

The Effect of Health, Safety and Environment (HSE) Assurance in Logistics Organization on The Retention of Employee(s) In Labuan Federal Territory: The Role of Pay Satisfaction as a Mediator

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Abstract

Safety culture has been described as a critical factor that setting up the importance of safety within an organization. The prevention of work-related accidents is an important measure taken by any company to assure the well-being of their employees and maintaining good working environment. Therefore, health, safety, and (work) environment (HSE) security is a relevant issue to be discussed in terms of employee retention. The objective of this study is to determine the effect of HSE security towards employee retention, with pay satisfaction will be the mediator. This study was adopting a survey research design and a sample of 200 employees of Asian Supply Base Sdn. Bhd. participated as respondents. The collection of data was analysed using Smart-PLS. The results showed that HSE security is positively affecting employee retention, and pay satisfaction have mediating effect on the relationship between HSE security and employee retention.

Keywords: Health, safety, and (work) environment (HSE) security, employee retention, pay satisfaction.

1. Introduction

Health, safety, and environment (HSE) security (hereby will be called as HSE security) is not a new topic to be discussed when it comes about employee retention. Regardless of what type of industry it applied, HSE security is an important matter to be look upon by any organization for the sake of the employees' wellbeing. Safety culture has been described as a critical factor that setting up the importance of safety within an organization. The prevention of work-related accidents is an important measure taken by any company to assure the well-being of their employees and maintaining good working environment. According to Burton (2010), there are several areas in consideration of sustaining good working environment, which include health and safety concerns in the physical environmental conditions, well-being concerns in the psychosocial work environment including organization of work and workplace

culture, personal health resources within the workplace, and ways of participating within the community to bring about well-being the workforce including their families and other members of the community. To ensure a healthy workplace, both employees and management have to work together to make the process into the practice, securing the betterment in health, safety, and environment in the organization. Therefore, health, safety, and (work) environment (HSE) security is a relevant issue to be discussed in terms of employee retention.

In accordance with logistics industry, safety and health management is one of the crucial human resource practices considering market globalization and competitiveness of the industry has been evolving (Zuraimi, Mohd. Rafi, & Mohamed Dahlan, 2013). As the backbone of economic development, logistics industry in Malaysia has been booming in recent years, which directly affecting the operation of the organizations involved. As in Labuan F.T., Asian Supply Base (ASB) Sdn. Bhd is one of the most prominent supply chain companies in the state as well as in Malaysia. With approximately 5,000 employees working there, it is a huge number of workers to be put into attention for their well-being. The rapid progression of the industry essentially demands the organization to sustain their workforce. The company need to deal with the idea of strengthening the plans of HSE security to make sure that the welfare of employees is being taken care of. Besides that, it is undeniable fact that materialism can motivate people (Cumming, 2000), hence, the importance of pay satisfaction has to look upon. While accommodating with risky working environment and operational, the employees may expect that they will get paid sufficiently.

While reviewing for past literature, it is discovered that HSE security and employee retention were the common subjects to be studied but rarely being discussed on the effect towards each other. Unfortunately, it is not the same case for pay satisfaction as mediator for the mentioned variables. There was also lack of study to be done on logistics employees, especially in Labuan F.T. Therefore, this objective of this study is to examine the effect of HSE security on employee retention through the lens of employees who are working in logistics industry at Labuan F.T., Malaysia while pay satisfaction plays the role as mediator.

2. Literature Review

2.1 HSE Security on Employee Retention

Past studies about health, safety, and environment (HSE) security especially on relation to employee retention/turnover came with or related to many terms. It includes safety culture (e.g., Mobaraki, Mirzaei, & Ansari, 2017; Ahmed & Waqas, 2017), healthy workplace (e.g., Burton, 2010), and so on. World Health Organization (WHO) defined a healthy workplace as "...one in which workers and managers collaborate to use a continual improvement process to protect and promote the health, safety, and well-being of workers and the sustainability of the workplace by considering the following, based on identified needs (i) health and safety concerns in the physical work environment; (ii) health, safety and well-being concerns in the psychosocial work environment including organization of work and workplace culture; (iii) personal health resources in the workplace; and (iv) ways of participating in the community to improve the health of workers, their families and other members of the community." HSE also refers to the process or activities including planning, implementation, control, and optimization; that are carried out by organizations to ensure the health, safety, security, and environmental protection at the workplace (oiltanking.com, April 2019).

