

RELATIONSHIP MODEL OF WORK ENVIRONMENT, EMPLOYEE ENGAGEMENT, ORGANIZATIONAL COMMITMENT AND ORGANIZATIONAL LEARNING

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Abstract

The work environment is a very important variable in improving employee performance. However, how it affects performance still requires in-depth testing. This research aims to test a model of the relationship between work environment, commitment, engagement and learning in organizations as perceived by employees of small and medium enterprises (SME) in several large cities in Indonesia. The research used a questionnaire with data collected from 822 samples. After going through a series of tests on the validity and reliability of measuring instruments and testing the relationship between research variables, the relationship model was tested using structural equation modeling to determine the relationship model that best fits the data. These four variables are variables related to human resources, so efforts must be made to fulfill them by the organization. The results of this research further strengthen the results of previous research and theories regarding the influence of resources and social exchange relationships on achieving employee and organizational performance.

Keywords: work environment, employee engagement, organizational commitment, organizational learning

INTRODUCTION

Employee engagement (EE) and organizational commitment (OC) are two variables that are very important for achieving organizational performance. The two have been proven to be positively related to each other and both are positive variables (Cheah et al., 2016; Hayat et al., 2019; Yousef, 2017). EE is believed to contribute significantly to organizational success (Aggarwal, 2024; Al Mehrzi & Singh, 2016; Aktar & Pangil, 2018; Rai et al., 2017). Organizational factors such as work environment (WEn) are believed to increase EE (Huang et al., 2017; Katou, 2017). EE and OC are ways for individuals to repay the kindness of the organization (Hoon Song et al., 2014). Job demand-resource (JD-R) theory is commonly used to examine the antecedents of EE and OC (Saks, 2022). WEn are job resources that come from organizations, interpersonal and social relationships, managing roles, tasks or activities, and employee management practices (Ostroff & Bowen, 2016).

According to Pangil (2018) there is a mediating variable in testing the influence of WEn on EE, namely OC. The causal relationships between EE and OC are varied and not very conclusive. Several researchers found that EE can increase OC (Hanaysha, 2016). However, other researchers found that OC is an antecedent of EE (Katou, 2017; Van Gelderen & Bik, 2016). Similar to EE, OC has also consistently acted as a mediating variable (Aktar & Pangil, 2018; Wijnmaalen et al., 2016). EE and OC are two different and interconnected variables (Rameshkumar, 2020; Teo et al, 2020). Social exchange theory (SET) underlies the influence of these two variables on positive outcomes in organizations (Jones, 2018).

Furthermore, there is a link between organizational learning (OL) and EE. EE influences motivation and OL (Rameshkumar, 2020). However, OL can also grow and improve EE (Chukwuma et al., 2017; Edmonstone, 2018). OL is used to improve EE by involving individuals as team members,

creating skills, and providing experience (Hussain & Ishak, 2017). On the other hand, EE in the form of behavior can encourage enthusiasm for learning and create OL (Odour & Samuel, 2018). Meanwhile, cognitive work awareness which is a form of EE requires OL to always be present in organizational activities (Obiageli et al., 2016; Ikon & Chika, 2017).

A pleasant WEn can also increase EE (Islam & Tariq, 2018), while EE can support the creation of an environment that supports learning in the organization (Islam & Tariq, 2018). Based on resource conservation theory (RCT), pleasant WEn can increase EE so that it can increase positive behavior for the organization (Musgrove et al., 2014). Positive factors in the organization can influence the increasing in positive workplace behaviors such as EE and OC (Huang et al., 2017; Katou, 2017; Aktar & Pangil, 2018). Based on JD-R theory, EE is influenced by existing resources and job demands.

Furthermore, JD-R theory also states that WEn can encourage individuals to carry out learning in organizations and realize OL (Bermejo-Toro et al., 2015; Molino et al., 2016). Based on SET, exchanges in organizations are influenced by resources and WEn (Bordia et al., 2017). EE is explained by SET. Positive reciprocal relationships in the workplace have a positive impact on positive work behavior (Presbitero, 2017). If employees are on a comfortable WEn and support their work tasks, they will reciprocate by being actively involved at work (Hoon Song et al., 2014; Van de Voorde & Beijer, 2015). Human capital theory (HCT) states the need for learning for employees can improve their EE and OC (Ogueyungbo et al. (2020).

