The relationship between counterproductive work behavior and emotional intelligence among pest control employees

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Abstract
The primary purpose of this research is to study the effect of emotional intelligence (EI) on the counterproductive work behavior (CWB) of employees in the pest control industry in Indonesia. Although the effect of EI on CWB can be analyzed using the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), this model is not specific to employees; for this reason, EI will be measured via the Wong and Law Emotional Intelligence Scale (WLEIS). Questionnaires were distributed to 585 pest control employees. The data were analyzed using structural equation modeling (SEM). The results indicate that EI has a statistically significant negative relationship with CWB and that the more emotionally intelligent employees are, the less likely they will be to act counterproductively at work. These findings can potentially reduce the level of CWB for organizations and society by enabling companies to assess the EI of workers.

Keywords: CWB; EI; pest control industry; Indonesia.

JEL Classification: M41, M42

INTRODUCTION

Employees can engage in various behaviors that have positive or negative influences on their organizations. Counterproductive work behavior (CWB), also called work deviances or irregularities, is defined as actions that violate organizational regulations and harm companies or individuals. Often stemming from job dissatisfaction, CWB can be either verbal or physical (Miao et al., 2017) and can generate enormous losses for companies (Tiarapuspa et al., 2018). Workplace deviance is a problem faced by many companies (Aqqad et al., 2019). Many forms of workplace deviance are carried out by employees (Bennet & Robbinson, 2000). Some forms of workplace deviance that are often carried out, for example, use the time at the office for personal gain, daydreaming
more than working, getting angry at work, stealing, and insulting coworkers (Bennet & Robbison, 2000), which can harm themselves and their workplaces in financial and non-financial ways (Cohen, 2016; Vatankhah et al., 2017). Moreover, because the CWB of one employee can negatively influence the behavior of others, it can have a disproportionate effect in organizations that rely on positive interactions with customers, particularly those in the service industry (Vatankhah et al., 2017). According to Brender-ilan and colleagues (2018), the increasing interest in CWB in recent years is due not only to new organizational theories, but also to the desire to avoid public scandals such as vandalism, sabotage, truancy at work, drug use, sexual harassment, and physical violence (Miao et al., 2017). CWB actions that occur in an organization are likely to raise employee dissatisfaction, which can lead to adverse conditions and conflict among workers (Krishnakumar et al., 2017).

Emotional intelligence (EI) can be used to predict CWB because it is the main factor influencing how an individual behaves (Dirican et al., 2020; Alwansyah et al. 2020; Miao et al., 2017; Keskin et al., 2016; Raman et al., 2016). EI is a social intelligence that consists of knowing and differentiating between one's own emotions and the emotions of others and using this information as a basis for thinking and acting (Barreiro et al., 2020). General EI is different from trait EI, which is a collection of behavioral dispositions and self-perceptions about one's ability to recognize, process, and utilize information (Karim et al., 2015). Besides being influenced by EI, CWB is also affected by cyberbullying victimization (Keskin et al., 2016; Akbulut & Eristi, 2011).

Among the many scholars who have recently investigated this issue, Raman and colleagues (2016) and Jung and colleagues (2012) noted that emotional intelligence affects CWB. Similarly, Ugwu and colleagues (2017) found that emotional intelligence decreases CWB.

This research builds on previous studies, which generally use the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) to analyze CWB. This model is used for individuals at all levels of society regardless of their profession and is not specific to employees (Yin, 2010). This paper uses the Wong and Law Emotional Intelligence Scale (WLEIS), which is designed to measure an employee's EI as it relates to his/her CWB. It is a self-reported ability EI scale based on the theoretical framework of (Mayer et al., 1997). Previous studies have confirmed that the WLEIS has a robust four-factor structure. There is also evidence that the WLEIS has convergent validity concerning related EI measures, predictive validity controlling for life satisfaction, happiness, and psychological well-being, and criterion validity concerning personal well-being. Its scores are moderately negatively associated with psychological variables such as depression, loneliness, and stress and different organizational outcomes such as job satisfaction and work performance. With 16 questions, it is a much shorter test than the 100-question MSCEIT. Groups whose CWB has been studied using this scale include government frontliners (Raman et al., 2016), the aviation industry (Vatankhah et al., 2017), private and government employees (Anglim et al., 2018; Keskin et al., 2016), and students (Geel et al., 2016; Çelik et al., 2012). CWB research on pest control companies has never been done. This study aims to test the effect of emotional intelligence on CWB in this industry.

