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OCCUPATIONAL HEALTH AND SAFETY (OHS) AND ORGANIZATIONAL COMMITMENT: EVIDENCE FROM THE CONSTRUCTION INDUSTRY OF SRI LANKA

Abstract

This study examines the relationship between OHS management practices and employee organizational commitment in the construction industry of Sri Lanka. The survey was carried out among labourers in the construction industry, chosen using convenience sampling. Data were collected by distributing a self-administered anonymous structured questionnaire among 250 labourers where 155 were received. Data analyses were performed using the SPSS 23.0. Upon completing the preliminary analyses, the relationship was determined using correlation and regression analyses. Results indicated a significant positive relationship between OHS management practices in the industry and forms of organizational commitment – affective, normative, and continuance.

Keywords: construction industry, labourers, occupational health and safety (OHS) management practices, organizational commitment, Sri Lanka

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Introduction

The construction industry is one of the most dangerous and hazardous industries in the world (Jaseiskis, Suaza, 1993; Sacks, Rozenfeld, Rozenfeld, 2009) as well as in Sri Lanka. It reports a very higher rate of fatalities and injuries (Halwatura, Jayatunga, 2013). Despite its hazardous nature, the industry contributes largely to the overall Gross Domestic Product (GDP) of Sri Lanka and it saw a large acceleration from year 2010 onwards with the end of the thirty year old war in the country (Widanagamachchi, 2015). Thereby it generates a large number of employment opportunities for both skilled and unskilled labor. Overall, there are over 350, 000 construction based unfilled employment opportunities at present in Sri Lanka (Wijeratne as cited in Sirimanne, 2018).

Human Resource (HR) or labor is one major resource in the construction industry as they are the group which combines all other resources identified in management as 5Ms to generate the final construction (Widanagamachchi, 2015). However, a major challenge faced by this industry of the country at present is the poor commitment and lack of motivation among the workforce, which has led to shortages in supply of labor and challenges in employee retention (Ojo, 2013). Three main categories of employees are identified in the industry as, the i) management and technical workforce, ii) skilled workforce, and iii) unskilled workforce (Vitharana, De Silva, De Silva, 2015). Though all these categories are exposed to risks of being injured, dead, or becoming occupationally sick, the degree of danger is relatively high for the skilled and unskilled site laborers.

Given this situation, the construction industry of Sri Lanka not only generates economic opportunities for the nation, but also poses major threats in the area of OHS of employees (Darshana, 2017). Hence, it is an important area that needs serious attention, as the safety hazards and accidents in construction sites have a broad individual and social impact (e.g., personal suffering of injured employees, construction delays, losses in man days and productivity, and higher insurance premiums and legal liabilities for parties involved) (Rameezdeen, Pathirage, Weerasooriya, 2006). Out of the fatalities reported to the Industrial Safety Division of the Ministry of Labor, 50% are from the construction industry (Darshana, 2017), confirming the unacceptably elevated rate of accidents in the construction field in the country. According to the International Labor Organization (ILO), 860,000 occupational

accidents occur on a daily basis and the cost for occupational illnesses and accidents is estimated at US\$ 2.8 trillion worldwide.

In spite of these startling figures both around the world as well as in Sri Lanka, only a limited number of empirical studies have been undertaken looking at the area of OHS practices from a Human Resource Management (HRM) perspective. In a situation where the construction industry is facing a huge shortage of labour and issues related to low worker commitment and motivation with high turnover rates (Widanagamachchi, 2015), it is surprising that the author could not find any studies examining the relationship between OHS management practices and employee commitment. Considering this lacuna in research this paper sets out to investigate the OHS management practices from the perspectives of employees and its implications on employees' work related attitude of organizational commitment.

1. Literature Review

OHS management practices of organizations focus on promoting safety, health, and welfare of people engaged in employment (Bhagawati, 2015). It covers all the aspects related to the overall well-being (physical, mental, and emotional) of an employee (Amponsah-Tawiah, Dartey-Baah, 2011). OHS management practices of organizations have largely found contributing to Employee Well-Being (EWB), commitment, motivation, and performance and thereby towards the achievement of overall organizational goals (Amponsah-Tawiah, Mensah, 2016). These findings related to positive consequences have encouraged the introduction of OHS programmes primarily concerned on the area of prevention of ill-health arising from workplace conditions. In addition, these programmes need to emphasize on prevention of accidents and minimizing the loss and damage to lives and properties (Adeniyi, 2001). One major mistake committed by organizations across industries is the consideration of OHS management activities as less important than other management activities. But, Boyle (2000) states that the managers should consider it as important as other activities focused on improving firm productivity. This confirms that the managers commit a grave mistake by considering expenditure incurred on OHS management systems as a cost rather than an investment for the firm. When managers take the wider perspective they realize that the management of safety at the organization is not simply about the prevention of occurrence of industrial accidents but integrating the OHS management systems to the productivity and quality management system of the business (Amponsah-Tawiah, Mensah, 2016).