This research begins from Hanaysha's (2016) findings regarding the influence of WEn, EE, and OL, on OC. However, this relationship model does not seem to fit the existing data, judging from the fit value. Therefore, this study aims to test the relationship model between WEn, OL, EE, and OC, which are antecedents, consequences, and mediators in the relationship model. Researchers agree that EE and OC are mediating variables (Ahakwa et al., 2021; Eldor & Harpaz, 2016; Islam & Tariq, 2018; Na-Nan et al., 2021). This research aims to test five relationship models using structural equation modeling to find the model that best fits the data.

LITERATURE REVIEW AND HYPOTHESIS FORMULATION

OC is an employee's perception of the organization, both in the form of compliance and positive attitudes towards the organization as well as acceptance behavior towards the organization (Na-Nan et al., 2021). OC is also an individual's attitude not to leave the organization (Ahakwa et al., 2021). According to Meyer et al. (1993) there are three dimensions of commitment, namely affective (feeling part of the organization and wanting to serve the organization), normative (compliance, obedience and loyalty), and continuity (desire to remain in the organization). OC is also loyalty to organizational goals. Employees with higher OC want to share with organizational members to advance the organization (Ahmad et al., 2019; Nguyen et al., 2014). OC can reduce absenteeism and turnover, increase motivation, retention, work quality, employee sacrifice, so that it can improve the company's reputation and performance (Ahakwa et al., 2021; Karunarathne & Wickramasekara, 2020).

Meanwhile, EE is also a positive behavior shown by participation, communication, closeness, motivation, devotion (Ahakwa et al., 2021; Hanaysha, 2016). EE is also a psychological condition in which individuals feel meaningful and safe, thereby demonstrating responsibility for the organization (Kahn, 1990). EE is enthusiasm, motivation, interest, happiness, productivity, effectiveness, and other positive states (Men et al., 2020). EE is also a cognitive and affective condition related to work and can provide a feeling of satisfaction, inspiration, happiness, and well-being (Magnan et al., 2016; Schaufeli, 2018; Vila-Vazquez et al., 2018). EE is referred to as a variable that is similar to OC but broader in scope (Barrick et al., 2015 Rameshkumar, 2020; Teo et al, 2020).

EE is influenced by work, leadership and organizational support, giving awards and perceived justice (Saks, 2019). EE includes vigorous, dedication, and absorption with work (Schaufeli, 2013) and is very important for organizations (Rothman, 2017). Many studies have linked EE with positive extra-

role behavior and support increased organizational efficiency and performance (Bakker & Xanthopoulou, 2013; Eldor & Harpaz, 2016). EE is also related to WEn because the availability of resources in WEn can increase EE in the workplace (Diedericks & Rothman, 2013). EE is a positive factor that increases employee energy, happiness, and well-being at work (Cavalcante et al., 2014). Previous researchers agreed to make EE a mediating (Ateeq, 2023; Gupta et al., 2017) and independent (Hanaysha, 2016) variable in discussing human resources management. Meanwhile, EE is also a dependent variable which is influenced by employee management (Cooke et al., 2019; Guest et al., 2020; Zhong et al., 2016).

Researchers agree on the relationship between EE and OC and both can improve performance (Dhir & Shukla, 2018; Jones, 2018; Pereira et al., 2021; Rameshkumar, 2020). JD-R theory explains the relationship between EE and OC (Bakker et al., 2014), because EE and OC can help employees deal with job demands and the availability of resources in the organization. EE has a positive impact on OC (Khalid & Khalid, 2015; Hanaysha, 2016). Based on JD-R theory, WEn which includes job resources and demands can influence work motivation, comfort at work, and increase EE and OC (Hakanen et al., 2008). In other words, WEn influences EE and OC (Hanaysha, 2016; Hennekam, 2016).