Counterproductive work behavior deviates from an organization's norms and regulations and harms both the company and the perpetrator (Kaplan, 1972; Pagliaro et
al., 2018). According to Reynolds et al., (2014) and Weber (2019), it is behavior that violates the goals of the organization, whether or not the employee believes it benefits him or her personally. CWB is an act of violation that is intentionally carried out to harm a company or its employees (Palmer et al., 2017). There are several ways to conceptualize counterproductive work behaviors. Before the mid-1990s, the most common approach was to examine individual dysfunctional behaviors with no suggestion of an overarching construct. For example, researchers studied lateness, workplace violence, sabotage, theft, and absenteeism with little recognition that these disparate behaviors may reflect some commonality (Zhou et al., 2018). Later, a more integrative view was proposed that conceptualized deviance as incorporating disparate behaviors organized according to the nature of the target (i.e., individual vs. organization) and the severity of the behavior. This typology validated the work of several earlier researchers and led to studies of aspects of CWB, including bullying, cyber-loafing, workplace violence, organizational ethics, sabotage, citizenship behavior, and incivility (Zhang et al., 2019).

Raman and colleagues (2016) observed that in addition to affecting emotional labor and emotional exhaustion, EI also affects CWB. This is expanded on Miao and colleagues (2017) and Keskin and colleagues (2016), who found that higher EI is negatively related to CWB, with the most substantial effect being evident in the service industry. We propose that having a higher degree of emotional intelligence (EI) enables employees to better handle workplace stressors. This research integrates the organizational behavior literature with the inspirational intelligence literature by offering a theoretical framework in which employees’ emotional intelligence consists of others’ emotion appraisal, use of emotion, self-emotion appraisal, and regulation of emotion, which allow them to deal with CWB as a negative organizational behavior.

**METHODS**

The population of this study was pest control employees in Indonesia, with a sample size of 585 workers from all levels of the industry. Random sampling was used. Data was collected by distributing questionnaires to employees from service companies engaged in pest control. This study examines the relationship between emotional intelligence (X) and counterproductive work behavior (Y). The variables were measured using a Likert scale ranging from one to five. In processing the data, structural equation modeling (SEM) was employed (Diyanto et al., 2019).

EI consists of four indicators: self-emotion appraisal (SEA), others’ emotion appraisal (OEA), use of emotion (UOE), and regulation of emotion (ROE) (Wong et al., 2017; Salovey & Mayer, 1990). According to Yin (2010), self-emotion appraisal is an individual’s ability to be aware of, quickly identify, and express their feelings. A person who can appraise their feelings can also successfully cope with, manage, and direct their emotions, and can therefore organize their feelings and themselves. Good self-emotion regulation can enable an individual to overcome their negative emotions rapidly so the possibility of being involved in CWB is minimized. Others’ emotion appraisal is the ability to understand others’ emotions. An individual who has good others’ emotion appraisal skills will have a higher sense of empathy for those around them. The use of one’s own and others’ emotions is related to increased workplace performance, since positive
emotions, motivation, and enthusiasm help to create job satisfaction. The possibility of engaging in CWB decreases. Regulation of emotion is defined as an employee’s ability to control their feelings. An individual who has a high ability to regulate emotion will have a lower chance of being involved with CWB. Individuals with high emotional intelligence can not only identify and appraise their positive or negative emotions, but can also play an innovational role in the workplace.

