

# OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT, EMPLOYEE ENGAGEMENT, AND ORGANIZATIONAL CITIZENSHIP BEHAVIOR OF CLEANING WORKERS IN JAKARTA

**Suryani Maryam**

Universitas Pembangunan Nasional Veteran Jakarta

Email: [sunni\\_lubis@yahoo.com](mailto:sunni_lubis@yahoo.com)

## Abstract

The purpose of this research is to empirically test the effects of occupational health and safety management (OHS) and employee engagement associated with organizational citizenship behaviors (OCB). The study was conducted with 610 sewer cleaners in Jakarta Province and West Java Province-Indonesia using a survey instrument. Data analysis was done by Structural Equation Model (SEM). Three hypotheses were developed in order to determine the relationships between OHS management, employee engagement, and organizational citizenship behavior. The result of this study indicates that OHS management had a significantly positive impact on employees' engagement and organizational citizenship behavior. This study makes several contributions to employers that by developing a systematic and integrated OHS management at the workplace, it can increase employee engagement and organizational citizenship behavior.

**Keywords:** Occupational and Health Safety Management, Employee Engagement, Organizational Citizenship Behaviour.

## A. INTRODUCTION

In recent decade, the number of occupational accidents and work-related diseases has increased. High-risk workplaces requires the development of appropriate management practices (eg. effective leadership, communications, and audit) to optimize employees' health and well-being. Health control is needed to protect employees by anticipating, identifying, evaluating, controlling, and monitoring workplace health hazards.

Occupational health and safety management practices have become increasingly important for ensuring every job in a safe and healthy manner. Pater (1990) said that costs and liability can be reduced, employees' relationships can be improved, market themselves better, and morale and productivity is increased when the organization focuses on safety. This intensifies the organization to implement proper OHS management policies and practices to reduce risks and hazards better.

OHS management is a multidisciplinary concept that influences both private and social lives of employees in all spectrums of work. Dissatisfaction with the organization can occur when employees have work accidents. Robinson, et al. (2004) stated that the experience of injuries and accidents at work has a significant impact on the level of employee engagement. Neal and Griffin (2006) stated that the reduction of work accidents is related to OCB. Research has contributed that the perception of organizational justice has a positive relationship with engagement in OCB when utilizing representatives from higher-risk occupations, such as hospital staff, and labor and manufacturing employees (Organ & Konovsky, 1989; Moorman, 1991).

However, there have been fewer studies addressing the effects of occupational health and safety management on employee engagement, and thereafter on organizational citizenship behavior in sewer cleaners. In this respect, this study analyses whether there is a statistically

significant relationship between OHS management, employee engagement, and organizational citizenship behavior. Therefore, a theorized model was developed and then tested.

## **B. LITERATURE REVIEW**

### **1. Relationships between Safety Management and Employee Engagement**

Saks (2006) found that one of the factors that can increase engagement is by increasing employee perceptions of the support provided by the organization. Support provided by the organization (POS) can be done by providing guarantees for occupational health and safety through OSH programs.

Occupational Health and Safety management practices are designed to keep their employees working safely and comfortably. When organizations socialize work safety values, standard operating procedures, leaders pay attention to employee safety, employees recognize the organization's commitment to safety and safety values affect the psychological attachment between officers and leaders and the organization. Then, employees' perceptions of health and safety management issues are likely to influence the extent to which they become absorbed into their work. When employees judge that the organization cares about their health and well-being, they will try to respond more engagedly. May, et al. (2004) said that meaningfulness, safety, and availability were significantly related to engagement.

### **2. Relationships between Safety Management and Organizational Citizenship Behaviour**

Everyone who works in an organization wants to be able to work safely and comfortably. Organizations need to pay great attention to building a good work OHS management process. If the application of work OHS management is good and the work environment is safe and comfortable, employees are not stressed and do not experience work accident thereby increasing employee performance and employee loyalty.