WEn which includes facilities, atmosphere, feeling of comfort and calm, task clarity, supervision, and support from leaders and colleagues are important variables that influence OC (Ahakwa et al., 2021; Hanaysha, 2016). In addition, WEn has been agreed by researchers as a variable that influences performance (Al-Omari & Okaseh, 2017; Nematchoua et al., 2019; Nguyen et al., 2015). If WEn is comfortable for employees at work, then OC increases (Nwachukwu et al., 2019). Researchers also found a positive relationship between WEn and EE (Karacsony, 2019; Islam & Tariq, 2018). Although not too much, other researchers found a relationship between WEn, OC, and EE (Guest et al., 2020). In general, WEn is referred to as the availability of resources that influence EE (Cooper-Thomas et al., 2018).

EE is related to OL which includes job resources, variety and meaningfulness of tasks, autonomy, and organizational support (Maltseva, 2020). In addition, EE can increase OL because it is able to contribute energy and time to improving work quality (Cropanzano et al., 2017). OL has also been proven to have a positive impact on OC (Hanaysha, 2016; Khunsoonthornkit & Panjakajornsak, 2018; Salarian et al., 2015). OL is a process by which organizations remain competitive and up-to-date because they are able to receive new information and skills (Ogueyungbo, 2020). Based on SET, OL which includes a pleasant learning environment and climate will encourage individuals to respond positively to the organization (Cropanzano et al., 2017). The learning environment is related to EE because it is able to encourage employees to adapt to their environment to face existing challenges and motivate employees to achieve organizational goals (Islam et al., 2015). EE is also the result of a supportive environment because the environment can motivate employees (Mazzetti et al., 2021; Teo et al., 2020). Based on theoretical studies and previous research, the hypothesis proposed is:

H1: WEn is positively related to EE.

H2: WEn is positively related to OC.

H3: WEn is positively related to OL.

H4: EE is positively related to OC.

H5: EE is positively related to OL.

H6: OC is positively related to OL.

RESEARCH METHODS

This research was conducted on SME's employees in several big cities in Indonesia such as Bandung, Semarang, Yogyakarta and Surabaya. Sampling was carried out from June to December 2025 and a total of 822 employees were collected. Sample collection was carried out using a questionnaire adopted from previous research. The collected data was tested using a series of tests

starting from testing the validity and reliability of measuring instruments, hypothesis testing, and testing relationship models. Testing the reliability of the questionnaire used Cronbach's alpha value with criteria above 0.70 (Sekaran & Bougie, 2016). Validity testing used factor analysis with factor loadings above 0.50 as suggested by Hair et al. (2019). Finally, the relationship model was tested using structural equation modeling using AMOS to test the model that best fits the existing data.

This research used a questionnaire adopted from Hanaysha's (2016) research for the variables WEn, EE, OC, and OL. The questionnaire was translated into Bahasa Indonesia, then distributed to 1000 MSME's employees. 822 copies of the questionnaires returned completely filled out (response rate 82.2%). The results of validity testing using factor analysis found that the 9 EE question items were valid with factor loadings between 0.522 to 0.903, Kaiser-Meyer-Olkin (KMO) 0.903 and sign. 0.000 which indicates sample adequacy and reliability with an internal consistency (α) 0.909 (e.g., my work is meaningful and purposeful). Furthermore, 4 question items from the 5 WEn questions were tested as valid with loading factors between 0.733 to 0.833, KMO 0.770 and sign. 0.000 which indicates sample adequacy and reliability with the internal consistency (α) 0.801 (e.g., my work environment is interesting and fun). Meanwhile, the 5 OL question items were valid with loading factors between 0.622 to 0.781, KMO 0.788 and sign. 0.000 which indicates sample adequacy and reliability with the internal consistency (α) 0.763 (e.g., the organization provides continuous learning opportunities). Meanwhile, OC was measured using 5 valid question items with loading factors between 0.708 to 0.758, KMO 0.822 and sign. 0.000 which indicates sample adequacy and reliability with the criteria of internal consistency (α) 0.775 (e.g., I am willing to make various efforts for the success of this organization).