For the counterproductive work behavior (CWB) variable, the indicators used are abuse, productive deviance, sabotage, theft, and withdrawal (Weber, 2019; Kaplan, 1972). Abuse refers to physically dangerous or morally wrong behavior that affects others. Productive deviance refers to an employee’s failure to be maximally productive by engaging in behaviors like insubordination, slowdowns, and substandard work. Sabotage is a deliberate action aimed at weakening a polity, effort, or organization through subversion, obstruction, disruption, or destruction, particularly of company property. Saboteurs typically try to conceal their identities to avoid the legal consequences of their actions and retain their jobs. Another indicator related to property is theft, which is the taking without permission of company services, money, or materials. Withdrawal behaviors are actions a person takes when they become physically and psychologically disengaged from the organization. Some common withdrawal behaviors are physical, such as absenteeism, lateness, and turnover. There are also psychological withdrawal behaviors, including avoiding spending time on work tasks (Weber, 2019).

| Variable           | Dimensions                  | Questions                                                                 |
|--------------------|-----------------------------|---------------------------------------------------------------------------|
|                    |                             | I know the cause of the feelings I feel.                                  |
|                    |                             | I have a good understanding of my own emotions.                           |
|                    | Self-Emotion Appraisal      | I know how I feel.                                                        |
|                    |                             | I know whether I am happy or not.                                         |
|                    | Others’ Emotion Appraisal   | I understand my friends’ emotions from their behavior.                    |
|                    |                             | I am a reasonable observer of other people’s emotions.                    |
|                    |                             | I am sensitive to the feelings of others.                                 |
|                    |                             | I am sensitive to the emotions of those around me.                        |
|                    | Use of Emotion              | I have goals to achieve.                                                  |
|                    |                             | I am a competent person.                                                  |
|                    |                             | I am a motivated person.                                                  |
|                    |                             | I always encourage myself to do my best.                                  |
|                    | Regulation of Emotion       | I can control my emotions and respond to difficulties rationally.         |
|                    |                             | I can control my anger.                                                   |
|                    |                             | I can get rid of emotions quickly.                                        |
|                    |                             | I can control my feelings well.                                           |
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| CWB | Description |
|-----|-------------|
| Abuse | I spread negative gossip at work.  
I am rude to customers.  
I mock other people's job performance.  
I try to humble other people.  
I leave people at work.  
I accuse others of the mistakes I have made.  
I start fights at the office.  
I verbally harass other employees.  
I use finger movements to harass people in the office.  
I threaten violence to people at work.  
I physically threaten other employees.  
I say indecent things to people at the office.  
Other people seem bad to me.  
I humiliate other people using jokes.  
I have read private letters without permission.  
I beat up people in the office.  
I look down on other employees. |

| Productive Deviance | I have deliberately done bad work.  
I have intentionally worked slowly when the job needed to be done quickly.  
I failed to follow instructions on purpose. |

| Sabotage | I wasted the supplies provided at the office.  
I damaged property on purpose.  
I deliberately littered in the office. |

| Theft | I have stolen things that belonged to my boss.  
I have stolen office supplies/equipment.  
I manipulated my working hours to get paid more than I should have.  
I took my boss's money without permission.  
I stole people's belongings at the office. |

| Withdrawal | I came to work late without permission.  
I asked for sick leave even though I was not sick.  
I took a more extended break than arranged.  
I worked less time than I reported. |

Sources: Wong et al. (2017); Weber, 2019.

| Table 2 | Test Multivariate Normality |
|--------|-----------------------------|
| **Skewness** | **Kurtosis** | **Skewness & Kurtosis** |
| Value | Z-score | P-value | Value | Z-score | P-value | Chi-square | P-Value |
| 0.971 | 6.885 | 0.000 | 28.417 | 5.831 | 0.000 | 64.931 | 0.000 |

Source: Data processed (2020)
From the multivariate normality test table, it can be seen that the p-value is 0, but the GOF value of > 0.97 shows that this research can be continued. Furthermore, the validity test results identify 10 invalid indicators. Reliability testing can be analyzed via CR and VE (CR > 0.7 and VE > 0.5), and the test results show that the data is reliable. The results of the fittest using SEM processing are as follows.