Vinodkumar and Bhasi (2010) proposed that safety management practices can make employees comply with safety standards in order to achieve their job performance because these practices establish suitable conditions for employees to engage in behaviors that help to improve the safety culture of the organization. In addition, they argue that preventing workplace accidents involves the conscious decisions of the employees themselves. In this context, encouraging colleagues to work safely as a facilitation mechanism would result in whether they will comply with safety standards and procedures at work. Helping organizations or colleagues voluntarily to promote a safe work environment is also known as a form of organizational citizenship behavior (Didla, et al., 2009).

### **3. Relationships between Employee Engagement and Organizational Citizenship Behavior**

Kahn (1990) presented engagement as a construct with three facets (physical, cognitive and emotional) that are activated simultaneously to create an engaged state. One of the recent measures developed for employee engagement by Soane et al, (2012) consisted of three dimensions, namely intellectual, social and affective dimensions.

The relationship between employee engagement and OCB can be explained by flow theory. Jeanne Nakamura and Csikszentmihalyi (2001) argue that a good life is characterized by being focused, being fully engaged, and enjoying the process. In other words, the concept of Flow marks the total absorption of what someone is doing. Mihaly Csikszentmihályi (1990) said "Flow" can be produced by engagement. One dimension of flow contains intrinsic work motivation which shares the same similarity with OCB dimensions, especially civic virtue, which is defined as behavior that reveals employees are in deep concern, and has full interest in organizational life or work-related activities (Law, Wong & Chen, 2005).

Employees do not only concentrate on their physical efforts on pursuing goals related to the role, but also are cognitively alert and emotionally connected to these efforts when they have a sense of attachment to their work (Kahn, 1990; Ashforth & Humphrey, 1995). Conversely, employees who are very disengaged in their work roles are unwilling to expand their physical, cognitive, and emotional energy, and this is reflected in the best, robotic, passive and separate task activities (Kahn, 1990). Employees who have engagement will try harder to augment organizational performance, not only by improving their own performance, but also by focusing on the overall development of the organization. Previous studies said that job engagement is a potential predictor in organizational citizenship behavior (Rich, Lepine & Crawford, 2010).

There is research that has been done to determine the relationship between employee engagement and OCB. A study based on Thai organizations by Rurkkhum (2010) found that there was a positive relationship between employee engagement and organizational citizenship behavior. Moreover, Islam, et al., (2012) has done research of employees working in various sectors located in Malaysia supporting findings that all other constructions had a positive relationship with employee involvement, except politeness (Islam, et al., 2012). Some other studies that supported the positive relationship between employee engagement and OCB are Saks (2006); Thayer (2008); Thomas (2011); Barman (2012) and Finkelstein (2013).

## **C. METHOD**

### **1. Sample and procedures**

Data were collected using surveys designed to assess and link existing OHS management, employee engagement level, and organizational citizenship behavior. A survey was administered to 610 freelance daily workers in Greater Jakarta Province and West Java Province who removed garbage from rivers; details of which were as follows: 15.6% are employees who were less than 25 years old, 19.7% were between 26 years and 30 years old, 17.7% were between 31 years and 35 years old, 18.0% were between 36 years and 40 years old, and 29.0% were over 40 years old. Thus, the age of the majority of the study sample was more than 40 years old. Most respondents graduated from senior high school, and only 3 % respondents had a bachelor's degree.

The survey included questions related to the organization's demographics and employment information related to the survey respondents, OHS management practices utilized at the organization, the perceived level of employee engagement, and organizational citizenship behavior.

### **2. Measures**

A questionnaire was designed as the measure instrument for variables. It contained three variables: occupational health and safety management, employee engagement, and organizational citizenship behavior. It was constructed by using a six-point Likert scale ranging from 1 to 6.