RESULTS AND DISCUSSION (Calibri Light 11, Bold, spasi 1,5, spacing before 12 pt, after 0 pt)

Preliminary Test Results

Initial testing was carried out by testing the relationship between variables studied. Table 1 presents the mean, standard deviation, correlation between variables and composite reliability.

Table 1. Mean, Standard Deviation, Correlation, and Composite Reliability

Variables	μ	Std. Dev.	CR	EE	WEn	OL	OC
Employee Engagement	4.089	0.806	0.953	1.000			
Work Environment	4.115	0.775	0.896	0.656**	1.000		
Organizational Learning	4.293	0.641	0.874	0.657**	0.693**	1.000	
Organizational Commitment	4.235	0.720	0.886	0.703**	0.691**	0.706**	1.000

** correlation is significant at the 0.01 level (2-tailed)

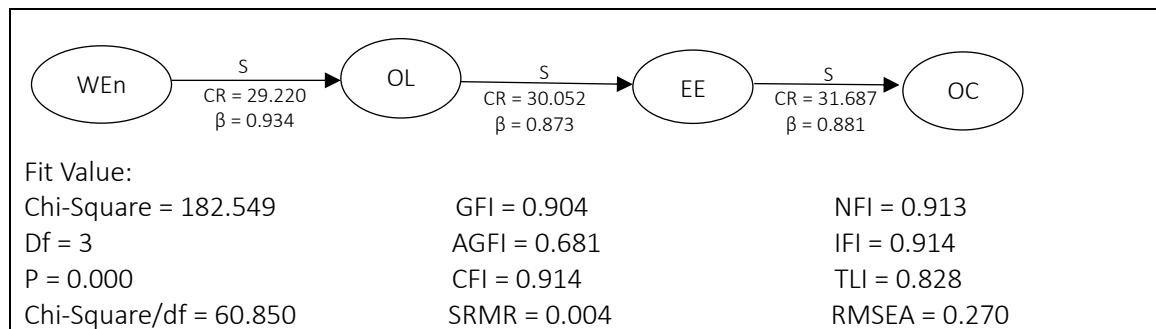
Data processing result, 2025

The results of the correlation test show that the variables studied have a significant relationship (H1, H2, H3, H4, H5, and H6 are supported). The mean of each variable is in the high category (between 3.67 to 5.00) which indicates that the four variables are positive according to the employee's assessment. A standard deviation above 0.50 indicates that respondents did not influence each other in filling out the questionnaire. Composite reliability which shows the actual reliability of the variables tested has met the standard of more than 0.6 (Bacon et al., 1995). Based on the results of correlation testing, it can be stated that all hypotheses of this research are supported.

Relationship Model Testing Results

This study aims to test seven models of relationships between the variables studied. In testing this relationship model, WEn is consistently positioned as an independent variable. Meanwhile, EE, OC, and OL occupy various positions, both as independent variables, mediators, and as dependent variables. Several criteria for measuring the suitability of the model to the data are chi-square which is close to 0 and probability (P) > 0.05, goodness-of-fit index (GFI) $\geq$ 0.90, root mean square error of approximation (RMSEA) $\leq$ 0.08, standardized root mean square residual (SRMR) $\leq$ 0.08, adjusted GFI