Maryjoan U and Tom (2016) tried to examine the impacts of industrial safety and health on employees' job performance in selected companies. The study mainly discussed on the industrial safety or health strategies and productivity, along with the relationships among employees, customers, and management and how it is affecting the turnover intention. They

found that there is strategies and employee job performance and suggested that the employers should ensure substantial industrial safety/health strategies management in order to protect the employees at workplace, in turn, reducing employee turnover and encouraging their performance. Ahmed and Waqas (2017) conducted a study on the effect occupational injuries and turnover intention among workers in Pakistan with safety culture as the mediator. The results showed that occupational injuries indeed effecting employees' turnover intention and the safety culture didn't reduce the extent of turnover due to non-prevalence of safety environment in Pakistan. They also highlighted that poverty and unemployment decreased the chances of turnover intention. The purpose of a study from Mobaraki et al. (2017) was measure to the condition of HSE management and safety climate in construction sites in Iran. They found that HSE management and safety climate in sites were acceptable relatively, that the perception of safety had no relationship with demographic factors such as age, work experience, and education, while the establishment of a safety climate was depending on the people of much higher position.

2.2 Pay Satisfaction as a Mediator

Studies about the mediating effect of pay satisfaction are atypical, as far as literature wise, including on the relationship between HSE security and employee retention. Yet, the association between pay satisfaction and employee retention has been widely discussed. There are many terms can be described as pay, for instance, salary, reward, compensation, and wages. It can be defined as incomes in the form of money or goods directly or indirectly received by employees in return for services provided to the company (Priyono & Marnis, 2008; Dessler, 2009; Hasibuan, 2009; Aulia Rahman, 2019). According to Heneman and Schwab (1985), pay satisfaction is a multidimensional construct consisted of satisfaction with pay level, benefits, raises, structure, and administration. In terms of pay satisfaction and employee retention/turnover intention, several studies can be pointed out to discuss this matter. In Singh and Loncar (2010)'s study, they found that pay satisfaction affecting turnover intention of 200 registered nurses (RNs) in a unionized hospital. Terera and Ngirande (2014) had studied the effect of rewards on job satisfaction and employee retention among nurses in South Africa's public health sector and found that rewards indeed affecting employee retention. Asekun (2016) was tried to investigate the relationship between pay satisfaction, job satisfaction, and employee turnover in business companies in Lagos, Nigeria. The highlight of the results was a positive relationship between pay satisfaction and employee turnover was found, and the researcher suggested that pay satisfaction and job satisfaction could predicted the turnover intention of the employees.

2.3 Hypothesis

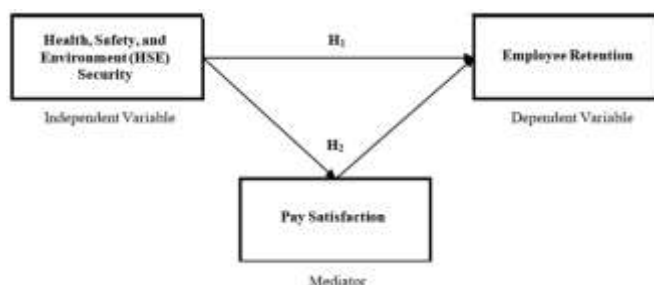


Figure 1: Conceptual Framework

Based on Figure 1 above, the hypotheses of this study are as followed:

- Hypothesis 1: HSE security has a positive and significantly influence on employee retention.
- Hypothesis 2: Pay satisfaction mediates the relation between HSE security and employee retention.

3. Methodology

The population of this study is the employees of logistics industry, specifically at Asian Supply Base Sdn. Bhd., where the premise is established in the state of Federal Territory of Labuan (Labuan F.T.). The state is located at the off-coast Sabah state right at the eastern of Malaysia. Logistics industry in Labuan is one of the main contributors for the state's economy. The company itself has approximately 5,000 employees. Therefore, this study aimed a sample of 200 employees as respondents. To distribute the questionnaire, an online platform was utilized by sharing the link to the respondents through phone text and emails. The collection of data was conducted throughout the month of November 2020. The questionnaire is consisting in four-parts sections (Section A to Section D). Section A was for respondents' socio-demographic profile including age, gender, marital status, education level, and so on. Section B, C and D contained item questions for all three variables: healthy, safety, and environment (HSE) security as independent variable, employee retention as dependent variable, and pay satisfaction as the mediator. Respondents were considered to be given their informed consent by willingly to participate and answering the questionnaire. The questionnaire was shared through an online survey platform of Google Forms and conducted throughout the month of November 2020. There were 200 respondents managed to be obtained as respondents at the end of data collection process.