The subject of OHS in the construction industry around the world and Sri Lanka is largely under discussion, because of the expansion of the industry as well as its contribution to the national GDP (Dainty, Loosemore, 2013). The process of ensuring the OHS of workers in construction sites is a very complex task for the employers due to its outdoor operation, work at heights, use of complex equipment, and poor conduct of workers towards preventive safety (Halwatura, Jayatunga, 2013). Despite all these challenges, the employers in the construction field need to focus their attention to this as the rates of industrial and occupational injury related deaths and disabilities are on the rise in developing nations (e.g., Sri Lanka) (Demba, Ceesay, Mendy, 2013). As the industry becomes highly prone to occupational injury related deaths and disabilities, it affects on the work related attitudes of employees towards the organizations. Thus, the employers of organizations in these highly hazardous industries need to pay their serious consideration on improving the OHS management practices of their firms to improve the work related attitudes of employees (e.g., devotion, motivation, job satisfaction, and organizational commitment).

In addition, the above argument is supported by the theories based on the norm of reciprocity (Gouldner, 1960) such as the Social Exchange Theory (SET), which proposes that the behavior of people in the society is a result of the exchange process where both parties try to attain mutual gains at a minimum cost (Blau, 1964). Accordingly, it could be further argued that employees will weigh the benefits of staying loyal and committed to an organization as they realize that they enjoy the benefits of the same in the form protection for their lives and health in the highly dangerous construction sites. Similarly, when they feel the risks and dangers in the working environment, the workers may perceive it as less rewarding and will tend to manifest more withdrawal behaviors. Employees will consider provision of poor working conditions as an unkind act by the employer and thereby develop a weaker rapport with the organization characterized by poor devotion and commitment (Falk, Fischbacher, 2006).

Based on the above theoretical and empirical support, the purpose of this paper is to estimate the relationship and the impact of OHS management practices on organizational commitment of skilled and unskilled laborers in the construction industry in Sri Lanka.

2. Materials and Methods

This quantitative study followed the deductive approach. The population of the study are all skilled and unskilled construction laborers in construction sites under private companies in Sri Lanka. A sample of 155 laborers were selected using the convenience sampling technique based on willingness and availability of respondents for the survey.

Author used a self-administered, anonymous, structured questionnaire for collecting primary data. The questionnaire comprised of three sections, with two sections measuring the variables and a demographic details section. Two variables were measured using standard measures and that ensures the content and criterion validity of the questionnaire. The questionnaire was originally in English and it was translated to Sinhala and back translated into English before administering using the paper and pencil format. Participation in this study was purely voluntary for the laborers and no rewards were given.

Employee organizational commitment was measured with the 24-item, cross culturally validated 'Organizational Commitment Questionnaire (OCQ)' by Allen and Mayer (1990), comprising three dimensions as affective, continuance, and normative commitment on a 7-point scale from 1 ('strongly disagree') to 7 ('strongly agree'). Overall reliability statistic for the data collected on this measure is acceptable ($\infty = 0.93$). Perception of employees on OSH management practices in their organizations was measured using the 50-item Workplace Safety Scale (WSS), developed and validated by Hayes, Perander, Smecko, and Trask (1998) covering five factorially distinct constructs related to workplace safety. Respondents were asked to indicate the extent to which they agreed with the statement on a 5-point scale from 1 ('strongly disagree') to 5 ('strongly agree'). Overall reliability statistic for the data collected on this measure is acceptable ($\infty = 0.86$).

Sample comprised of only male employees (100%), as the labour force in the Sri Lankan construction industry is largely male dominated (Rameezdeen et al., 2006). Some of them were married and the others were single. The majority in the sample belonged to the age group of 35–45 years. All respondents were 20 years or older. Of the workers, 65 were skilled workers and 90 were un-skilled workers. The sample mostly comprises of un-skilled laborers having only GCE O/L and A/L qualification. All the skilled laborers possess a vocational qualification.

3. Data Analyses and Results

Data analyses were performed using the SPSS 23.0. Initially the preliminary analyses were performed to ensure entry accuracy, missing data analyses, normality, linearity, reliability, and absence of common method variance.

