and organizational objectives. It is important for the organization to provide the required support to ensure that its individuals remain engaged and focused, as such a situation sends out a message that organizations are committed to employee's wellbeing. This message is important to provide adequate response to organizational objectives through attitudes and behaviour. Second, given that human resource development practices have a positive and significant relationship with EE, which in effect decreased CWB. We also suggest the development of a more inclusive and equal working environment as the best practice for reducing CWB in the workplace. In particular, organizations are able to achieve this counterproductive work behaviour intervention Strategy by making the selection, support, and general efforts related to human resource development practices by being respectful, fair and inclusive (Twyford et al., 2014).

## Limitations and Recommendations for Future Research

There are several limitations in this analysis that indicate areas for further potential research. The first goal of this research was to analyze EE as a potential mediator, but certain other psychological factors can have an effect on CWB through HRD practices. Further work is therefore required in order to decide if the links between HRD practices and counterproductive work behaviour can be mediated by other attitudinal variables. Specifically, future studies may add other attitudinal variables (i.e., organizational commitment, job satisfaction) to mediator the said relationships.

Second, while the results support our proposed model theoretically and empirically, alternate clarifications for these findings cannot be excluded. For instance, a thorough analysis of human resource development and organizational behaviour literature recommends that EE is probably a critical boundary of the link between human resource development practices and CWB. The association between human resource development practices and CWB could be moderated by EE, that is to say, rather than a mediator (Bllau, 1964). For further studies, one recommendation is to establish and analyze EE as a moderator in the relationships between human resource development practices and CWB. Future studies are explicitly required in order to see whether the link between human resource development practices and CWB will improve employees who are more dedicated than employees with a lesser degree of engagement.

Third, we have found EE to be a potential mediating variable, consistent with the theory of possible processes of thought between human resource development practices and CWB (Bllau, 1964). Apart from considering EE as a potential mediating variable, the direct impact of human resource development practices on CWB can have a cultural impact because available studies indicate that EE may be assessed culturally. Further studies will be helpful from testing and developing a mediated-moderated model, which would rely on cultural factors, for instance engagement culture, organizational supportive culture and ethical culture for the mediating impact of EE in the link between human resource development practices and CWB (Raya & Bhuvanaiah, 2016; Tolvanen et al., 2015).

Fourth, the current study used cross-sectional approach which is one of the limitations because that do not permit causal inferences from the population. Therefore, future studies may use longitudinal approach in order to investigate more rigorously the direction of causation. Eventually, this research assessed CWB by self-reporting measures. Although self-reporting measures are appropriate for counterproductive work behaviour assessment, especially where confidentiality was guaranteed during the collection of data and the use of self-reporting is linked to the process of CMV (Organ & Podsakoff, 1986). Further studies need data collection from many sources to mitigate this issue. In particular, CWB should be assessed by colleagues and supervisors

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