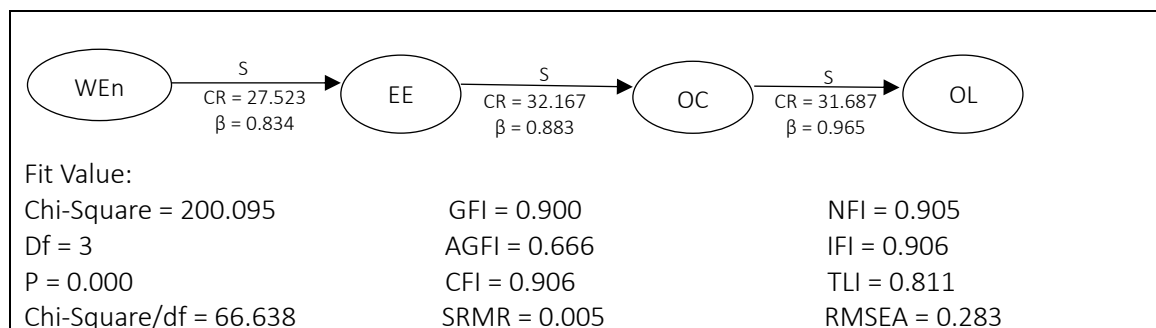
(AGFI) ≥ 0.90 , comparative fit index (CFI) ≥ 0.90 , normed fit index (NFI) ≥ 0.90 , incremental fit index (IFI) ≥ 0.90 , tucker-lewis index (TLI) ≥ 0.90 (Byrne, 2010). The results of model testing are presented below.



Data processing result, 2025

Figure 1 Model 1 - OL and EE Serially Mediate the Effect of WEn on OC

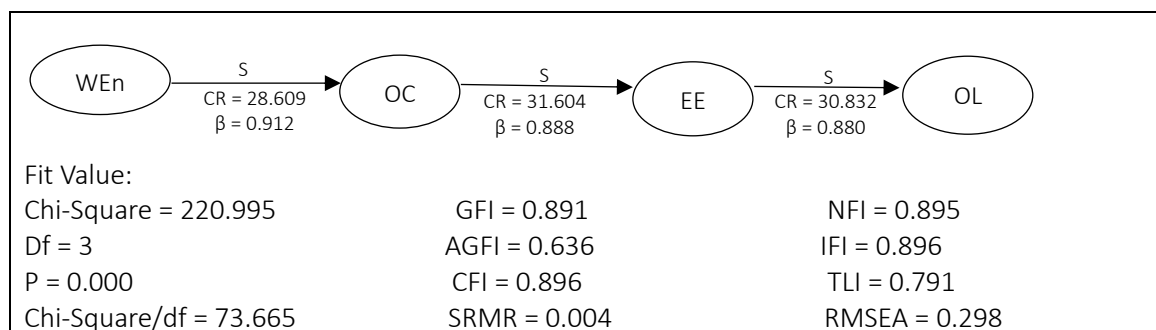
Model 1 shows that OL and EE serially mediate the influence of WEn on OC. The influence of WEn on EE is mediated by OL and the influence of OL on OC is mediated by EE. The results of model testing found that not all criteria for suitability of the model to the data were met. This model meets the GFI, CFI, NFI, IFI, and SRMR criteria.



Data processing result, 2025

Figure 2. Model 2 - EE and OC Serially Mediate the Effect of WEn on OL

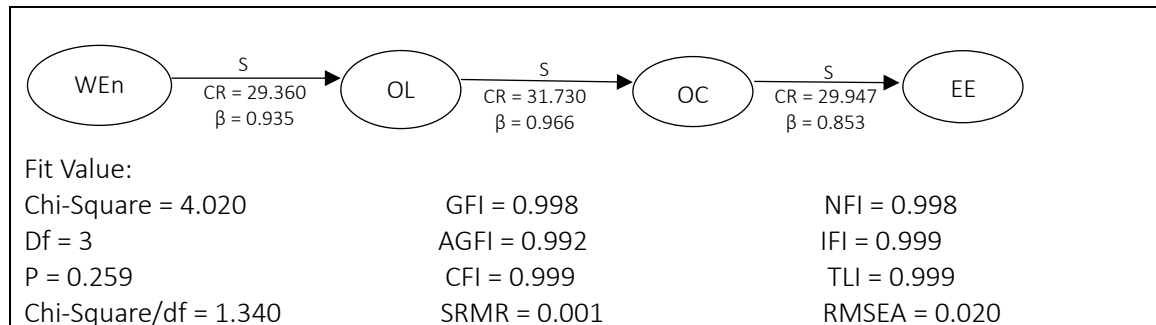
Model 2 shows that EE and OC serially mediate the influence of WEn on OL. The influence of WEn on OC is mediated by EE and the influence of EE on OL is mediated by OC. The results of model testing found that not all criteria for suitability of the model to the data were met. This model meets the GFI, CFI, NFI, IFI, and SRMR criteria.