Upon confirmation that there is no violation of basic assumptions, the relationship between OHS management practices and organizational commitment was calculated using the Pearson's Product Moment Correlation. The results indicated a strong positive correlation between the two variables (r = 0.78, p < 0.01). In addition, the impact of OHS management practices on organizational commitment was calculated using Simple Linear Regression Analysis and the results indicated that the model was statistically significant (F = 58.23, p < 0.01). The R^2 value indicated that OHS management practices accounted for 35% ($R^2 = 0.35$) of the variation in organizational commitment of the skilled and un-skilled laborers.

4. Discussion

The findings confirmed that there is a strong positive relationship between OHS management practices and organizational commitment of skilled and unskilled labourers in the construction industry of Sri Lanka. These results indicate that when employees have a positive perception about the OHS management practices of their organization, they would develop an emotional attachment with the company and thereby become committed to their work and remain loyal to the company. Zeidan (2006) states that when employees are committed to their organizations, they are less likely to engage in withdrawal behaviours (absenteeism, poor performance, and quitting) commonly observed among labourers in the construction industry. The results of this study are consistent with the assertions of Cooper (1995) that the top managements of organizations should consider OHS management practices as a priority to create the loyalty of employees towards the organization, especially in highly hazardous work contexts. Findings are also consistent with Meyer and Allen (1991) who state that employees would be committed towards the organization as a form of reciprocation when organizations make significant investments for training employees in the area of health and safety. When employees are happy about the OHS procedures of organizations, they compare them with those of other organizations and the construction industry being a very hazardous industry, employees tend to stay in the organization with better OHS management systems and contribute favourably to its requirements. The findings thereby confirm that when organizations fail to ensure better working conditions (e.g., proper lighting and heating, proper noise control, better supervision) that leads to poor employee organizational commitment (Sinclair, Tucker, Wright, Cullen, 2005). Thus, it confirms that to retain a committed workforce in the organization at a time of labor shortage, the firms in the construction industry need to provide an effective OHS system and thereby display the corporate commitment towards the OHS of employees.

Limitations and Directions for further research

Data collection for the study was done at a time where the government and the companies were opening up the skilled and unskilled labourer positions to the Indian, Chinese, and Burmese cheap labour and the author is in doubt as to whether these risks affected the responses. This study analysed the data at the variable level and the future studies would be able to generate better insights through a dimensional analysis. Accordingly, it would be able to identify the impact of OHS management practices on the three types of employee organizational commitment separately. In addition, a study can be undertaken to identify the most significantly impactful OHS management practice on employee organizational commitment by calculating the relationships between each factorial construct within the OHS management practices and overall organizational commitment.

Conclusion

This paper investigated the association between OHS management systems and organizational commitment of skilled and un-skilled labourers in the construction industry of Sri Lanka. The results indicated that OHS management practices have a strong positive correlation and a higher impact on organizational commitment of this category of employees. Expecting employees to just become committed will be useless, as today's employees expect their employers to think about the OHS needs of the workforce through the institution of a sound OHS management system. Thus,

the managements of construction companies in Sri Lana should largely consider further about investing in OHS management systems to protect the OHS of employees and thereby increase their organizational commitment.

References

- Adeniyi, J.A. (2001). Occupational health: a fundamental approach. *Haytee Organization*, 46.
- Allen, N.J., Meyer, J.P. (1990). The measurement and antecedents of affective, continuance, and normative commitment to the organization. *Journal of Occupational and Organizational Psychology*, *1* (63), 1–18.
- Amponsah-Tawiah, K., Dartey-Baah, K. (2011). The mining industry in Ghana: a blessing or a curse. *International Journal of Business and Social Science*, 2 (12), 81–94.
- Amponsah-Tawiah, K., Mensah, J. (2016). Occupational health and safety and organizational commitment: Evidence from the Ghanaian mining industry. *Safety and Health at Work*, 3 (7), 225–230.
- Bhagawati, B. (2015). Basics of occupational safety and health. *IOSR Journal of Environmental Science, Toxicology and Food Technology (IOSR-JESTFT)*, 1 (9), 91–94.
- Blau, P.M. (1964). Exchange and power in social life. Transaction Publishers.
- Boyle, T. (2000). Health and safety: Risk management. London: Institute of Safety Health.
- Campbell, D.T., Fiske, D.W. (1959). Convergent and discriminant validation by the multi-trait-multimethod matrix. *Psychological Bulletin*, 2 (56), 81–105.
- Cooper, D. (1995). *Measurement of safety climate: a component analysis*. Institute of Safety Health (IOSH) meeting on 1 Feb 1995 [Internet]. Available from: http://www.bAsafe.net/articles/bsms1.pdf (15.06.2018).
- Dainty, A., Loosemore, M. (Eds.) (2013). *Human Resource Management in Construction Projects*. Routledge.
- Darshana, W.D. (2017). Improvement of health and safety in construction sites in Sri Lanka. *Engineer: Journal of the Institution of Engineers, Sri Lanka*, 1 (50), 53–70.
- Demba, E., Ceesay, O.M., Mendy, G.D. (2013). Prevention of work-related accidents, including high-risk sectors such as agriculture, construction, and mining. Work accidents and occupational diseases in Africa. The Gambia Country Report on ISSA Seminar.
- Falk, A., Fischbacher, U. (2006). A theory of reciprocity. *Games and Economic Behavior*, 2 (54), 293–315.
- Gouldner, A.W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review*, 2 (25), 161–178.