### **3. Occupational Health and Safety Management**

Occupational health and safety management was measured by using a revised and updated version from previous studies of Vinodkumar and Bhasi (2010) and Zanko dan Dawson (2012). There are 31 items using a six-point Likert scale ranging from 1 (never) to 6 (always) with higher scores representing higher safety management. In particular, 31 OHS management items can be categorized into six dimensions, namely occupational health and safety training, employee involvement in work safety, communication and feedback, rules and procedure, safety promotion policy, and safety audit. Reliability test based on Construct

Reliability (CR) dan Variance Extracted (VE) for three dimensions of safety climate were 0.95 and 0.96.

#### **4. Employee Engagement**

Participants were asked to rate engagement questionnaires by using 20 measures as recommended by Tiwari and Lenka (2016), ISA Engagement Scale (2012), and Soane, et al. (2012). There were 20 items using a six-point Likert scale ranging from 1 (never) to 6 (always) with higher scores reflecting higher engagement. In particular, 20 employee engagement items can be categorized into five dimensions, namely, intellectual engagement, social engagement, affective engagement, physical engagement, and organizational engagement. Construct Reliability (CR) dan Variance Extracted (VE) for five dimensions of employee engagement were 0.88 and 0.86 respectively.

#### **5. Organizational Citizenship Behaviour**

Organizational citizenship behavior was measured by modifying several OCB measures, drawn on the theoretical and prior studies by Podsakoff, MacKenzie, Moorman, Fetter (1990), Bell & Menguc (2002), Hui, Lee, & Rousseau (2004), and Podsakoff & McKenzie (1994). OCB was measured by 21 items using a six-point Likert scale where 1 corresponded to “never” and 6 represented “always” and were intended to capture OCB demonstrated by freelance daily workers (“orange employees”). These OCB items were identified as four dimensions, namely altruism, conscientiousness, civic virtue, and courtesy. Scale scores were created such that higher scores reflected higher performance of the organizational citizenship behavior. Reliability test was based on Construct Reliability (CR) dan Variance Extracted (VE) for four dimensions of OCB with the value of 0.92 and 0.92.

#### **6. Analytical Method**

Data were analyzed using Structural Equation Modelling with Lisrel 8.8. We used a two-stage approach to minimize the changes to prevent any interaction between the structural and the measurement models (Hair, et al., 2006). First, the measurement model for each construct was independently checked for validity and reliability. To validate the measures and the fit of the conceptual model, unidimensionality, item reliability, and discriminate validity were examined in this research to validate the measures and the fit of conceptual model unidimensionality (Iacobucci and Churchill, 2010). There are two approaches that can be done to assess the reliability of the measurement model, namely the test construct reliability and variance extracted on each latent variable. Construct reliabilities and variance extracted estimates are useful in establishing convergent validity. Discriminant validity is supported when the average variance extracted for a construct is greater than the shared variance between constructs (Hair, et al, 2010). The cut-off value of the construct reliability test is accepted when its value is higher than 0.70.

The second stage of the two-stage approach involved analyzing the structural model to test the research hypotheses (Anderson and Gebing, 1988). The results of factor loading of safety climate, employee engagement, and OCB were found to be good fit. Table 1 summarizes the goodness-of-fit index, and it was revealed that the models met the level of goodness-of-fit for this study.

### **D. RESULT AND DISCUSSION**

The results showed that goodness-of-fit index was calculated to be 0.93. This indicated that 93 per cent of the variances and covariances in the data observed were predicted by the estimated model. Moreover, results of fitting the structural model to the data revealed that the model had a good fit as indicated by the Normed Fit Index (NFI = 0.99), Comparative Fit Index

(CFI = 0.99) and Root-Mean-Square Error of Approximation (RMSEA = 0.065), Relative Fit Index (RFI = 0.99).

**Table 1. The Result of Structural Model Parameter Estimation**

Path	Standardized	t-value
OHS Management → OCB	0.536	9.22
Employee Engagement → OCB	0.210	3.79

Table 1 encapsulates the hypotheses testing results indicating that all hypothesized relationships were significant and in the expected direction. As shown in Table 1, OHS management has a positive and significant effect on organizational citizenship behavior. Regression coefficient = 0.536;  $t_{\text{value}} = 9.22 > t_{\text{table}} = 1.96$ . Then, employee engagement has a positively significant relationship with OCB. Regression coefficient = 0.210;  $t_{\text{value}} = 3.79 > t_{\text{table}} = 1.96$ .