The questionnaire was constructed based on past studies that used the same instruments. The NOSACQ-50 (Nordic Occupational Safety Climate Questionnaire) was used to represent the measure of HSE security variable of this study. The employee retention questionnaire contained 11 items questions and was taken from Kyndt, Dochy, Michielsen, and Moeyaert (2009) on the factors that motivated the employees about their jobs. As for mediator, the modified version of Pay Satisfaction Questionnaire (PSQ) was developed by Heneman and Schwab (1985) to evaluate pay satisfaction in five dimensions (level, benefits, raises, structure, and administration) and used for in this study. Using a rating scale for 5-point Likert, the scoring scale for HSE security and employee retention was ranged from score of 1 (Strongly Disagree) to 5 (Strongly Agree); whereas the scoring scale for pay satisfaction was ranged from score of 1 (Very Dissatisfied) and 5 (Very Satisfied). The analysis of the data was performed using Smart-PLS. Partial Least Squares (PLS) was adapted in the analysis to estimate the models.

4. Results

4.1 Demographic Profile

Table 1 below shown the demographic profile of 200 respondents who were participated in this study. In terms of age, majority of the respondents were ranged between 18 to 29 years old (39.5%) and followed closely were those who aged between 30 to 39 years old (37.0%). Male employees were dominated the number of respondents with 134 (67.0%) which more than twice than the female respondents (33.0%). The employees who worked in non-executive or technical position were recorded as the greatest number of respondents with 68 employees (34.0%), followed by executives (18.5%), supervisors (17.5%), officers (13.5%), assistant managers or managers (10.5%), and those who worked as Senior Manager/Head of Department/Top Management (6.0%).

Table 1: Demographic Profile (N = 200)

Variables	Descriptions	Frequencies	Percentages (%)
Age	18-29	79	39.5
	30-39	74	37.0
	40-49	35	17.5
	50-59	10	5.0
	60 and above	2	1.0
Gender	Male	134	67.0
	Female	66	33.0
Education Level	SPM/STPM	32	16.0
	Certificate	18	9.0
	Diploma	68	34.0
	Bachelor Degree	71	35.5
	Master Degree	11	5.5
Job Position	Non-Executive or Technical	68	34.0
	Supervisor	35	17.5
	Officer	27	13.5
	Executive	37	18.5
	Assistant Manager or Manager	21	10.5
	Senior Manager or Head of Department or Top Management	12	6.0
Working Experience	3 years and below	54	27.0
	6 years and below	46	23.0
	10 years and below	34	17.0
	More than 10 years	66	33.0
Total Monthly Salary	Below RM1,500	26	13.0
	RM1,501-RM2,500	36	18.0
	RM2,501-RM3,500	54	27.0
	RM3,501-RM4,500	41	20.5
	RM4,501 and above	43	21.5

4.2 Assessment of Measurement Model

The measurement model was analysed by assessing the internal consistency reliability, convergent validity (CV), and discriminant validity (DV) (Chin, 1998; Hair, Hult, Ringle, & Sarstedt, 2017). It is important to note that original questionnaire for HSE Security contained 51 item questions, in which item 1 to 50 were dichotomous items, whereas item 51 was an open-ended question and was eliminated from the analysis due to its methodologically distinction with the rest of the items. Next, after PLS algorithm was calculated, there was no item eliminated because the absolute value of all items' outer loadings was high (> 0.6). Meanwhile, the result of analysis also shown that the CR scores of all constructs (HSE security = 0.988; employee retention = 0.958; pay satisfaction = 0.992) exceeded the recommended criterion of 0.7, which displaying the high internal consistency of the scales used in this study. To examine the convergent validity of the constructs, the factor loadings and average variance extracted (AVE) were assessed, and the analysis shown that the factor loading of each item was higher than the acceptable value of 0.7 or 0.708 (Hair, Ringle, & Sarstedt, 2011). The overall constructs (HSE security = 0.622; employee retention = 0.673; pay satisfaction = 0.869) were acceptable as well, where all of them were managed to explain more than 50% variance (AVE > 0.50) (Hair et al., 2017) and exceeded the recommended threshold of 0.5 (Fornell & Larcker, 1981) which indicated that there was an adequate convergent validity. Table 2 below presented the factor loadings, CR, and AVE scores of each construct.