Data processing result, 2025

Figure 3. Model 3 - OC and EE Serially Mediate the Effect of WEn on OL

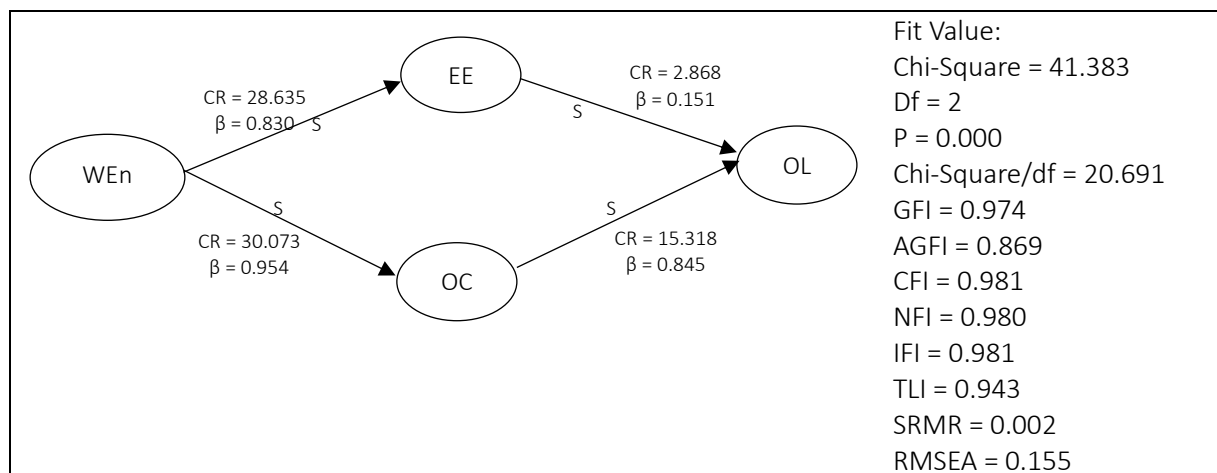
Model 3 shows that OC and EE serially mediate the influence of WEn on OL. The difference between Model 3 and Model 4 is that the influence of WEn on EE is direct in Model 3, while for Model 4, the influence of WEn on EE is mediated by OC. The results of model testing found that almost all criteria for suitability of the model to the data were not met. This model only meets the SRMR criteria.



Data processing result, 2025

Figure 4. Model 4 - OL and OC Serially Mediate the Effect of WEn on EE

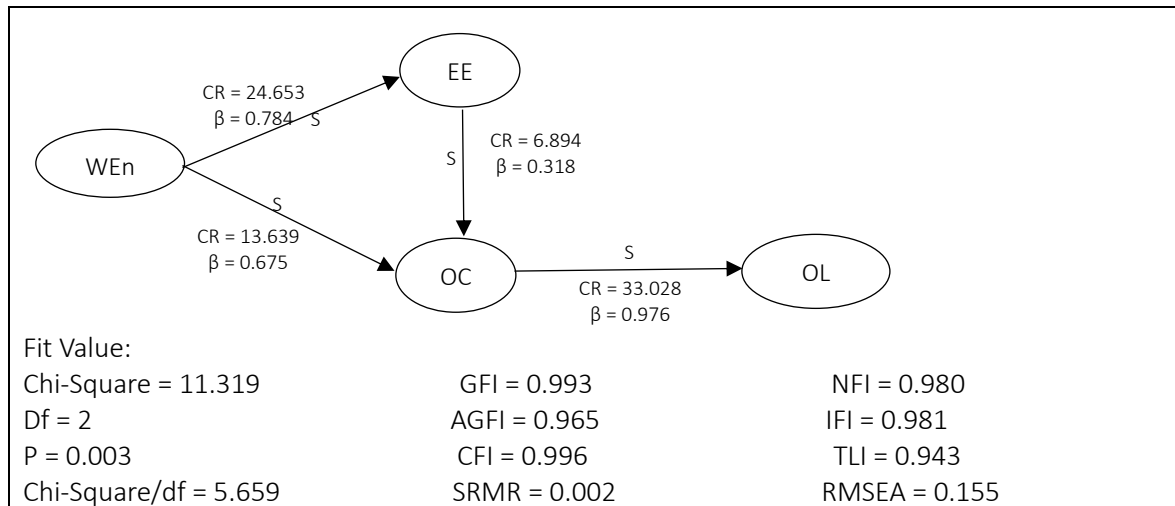
Model 4 shows that OL and OC serially mediate the influence of WEn on EE. The influence of WEn on OC is mediated by OL, while the influence of OL on EE is mediated by OC. The results of model testing found that all criteria for suitability of the model to the data were met. This model meets all model suitability criteria, namely chi-square, p, GFI, AGFI, CFI, NFI, IFI, TLI, SRMR, and RMSEA criteria.