- Halwatura, R.U., Jayatunga, T.L. (2013). *Health and safety aspects in building construction industry in Sri Lanka*. Available from: http://dl.lib.mrt.ac.lk/handle/123/9056 (15.06.2018).
- Hayes, B.E., Perander, J., Smecko, T., Trask, J. (1998). Measuring perceptions of workplace safety: Development and validation of the work safety scale. *Journal of Safety Research*, *3* (29), 145–161.
- Jaseiskis, E.J., Suaza, G.A.R. (1993). Safety assessment in the built environment of Saudi Arabia. *Safety Science*, 1 (23), 60–74.
- Kline, R.B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York: The Guilford Press.
- Meyer, J.P., Allen, N.J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, 1 (1), 61–89.
- Ojo, A.F.J. (2013). Influence of organizational culture on construction workers' commitment in Lagos, Nigeria. Paper presented at West Africa Built Environment Research (WABER) Conference. August, 733–750.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., Podsakoff, N.P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *5* (88), 879–903.
- Rameezdeen, R., Pathirage, C., Weerasooriya, S. (2006). Study of construction accidents in Sri Lanka. *Built-Environment Sri Lanka*, 1 (4), 27–32.
- Sacks, R., Rozenfeld, O., Rosenfeld, Y. (2009). Spatial and temporal exposure to safety hazards in construction. *Journal of Construction Engineering and Management*, 8 (135), 726–736.
- Sinclair, R.R., Tucker, J.S., Cullen, J.C., Wright, C. (2005). Performance differences among four organizational commitment profiles. *Journal of Applied Psychology*, 6 (90), 1280–1287.
- Sirimane, S. (2018). Over 350, 000 construction employment opportunities not filled Wijeratne. *Daily News*, February 21st (Online edition).
- Vitharana, V.H.P., De Silva, G.H.M.J., De Silva, S. (2015). Health hazards, risk and safety practices in construction sites—a review study. *Engineer: Journal of the Institution of Engineers, Sri Lanka*, 3 (48), 35–44.
- Widanagamachchi, U.C. (2015). *The Labor motivation of construction industry in Sri Lan- ka*. Available from: http://dl.lib.mrt.ac.lk/handle/123/10698 (15.06.2018).
- Zeidan, S. (2006). Workers' affective commitment and their willingness to perform discretionary work behavior: The impact of commitment-oriented human resources management practices. *Journal of Business Systems, Governance, and Ethics*, 1 (1), 13–23.

BEZPIECZEŃSTWO I HIGIENA PRACY (BHP) ORAZ ZAANGAŻOWANIE ORGANIZACYJNE. DANE Z BRANŻY BUDOWLANEJ NA SRI LANCE

Streszczenie

W artykule ukazano związek między praktykami zarządzania BHP a zaangażowaniem organizacyjnym pracowników w branży budowlanej na Sri Lance. Ankieta badawcza została przeprowadzona wśród robotników w branży budowlanej wybranych przy użyciu doboru wygodnego. Dane zebrano, zarządzając samodzielnie rozprowadzeniem anonimowego kwestionariusza wśród 250 robotników. Otrzymano 155 wypełnionych formularzy ankiety. Analizy danych przeprowadzono za pomocą narzędzia SPSS 23.0. Po zakończeniu wstępnych analiz badaną zależność ustalono za pomocą analizy korelacji i regresji. Wyniki wskazały na znaczący pozytywny związek między praktykami zarządzania BHP w branży a formami zaangażowania organizacyjnego-afektywnego, normatywnego i trwania.

Przełożyła Marta Młokosiewicz

Słowa kluczowe: branża budowlana, pracownicy, bezpieczeństwo i higiena pracy (BHP), praktyki zarządzania, zaangażowanie organizacyjne, Sri Lanka

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