Table 2: Factor Loadings, Composite Reliability (CR), and Average Variance Extracted (AVE)

Constructs	Items	Factor Loadings	CR	AVE	Convergent Validity
HSE Security	hse_01	0.817	0.988	0.622	Yes
	hse_02	0.775			
	hse_03	0.808			
	hse_04	0.769			
	hse_05	0.738			
	hse_06	0.817			
	hse_07	0.776			
	hse_08	0.751			
	hse_09	0.734			
	hse_10	0.852			
	hse_11	0.842			
	hse_12	0.846			
	hse_13	0.741			
	hse_14	0.802			
	hse_15	0.728			
	hse_16	0.859			
	hse_17	0.828			
	hse_18	0.719			
	hse_19	0.834			
	hse_20	0.800			
	hse_21	0.731			
	hse_22	0.841			
	hse_23	0.792			
	hse_24	0.808			
	hse_25	0.775			
	hse_26	0.757			
	hse_27	0.804			
	hse_28	0.771			
	hse_29	0.713			
	hse_30	0.769			
	hse_31	0.756			
	hse_32	0.745			
	hse_33	0.795			
	hse_34	0.746			
	hse_35	0.814			
	hse_36	0.807			
	hse_37	0.835			
	hse_38	0.870			
	hse_39	0.803			
	hse_40	0.772			
	hse_41	0.774			
	hse_42	0.815			
	hse_43	0.824			
	hse_44	0.771			
	hse_45	0.768			
	hse_46	0.811			
	hse_47	0.764			
	hse_48	0.780			
	hse_49	0.747			
	hse_50	0.803			
Employee Retention	retent_01	0.749	0.958	0.673	Yes
	retent_02	0.845			

Constructs	Items	Factor Loadings	CR	AVE	Convergent Validity
	retent_03	0.856			
	retent_04	0.860			
	retent_05	0.868			
	retent_06	0.844			
	retent_07	0.704			
	retent_08	0.804			
	retent_09	0.864			
	retent_10	0.879			
	retent_11	0.729			
Pay Satisfaction	paysat_01	0.948	0.992	0.869	Yes
	paysat_02	0.921			
	paysat_03	0.939			
	paysat_04	0.909			
	paysat_05	0.942			
	paysat_06	0.927			
	paysat_07	0.913			
	paysat_08	0.954			
	paysat_09	0.917			

The Heterotrait-Monotrait ratio of correlations (HTMT) approach was recommended by Henseler, Ringle, and Sarstedt (2015) to determine the discriminant validity (DV) of the constructs. The acceptable DV can be achieved if the HTMT value is lesser than the HTMT_{.85} value of 0.85 (Clark & Watson, 1995; Kline, 2011; Memon, Salleh, & Baharom, 2017), or the HTMT_{.90} value of 0.90 (Gold, Malhotra, & Segars, 2001; Teo, Srivastava, & Jiang, 2008; Memon et al., 2017). Table 3 shown that all values had passed HTMT_{.85} and/or HTMT_{.90} measures, indicating that each construct in the model measures a prominent subject and substantially apprehended the phenomena which was not being transpired by other constructs in the model (Memon et al., 2017).

Table 3: The HTMT Criterion

	Employee Retention	HSE Security	Pay Satisfaction
Employee Retention			
HSE Security	0.890		
Pay Satisfaction	0.745	0.678	

Criteria: Discriminant validity is established at HTMT_{.90}.

4.3 Assessment of Structural Model

To evaluate the hypotheses, the structural model was assessed, and the analysis was presented in Table 4. The bootstrapping process involved 500 interactions was performed to generate t-values and standard errors to confirm the statistical significance (Hair et al., 2011; Hair et al., 2014; Memon, et al., 2017). The bootstrapping analysis of this study shown that all the indirect effects, $\beta = 0.685$ and $\beta = 0.264$, were significant with t-values of 4.810 and 1.973, with the path coefficients for both hypotheses were statistically significant ($p < 0.05$). The results for hypothesis 1 ($\beta = 0.267$, $t = 4.810$, $p < 0.05$) indicated that there was a positive effect of HSE security on employee retention. The results for hypothesis 2 which involved pay satisfaction as the mediator between HSE security and employee retention, shown that the indirect effect 95% Boot CI Bias Corrected: [LL = 0.055, UL = 0.540], which indicated that the relationship between HSE security and employee retention can be mediated by pay satisfaction.

Table 4: Hypothesis Testing (Path coefficient)

Hypothesis	Path	Path coefficient (β)	t-value	P values	Result
H1	HSE Security → Employee Retention	0.143	4.810	0.000	Accepted
H2	HSE Security → Pay Satisfaction → Employee Retention	0.134	1.973	0.000	Accepted

5. Conclusions

The purpose of this study was to determine the effect of HSE security towards employee retention, with pay satisfaction will be the mediator. The results shown that both hypotheses were accepted. Despite experiencing difficulty in literature reviews, especially the discrepancy to provide supporting statements of the findings, this study believed to be able to contribute in pioneering more studies or similar ones to be conducted in logistics industry at Labuan F.T. as part of international logistics hubs, or any other industries, primarily in the context of working people. Few implications of this study might be the influence of its findings in decision making for the retention of employees of the company involved in this study, as well as improving the perspective of managerial support in ensuring the healthier, safer, and positive working environment in the industry.

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