Data processing result, 2025

Figure 5. Model 5 - EE and OC Mediate in Parallel the Effect of WEn on OL

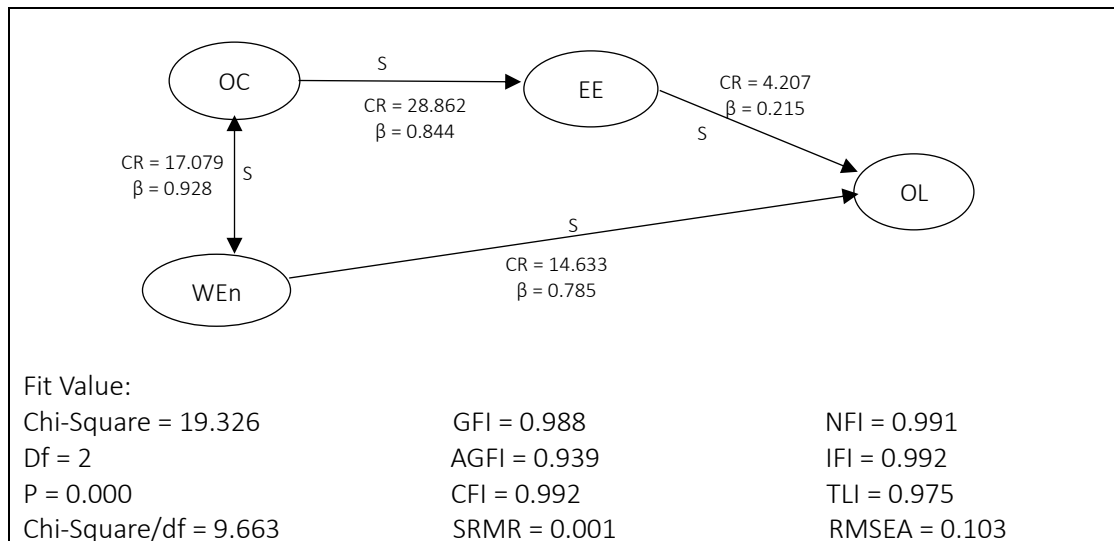
Model 5 shows that EE and OC mediate parallelly the influence of WEn on OL. The results of model testing found that not all criteria for suitability of the model to the data were met. This model does not meet all the criteria, namely GFI, CFI, NFI, IFI, TLI, and SRMR. The chi-square, p, AGFI, and RMSEA criteria are not met by Model 5.



Data processing result, 2025

Figure 6. Model 6 - OC and EE Mediate in Parallel the Effect of WEn on OC

Model 6 shows that WEn has a direct effect on EE and OC. OC has a direct effect on OL, but the influence of EE on OL must be mediated by OC. The results of model testing found that almost all criteria for suitability of the model to the data were met. This model meets the GFI, AGFI, CFI, NFI, IFI, TLI, and SRMR criteria. However, the chi-square, p, and RMSEA criteria are not met in model 6.