Theoretically, this study highlights the importance of OHS Management and employee engagement in explaining the OCB of employees. Moreover, the study answers several important questions: OHS management and employee engagement affect employees' OCB in carrying out their work as a sewer cleaner.

OHS management has a significant relationship with OCB. It is generally recommended throughout the literature that OCB can result from organizational commitment (Organ & Ryan, 1995; O'Reilly & Chatman, 1986; LePine, Erez, & Johnson, 2002; Lambert, Hogan, & Griffin, 2008). Employees will show a higher level of commitment, which can motivate them to support the functioning of the organization positively in various ways, including engaging in OCB if they experience positive exchanges with the organization (Cohen, 2003; Cohen & Keren, 2008; O'Reilly & Chatman, 1986; as quoted by Liu & Cohen, 2010). Carson and Carson (1998) proved the existence of this relationship in high-risk organizations by using a sample of nurses in America. One of the OHS management dimension is occupational health and safety training. When organization transfers knowledge about occupational health and safety with the whole organization, employees recognize the company's safety commitment. Employees have a very strong sense of attachment and then the consequent behaviors can be a reduction in turnover intention, safety behavior, and citizenship behavior.

Another possible reason for the significance is all of the respondents were male; they worked in a place with a potential risk of hazards. Past studies showed that gender role stereotypes have an impact on certain work behaviour. In a meta-analytic study, Balliet, Li, Macfarlan, and Van Vugt (2011) found that men are more cooperative than women in same-sex groups and become more cooperative over repeated iterations of a dilemma with the same partner. Eagly (2009) argued that men are more likely to engage in chivalrous or heroic acts of helping that require physical strength than are women. Assertiveness and performance are seen as indicators of greater agency in men, and warmth and care for others are viewed as signs of greater communality in women (Kite, et al. 2008). Moreover, masculine behaviors are typically more aggressive and independent than feminine behaviours (Spence & Helmreich, 1980).

Godfrey (2003) found that helping behaviors (OCB-I) were more consistent with participants' schema for women, whereas civic virtue behaviors (OCB-O) were more consistent with participants' schema for men. Chiaburu, Sawyer, Smith, Brown, and Harris (2014) found that by activating gender stereotypes, more civic virtue are expected from male employees than from female employees. Thus, the OCB dimensions can be divided by gender roles. In the case of this study, civic virtue is regarded as more in-role for men (Spence & Helmreich, 1980).

The second finding of this research indicates that there is a significant relationship between employee engagement and organizational citizenship behavior. Employees who have

a sense of attachment to the company will give extra effort to increase organizational performance, not only by improving their own performance, but also by focusing on the overall development of the organization. A study by Rurkkhum (2010) demonstrated that employee engagement has a positive relationship with OCB. Kataria, et al. (2012) also stated that employee engagement has potential to drive OCB.

### **E. CONCLUSION**

The results of our study are relevant to both researchers and practitioners. Each safety management practice characterized represents a valuable tool that practitioners can use to improve organizational citizenship behavior and to increase worker engagement. These practices reasonably represent a much needed simple approach to improve organizational citizenship behavior that can be utilized by organizations as a focal point in building, improving, or maintaining an effective workplace safety program.

These theoretical ideas and empirical results also give an approach to human safety performance management with rich prospect for further theoretical development and empirical exploration for academic researchers. However, our research results also indicate that the effectiveness of a safety management system and its practices in increasing organizational citizenship behavior depends on the levels of worker engagement. Thus, when organizations commit in a safety management system approach to boost organizational citizenship behavior, they should also be concerned about overtly winning over the minds and hearts of their workers through a system of employee engagement.