### Table 3
**Goodness of Fit (GOF)**

| No. | Measure                          | Literature | Result | Criteria     |
|-----|---------------------------------|------------|--------|--------------|
| 1   | RMSEA p (close fit)             | P ≥ 0.05   | 0.063  | (Good fit)   |
| 2   | Normed Fit Index (NFI)          | NFI ≥ 0.90 | 0.96   | (Good fit)   |
| 3   |                                 | ≥ 0.90     | 0.97   |              |
| 4   |                                 | ≥ 0.90     | 0.94   |              |
| 5   | Non-Normed Fit Index (NNFI)     | ≥ 0.90     | 0.98   |              |
|     | Parsimony Normed Fit Index (PNFI)|            |        |              |
|     | Comparative Fit Index (CFI)     |            |        |              |
|     | Incremental Fit Index (IFI)     |            |        |              |
| 6   |                                 | ≥ 0.90     | 0.98   |              |
| 7   | Relative Fit Index (RFI)        | RFI ≥ 0.90 | 0.96   | (Good fit)   |
| 8   | Root Mean Square Residual (RMR) | RMR < 0.054| 0.028  | (Good fit)   |

Source: Data processed (2020)

Based on Table 3, it can be seen that only eight parameters meet the requirements of the 15 parameters of goodness of fit.

### RESULTS AND DISCUSSION

**Results**
The following table shows the demographic characteristics of the respondents.

### Table 4
**Descriptive Statistics**

| Variable | Category | Frequency | %  |
|----------|----------|-----------|----|
|          | < 21 years | 56        | 9.57 |
|          | 21-25 years | 356      | 60.85 |
|          | 26-30 years | 120      | 20.51 |
|          | 31-35 years | 39       | 6.67  |
|          | 36-40 years | 10       | 1.71  |
|          | 41-45 years | 3        | 0.51  |
|          | 45-50 years | 1        | 0.17  |
|          | Total     | 585       | 100.00 |

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| Income                  | < Rp 3,000,000 | 303 | 51.79 |
|-------------------------|----------------|-----|-------|
|                         | RP 3,000,000-Rp 6,000,000 | 79  | 13.50 |
|                         | Rp 7,000,000-RP 10,000,000 | 8   | 1.37  |
|                         | Rp 11,000,000-Rp 14,000,000 | 3   | 0.51  |
|                         | > Rp 15,000,000 |     |       |
| Total                   | 585            | 100.00 |

| Experience             | < 3 years | 351 | 60.00 |
|-------------------------|-----------|-----|-------|
|                         | 3-6 years | 206 | 35.21 |
|                         | 7-10 years| 17  | 2.91  |
|                         | > 10 years| 11  | 1.88  |
| Total                   | 585       | 100.00 |

The participants in this study are 20 to 50 years old and work as employees of pest control companies in Indonesia; this age range constitutes the productive years in the country. Of the respondents, 450 were men and the rest were women. In this study, positions were not considered a benchmark, so respondents ranged from entry-level employees to directors. The data that will be analyzed was previously tested by Mahalanobis to see how much average information is in the results. Thirty of the answers were discarded and replaced with new solutions. Then, multivariate normality will be tested. Based on the test results, the p-Value was 0.000, so the data is not standard. However, due to the GoF-NNFI value of 0.97, the analysis can be continued in the next test.

This determination coefficient test aims to see how much influence the independent variable has on the dependent variable. A variable will have a substantial effect when its $R^2$ value approaches 1, while it will have a negligible effect when the $R^2$ value nears zero.

| Variable | $R^2$ | Result |
|----------|-------|--------|
| EI       | 0.68  | Strong |

Source: Data processed (2020)

The coefficient of determination ($R^2$) is 0.68, meaning that the display of CWB is influenced by EI. These results indicate that the independent variable and the dependent variable have a strong relationship. To determine the relationship between the variables, a suitability test was carried out using SEM.

| Hypothesis | T-Values | Result |
|------------|----------|--------|
| EI → CWB   | 2.75     | Negative |

Source: Data processed (2020)
These results indicate that the better a person can use their emotional intelligence, the more easily they can avoid deviant behavior, and vice versa.

