Occupational Health and Safety Practice and Job Performance: Role of Job Satisfaction

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Abstract

This study aims at examining the role of Job Satisfaction (JS) in mediating relationship between Occupational Health and Safety Practice (OHSP) and Job Performance (JP). Data were gathered from a sample of 250 machine operators employed in Sri Lankan manufacturing firms using a self-administered questionnaire. The results revealed significant influences among OHSP, JS and JP. JS fully mediated the relationship between OHSP and JP. Results were derived from the cross sectional method and generalizability of the findings to other categories of employees may get limited as the sample consisted of only machine operators. This study adds empirical evidence in Sri Lankan context to confirm the hypothesis: JS mediates significantly the relationship between OHSP and JP.

Keywords: Job Performance, Job Satisfaction, Manufacturing Firms, Occupational Health and Safety Practice

Introduction

Sri Lankan manufacturing firms significantly contribute to growth of the economy. Employees play a strategic role in today's manufacturing firms'context to strive the organization towards the achievement of its as well as government goals and objectives. Without human resources, manufacturing firms cannot attain their overall goals. Therefore, human resource management functions play a key role in any manufacturing firm to secure and enhance competencies, commitment, cooperation, and engagement of its human resources. Among the human resource management functions OHSP is a critical one as it has a direct influence on machine operators' JP, especially in manufacturing firms. It directly affects the performance of the firm and it gives guaranty for health and safety of its employees who engage in work with machinery. OHSP enhances the employees' JS and increases their job performance. Robin and Walker (2000) explicated that OHSP will provide a sense of security as well as JS to employees and then improving JP. Most of the employees left the firm due to dissatisfaction with the job and reduced their performance due to poor OHSP (Kularathna and Perera, 2016).

However, a search of the existing literature discloses a deficiency in the empirical knowledge with regard to the mediating role of JS on the relationship between OHSP and JP in the Sri Lankan context. Therefore, the problem addressed in this study is: **does job satisfaction mediate the relationship between occupational health and safety practice and job performance in the Sri Lankan manufacturing firms?**

The purpose of this study was four fold: to study the influence of OHSP on JP; to examine the influence of OHSP on JS; to inspect the influence between JS and JP; and to examine the mediating role of JS between OHSP and JP. This study will supplement to the body of knowledge of OHSP by empirically explaining the link between OHSP and JP through the mediation mechanism of JS in the manufacturing firms of Sri Lanka.

Literature Review

Occupational Health and Safety Practice

According to World Health Organization (1999) health denotes the state of complete physical, mental and social wellbeing and not purely the absence of diseases or infirmity; and three aspects such as employee's physical health, mental health and social well-being are considered by employers. Mathis and Jackson (2004) defined the term *safety* as protecting the physical well-being of people whereas Glossary of Occupational Health and Safety Terms (2011) defined the term *occupational safety* as the maintenance of a work atmosphere that is relatively liberated from definite or possible hazards that can wound employees. Conferring to Gallagher (2001) OHSP demarcated "…a grouping of the planning and review, the management organizational engagements, the review engagements, and the particular program features that work together in an incorporated way to improve health and safety performance." It consists of safety procedures and risk management, safety and health rules, first aid support and trainings, occupational hazards prevention and organizational safety supports. Lingard and Holmes (2001) identified three steps in safety procedure and risk management as: defining the hazards in the workplace; assessing the risk of the hazard and controlling the risk. According to Opatha (2012), OHSP means all the activities involved in protecting and promoting physical and mental health of the employees in order to enable them to perform jobs efficiently and effectively. This paper pays more attention to Gallagher's (2001) OHSP definition.

Job Performance

JP can be defined as an individual contribution to reach the overall performance of an organization to enhance the final targets. Further, it can be upgraded through proper job planning, inspecting and assessing of individual involvement with the organizational goals. According to Arulrajah, Opatha, and Nawaratne (2016) JP is all the behaviour at work that can make some contribution to organizational goals. Additionally, Fonkeng (2018) termed JP as the aggregated financial or non-financial added value by the individuals both directly and indirectly to the fulfilment of the targeted goals of the organization. Azmi, Shahid, and Alwi, (2016) defined JP as an action in which an employee is able to realise the allocated task fruitfully, subject to the ordinary restrictions of the reasonable utilization of available resources. This paper reflects Arulrajah, Opatha, and Nawaratne's (2016) description as the working definition of JP.