Thus, it may not be enough for organizations to only mechanically implement safety management system, but also it may be equally necessary for organizations to foster the cognitive, affective, and organizational commitment of workers. However, this fostering of employee engagement does not have to be distinct or independent from the safety management system practices themselves.

### **ACKNOWLEDGEMENT**

The authors would like to express gratitude to the Ministry of Finance through *Lembaga Pengelola Dana Pendidikan* (LPDP) and Ministry of Research, Technology and Higher Education (Kementrian Riset, Teknologi dan Pendidikan Tinggi) for providing the funds of this research.

### **REFERENCES**

- Allameh, S. M., Shahriari, M., & Mansoori, H. (2012). Investigating Employee's Attitude toward Organization, Organizational Climate and Employee's Engagement as Antecedents of Organizational Citizenship Behavior Australian. *Journal of Basic and Applied Sciences*, 6(8), 384-393.
- Ariani, D. W. (2013). The Relationship between Employee Engagement, Organizational Citizenship Behavior and Counterproductive Work Behavior. *International Journal of Business Administration*, 4(2), p46.
- Bandalos, D. L. (2002) The Effects of Item Parceling on Goodness-of-Fit and Parameter Estimate Bias in Structural Equation Modeling'. *Structural Equation Modeling: A Multidisciplinary Journal*, 9(1): 78–102.
- Churchill, G.A. and Iacobucci, D. (2002), *Marketing Research: Methodological Foundation*, 8th ed., South-Western, OH.
- Colquit, Jason A; Jeffrey A.Lefine (2013). *Organizational Behaviour : Improving Performance and Commitment in The Work Place*. Mc. Graw-Hill/Irwin.

- Dejoy, D. M., Della, L. J., Vandenberg, R. J., & Wilson, M.G. (2010). *Making Work Safer : Testing A model of Social Exchange and Safety Management*. J. Saf. Res. 41, 163e171.
- Dollard, F.M & Bakker, B. A. (2010). Psychosocial Safety Climate as A precursor to Conducive Work Environments, Psychological Health Problems, and Employee Engagement. *Journal of Occupational and Organizational Psychology* (2010), 83, 579–599
- Eagly, A. H., & Crowley, M. (1986). Gender and Helping Behavior: A meta-analytic Review of The Social Psychological Literature. *Psychological Bulletin*, 100(3), 283–308.
- Eagly, A. H. (2009). *The His and Hers of Prosocial behavior: An examination of The Social Psychology of Gender*. American Psychologist, 64, 644–658.
- Ehrhart, M. G., & Godfrey, E. G. (2003). *The Role of Schemas in Gender and Organizational Citizenship Research*. Paper presented at the 18th Annual Conference for the Society of Industrial and Organizational Psychology, Orlando, FL.
- George, G. & Joseph, B. (2015). A Study on the Relationship between Employee Engagement and Organizational Citizenship with Reference to Employees Working in Travel Organizations. *Atna-Journal of Tourism Studies*.
- Hair, J.F., Black, W.C., Babin, B.J. & Anderson, R.E. (2010). *Multivariate Data Analysis* (7 th Ed). Englewood Clift, NJ: Prentice Hall.
- Hoyle, R.H. (ed.) (2016) *Handbook of Structural Equation Modeling*. The Guilford Press. New York: The Guilford Press.
- Hsiang H. (2015). Beyond Safety Outcomes: An investigation of The Impact of Safety Climate on Job Satisfaction, Employee Engagement and Turnover Using Social Exchange Theory as The Theoretical Framework. *Journal of Applied Ergonomics* 55, 248-257.
- Islam, T., Khan, S. U. R., Aamir, M., Ahmed, I., Ahmad, U. N. K U., & Shaukat., M. Z (2012): Moderating Role of HRD Practices between Employees' Engagement and Citizenship Behaviour. *Middle –East Journal of Scientific Research* 12(5): 589-597.
- Kahn, W. A. (1990). *Psychological Conditions of Personal Engagement and Disengagement at Work*. *Academy of Management Journal*, 33(4), 692-724
- Kataria, A., Garg, P., & Rastogi, R. (2012-13), Employee Engagement and Organizational Effectiveness: The Role of Organizational Citizenship Behavior. *International Journal of Business Insights & Transformation*. Oct 2012-Mar2013, 6(1), p102-113.
- Kidder, D. L. (2002). The Influence of Gender on The Performance of Organizational Citizenship Behaviors. *Journal of Management*, 28(5), 629–648.
- Koradecka, D. (2010). *Handbook of Occupational Safety and Health*. United State: CRC Press.
- Lee, T.Z., Wu, C.H., & Hong, C.W. (2007) An Empirical Investigation of the Influence of Safety Climate on Organizational Citizenship Behavior in Taiwan's Facilities. *International Journal of Occupational Safety and Ergonomics*, 13(3), 255-269.
- LePine, J.A., Erez, A., & Johnson, D. E. (2002). The Nature and Dimensionality of Organizational Citizenship Behavior: A Critical Review and Meta-Analysis. *Journal of Applied Psychology*, 87(1), 52-65. <http://dx.doi.org/10.1037/0021-9010.87.1.52>
- Luthans, Fred. (2010). *Organizational Behaviour*, 12 th Edition, Intenational Edition, New York : McGraw-Hill Companies, Inc.
- Mansoor, N., Aslam, H. D., Javad, T., Ashraf, F., & Shabbir, F. (2012). Exploring Organizational Citizenship Behavior and Its Critical Link to Employee Engagement for Effectual Human Resource Management in Organizations. *Mediterranean Journal of Social Sciences*, 3(1).
- Mihaly, C. (1990). *Flow: The Psychology of Optimal Experience*. Harper & Row. ISBN 978-0-06-016253-5.