Discussion

Emotional intelligence can be assessed in three ways: through self-reports, informant measures (how others perceive a person), and scales of ability or performance. This study examines employees via self-reports using the WLEIS model. Many other studies assess emotional intelligence using performance measures with the MSCEIT indicators.

Emotional intelligence (EI) involves the capacity to identify emotions in oneself and others and to understand, organize, and leverage this information productively. A person uses emotional intelligence in terms of abilities and traits (Lopes et al., 2003). The ability to use EI spans the boundary between reason and feeling. Trait measures include a large number of non-cognitive skills linked to success, such as self-control. According to Brannick (2009), the MSCEIT is linked to a person’s EI abilities, while the WLEIS is related to personality traits and industry-standard personality tests (NEO). Although a person’s knowledge is not connected with their personality, their character is (Yu & Takahashi, 2020).

Emotional intelligence competencies are not innate talents but are learned abilities that must be cultivated to achieve extraordinary performance. A person’s ability to use their emotions is believed to be critical for self-management and self-control. Indeed, many employees who cannot control their feelings engage in deviant behavior.

Deviant behaviors are alternative responses to typical negative feelings resulting from previous experiences in a group (Xu et al., 2020). A person is motivated to conform to the group’s normative expectations, which they see as valid. Based on what their peers are doing, they can lose motivation to work and gain inspiration to deviate from the company’s normative expectations.

The results of this study reveal a relationship between emotional intelligence and counterproductive work behavior indicated by a coefficient of -0.1 and a T-value of -2.88. This is a significantly negative correlation. An emotional intelligence of 76% on the scale can affect counterproductive work behavior. That is, the higher an individual’s emotional intelligence is, the less likely they are to enact CWB. This happens because emotional intelligence will directly affect the way an individual thinks, acts, and makes decisions.

In terms of age, 60.85% of the participants were 21-25 years old, and most had less than three years of work experience. Employees can be aware of their feelings at that age and can quickly identify their emotions. Employees can also quickly deal with negative emotions, appraise others’ feelings accurately, and express a high sense of empathy for those around them so that the possibility of being involved in CWB is minimal. The use of emotion is also associated with improved results and performance, since positive emotions, motivation, and enthusiasm will help create job satisfaction. Good use of emotions can reduce deviant behavior such as theft, abuse, and lack of productivity.

The results shown in this study differ from those of previous research, which found that emotional intelligence and counterproductive work behavior have a positive relationship. Al Ghazo et al., (2019) noted that to analyze the relationship between
emotional intelligence and CWB, one must also pay attention to the organizational climate. Organizational climate is a set of perceptions of the work environment, which are recognized directly or indirectly by individuals working in this environment and are considered to influence their behavior and motivate them (Maamari & Majdalani, 2017). It also includes what is deemed to be significant and what behavior is most expected and valued, and is based on shared perceptions among employees in the organization (Putter, 2010).

From the results above, it can be seen that the WLEIS method, which is more straightforward, can be used to measure an individual’s EI as effectively as the more complex MSCEIT.

CONCLUSION

Emotional intelligence is the ability to control and understand one’s own and others’ feelings, which is integral to regulating one’s behavior at work. Based on statistical tests, there is a negative relationship between emotional intelligence and counterproductive work behavior. This means that the higher an individual’s emotional intelligence is, the less likely they will be to engage in counterproductive work behavior. Meanwhile, when an individual’s level of emotional intelligence decreases, their tendency toward counterproductive work behavior rises.

This study implies that employees’ propensity to commit fraud will decrease if companies can increase their emotional intelligence. Moreover, if CWB can be reduced in the group, it can enhance individual productivity and lower cheating at work. Therefore, rather than interviewing strictly for intellectual ability, companies can hire employees with a higher EI to minimize CWB.

In future studies, we can investigate other variables that can influence counterproductive work behavior, such as individual personality and organizational climate, to produce a more nuanced model (Al Ghazo et al., 2019; Kozako et al., 2013). Moreover, employees in other service-oriented occupations can be surveyed to see if differences exist based on industry.

Based on this research, companies can develop EI training for their employees to help them regulate their emotions and curb behavior that benefits them but harms the organization.

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