Job Satisfaction

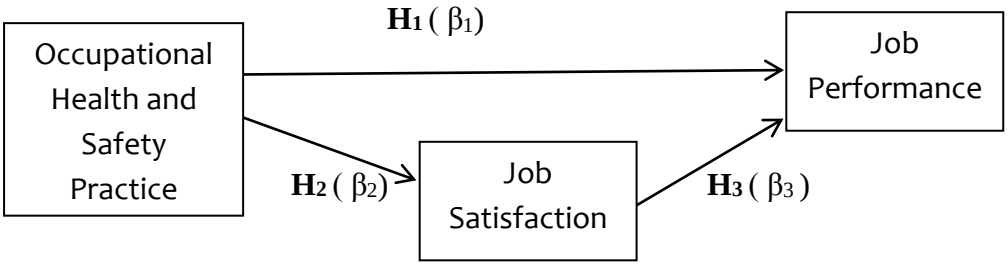
Arnold and Feldman (1986) defined JS as all positive affect (or feelings) that employees have towards their jobs. According to Robbins (1996), JS is the difference between the amount of rewards employees receive and the amount they believe they should receive. Armstrong (2006) stated that JS implies positive and favorable attitudes towards the job, and Robbins and Judge (2007) defined JS as a positive feeling about one's job resulting from an evaluation of its characteristics. Further, Bakotic, and Babi (2013) stated that JS focuses on the central feeling and does not share it with a single mechanism, and other factors that

affect overall JS are considered. This paper considered Robbins and Judge's (2007) definition as the working definition of JS.

Research Framework

There are three variables which are abstract considered for the research framework. In this study JP was as the Dependent Variable (DV), OHSP was considered as the Independent Variable (IV), and JS as the Mediator Variable (MV) (refer to Figure 1).

Figure 1: Research Framework



Occupational Health and Safety Practice and Job Performance

Yusuf et al (2012) explained that the production staff provides security and comfort to employees at work that leads to improve their JP. The study of Robin and Walker (2000) revealed that OHSP will not only provide safety or security to employees but also it leads to reduce accidents and it will increase JP. Therefore first hypothesis was formulated as:

H_1: Occupational health and safety practice positively influences job performance of machine operators of Sri Lankan manufacturing firms.

Occupational Health and Safety Practice and Job Satisfaction

Omusulah (2013) established that OHSP influences JS and when an organization has proper safety policies and procedures then they will positively impact on JS and also he found that there is a positive correlation between OHSP and JS. OHSP included wellness programs, safety training and education, and usage of personal protective equipment. In addition, prior empirical studies recommended that OSHP influences JS (Neal and Griffin, 2006; Mihiravi and Perera, 2016; Kularathna and Perera, 2016; Yusuf et al., 2012). A study done by Tobi et al (2013) it was substantiated that OHSP in the organization will strongly influence on JS of the employees. In view of the preceding discussions, the second hypothesis was formulated as follows:

H_2: Occupational health and safety practice positively influences job satisfaction of machine operators of Sri Lankan manufacturing firms.

Job Satisfaction and Job Performance

Perera, et al (2014) explored the significant positive effect of JS on JP having conducted a study on 322 factory employees in the large Sri Lankan apparel sector. Further, positive influence of JS on JP was found by several scholars in various job categories (Kahya, 2008; Nabirye, et al, 2011; Perera 2014). Based on the above empirical findings third hypothesis for this study was developed as follows:

H_3: Job satisfaction positively influences job performance of machine operators of Sri Lankan manufacturing firms.