- Nahrgang, Morgeson & Hofman. (2010). Safety at Work : A Meta-Analytic Investigation of The Link Between Job Demands, Job Resources, Burnout, Engagement and Safety Outcomes. *Journal of Applied Psychology*.
- Neal, A., Griffin, M.A., Hart, P.M., (2000). The Impact of Organizational Climate on Safety Climate and Individual Behaviour. *Journal of Safety Science* 34, 99–109.
- Neal, A., & Griffin. (2000). Perceptions of Safety at Work: A Framework for Linking Safety Climate to Safety Performance, Knowledge, and Motivation. *Journal of Occupational Health Psychology*, 5(3), 347-358.
- Organ, D. W., Podsakoff, P. M., & Podsakoff, N. P. (2011). *Expanding the Criterion Domain to Include Organizational Citizenship Behavior (OCB): Implications for Employee Selection*. In S. Zedeck (Ed.), *APA handbook of industrial and organizational psychology* (Vol. 2, pp. 281–323). Washington, DC: APA.
- Podsakoff, N. P., Whiting, S. W., Podsakoff, P. M., & Blume, B. D. (2009). Individual-and Organizational-Level Consequences of Organizational Citizenship Behaviors: A metaanalysis. *Journal of Applied Psychology*, 94(1), 122–141.
- Podsakoff, P. M., MacKenzie, S. B., & Organ, D. W. (2006). *Organizational Citizenship Behavior: Its Nature, Antecedents, and Consequences*. Beverly Hills, CA: Sage.
- Randall DM. *Commitment and the Organization: The Organization Man Revisited*. *Acad Manage Rev*. 1987;12:460–71.
- Rurkkhum, S (2010); The Relationship between Employee Engagement and Organizational Citizenship Behaviour in Thai Organizations. *Atna-Journal of Tourism Studies*.
- Soane, E., Truss, C., Alfes, K., Shantz, A., Rees, C., & Gatenby, M. (2012). Development and Application of A new Measure of Employee Engagement: The ISA Engagement Scale. *Human Resource Development International*, 15(5), 529-547.
- Thomas, E. A. (2011). *Personality Characteristics and Behavioral Outcomes Associated with Engagement in Work-Related Roles*. Alliant International University, Los Angeles.