Data processing result, 2025

Figure 7. Model 7 - EE Mediates the Effect of WEn on OL

Model 7 shows that WEn and OC influence each other, while EE mediates the influence of OC on OL. WEn also has a direct influence on OL. The influence of WEn on EE is also mediated by OC. The results of model testing found that not all criteria for suitability of the model to the data were met. This model meets the criteria for GFI, AGFI, CFI, NFI, IFI, TLI, and SRMR, but does not meet the criteria for chi-square, p, and RMSEA.

This study examined the relationship between WEn, EE, OL, and OC. These four variables show a positive correlation. This confirms previous research regarding the positive relationship between WEn and EE (Islam & Tariq, 2018; Musgrove et al., 2014), WEn and OC (Hanaysha, 2016; Hennekam, 2016; Yeh, 2015), WEn and OL (Bermejo-Toro et al., 2015; Islam & Tariq, 2018; Molino et al., 2016), EE and OC (Cheah et al., 2016; Hayat et al., 2019; Yousef, 2017), EE and OL (Chukwuma et al., 2017;

Edmonstone, 2018; Rameshkumar, 2020), OC and OL (Hanaysha, 2016; Khunsoonthornkit & Panjakajornsak, 2018; Salarian et al, 2015).

Based on the results of the model testing, it can be explained that Model 4 is the model that best fits the data. This is indicated by the fulfillment of all model suitability criteria with existing data. In this model, WEn influences EE through OL and OC which serially mediate this relationship model. WEn that support work and are comfortable for employees can encourage positive perceptions of learning in the organization and increase learning in the organization. Meanwhile, individual perceptions of learning opportunities and support which are forms of OL will encourage employees to commit to remaining in the organization. In the end, this commitment will encourage a broader form of individual commitment, namely EE.

A good WEn that supports employee work can improve OL. Employees are encouraged to improve their capacity by supporting and helping each other. Learning that prioritizes togetherness can increase employee commitment to work and the organization. Previous studies have shown that OC and EE are two variables that influence each other (Dhir & Shukla, 2018; Jones, 2018; Pereira et al., 2021; Rameshkumar, 2020). This study shows that OC can improve EE.

The results of this research support several previous research results. WEn encouraging OL is consistent with previous research results (e.g., Aktar & Pangil, 2018; Islam & Tariq, 2018; Lyman et al., 2021; Oh & Han, 2020). Furthermore, OL also increases employee commitment to care about the organization and strive to achieve organizational goals. The positive influence of OL on OC also supports the results of previous studies (e.g., Hanaysha, 2016; Khunsoonthornkit & Panjakajornsak, 2018; Pereira et al., 2021; Salarian et al., 2015). Meanwhile, the results of this study support several researchers who agree that OC is an antecedent of EE (Guo et al., 2022; Katou, 2017; Van Gelderen & Bik, 2016). This research consistently uses OC as a mediating variable (Aktar & Pangil, 2018; Wijnmaaleh et al., 2016). Even though Model 4 is the model that best fits the data, the four variables studied are variables that influence each other and all four influence employee and organizational performance. The four variables must be of concern to the organization because they are related to employees who are the main resource for the survival of the organization.

CONCLUSION

Creating learning in an organization requires various factors, both internal and external. Internal factors in the form of employee EE and OC are indeed very important variables because employees are a resource that has great competitiveness in the organization. Employees are the backbone of organizational sustainability which needs to always be strived for. This research has proven that WEn, EE, OC, and OL are interrelated variables to achieve employee and organizational performance.

This research further strengthens the results of previous research regarding the need for an environment that supports OL and EE as well as employee OC which must always be developed for the organization. This research is also not free from weaknesses, such as the use of cross section data to test mediation models, the use of self-assessment to assess independent and dependent variables, and the number of samples that still needs to be increased. Future research needs to be strengthened by using a larger sample size to better reflect the population, using longitudinal data to test the mediation model, and using other ratings to avoid common method variance (Podsakoff et al, 2003).

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