Job satisfaction mediates the relationship between occupational health and safety practices and job performance

Ahmad, Sattar, and Nawaz (2017) and Gamal, Taneo, and Halim (2018) concluded that JS mediates the relationship between OHSP and JP. OHSP gives an assurance of maintaining and improving employee health, and protecting employees' physical health from the danger of accidents. This makes employees satisfied with their jobs and then this enhanced job satisfaction will result in improving their job performance. Hence, on the basis of the above empirical finding and logical argument the fourth hypothesis was developed as follows:

H_4: Job satisfaction mediates the relationship between occupational health and safety practice and job performance of machine operators of Sri Lankan manufacturing firms.

Methodology

The purpose of the study, insight of the research framework and hypotheses were based on positivism and deductive methods. The researcher selected 250 machine operators of Sri Lankan manufacturing firms to collect the data through a quantitative cross sectional survey method. The selection of sample was carried out on a convenience sampling method. The questionnaire was supplemented by a letter from the human resource manager of the manufacturing firm stating the purpose of the study, the assurance of confidentiality, and legitimacy of the researcher. Questionnaires were distributed by hand to the human resource manager in the respective manufacturing firm and collected on predetermined dates. The data were scrutinized by applying statistical data analysis package, SPSS (version 23.0) regression, univariate and bivariate methods were used for the purpose of data analysis of this study. Further, analysis for mediation effect was carried out using 4 step process recommended by Baron and Kenny (1986) and there is a backing for mediation if (a) IV relates to DV, (b) IV relates to MV(c), MV relates to DV when controlling for IV, and (d) the link of the IV with DV is reduced significantly (partial mediation) or remains no longer significant (full mediation) when controlled for MV. Then, the significance of the mediation was evaluated bySobel's (1982) test for indirect effects.

Measures
The questionnaire was divided into four segments as follows:

Demographic Factors: This section was considered to solicit evidence of the respondents relating to gender, age, educational level and experience in manufacturing firms.

Occupational Health and Safety Practice
OHSP scale was measured with Christopher et al (2012) and Glendon and Litherland (2001) twenty seven-item scale. The instrument focuses on the five dimensions of OCHSP, i.e. safety procedures and risk management, safety and health rules, first aid support and trainings, occupational hazards prevention and organizational safety supports on a 5-point Likert-type scale that ranged from 1"strongly disagree" to 5"strongly agree." The sample item is "Safety rules are always practical in my firm."

Job Performance
JP was measured by using the instrument developed by Koopmans (2014) which had a fifteen- item scale. The instrument covered the three dimensions of JP such as task performance, contextual performance and counterproductive work behaviour on a 5-point Likert-type scale ranging from "strongly disagree" to 5"strongly agree. A sample item is "I managed to plan my work so that it was done on time."

Job Satisfaction
JS was measured by using the instrument developed by Thomas and Tymon (1994) which was a four item scale. Data were collected concerning the respondents' satisfaction with pay, satisfied with promotion opportunities, satisfied relationships with other employees, and satisfied with job assignments on a 5-point Likert-type scale that varied from 1"strongly disagree" to 5"strongly agree." A sample item is "I am satisfied with my pay."

Results

The pilot study accompanied with 30 respondents and indicated that all statements stated in the questionnaire were clearly known without suffering them. Thus, without any changes in statements the questionnaire was distributed to the selected sample. The researcher received only 178 completed questionnaires for data analysis purpose, reply rate was 71.2%. Demographic findings showed that 98 participants were male machine operators (55%) while 80 (45%) were female. With regard to age, 13% of machine operators belong to less than 35 years of working in the firm, 57% were related to 35-45 years and 30% belong to more than 45 years. 75% machine operators passed ordinary level exam; 14% passed advanced level exam and 11% had primary level education. Considering the experience, 52% of machine operators have 5-10 years, 14% have more than 10 years and 34% have less than 5 years of experience. Cronbach's alpha was considered for testing the reliability analyses. Means, standard deviations, and Pearson correlations among the study variables are illustrated in Table 1.

Table 1: Mean, Standard Deviations and Pearson Correlations among Study Variables

Variable	M	SD	OHSP	JS	JP
OHSP	3.71	0.67	1		
JS	3.75	056	0.52**	1	
JP	3.79	0.69	0.47**	0.73**	1

**Correlation significant at 0.01 level

The correlation values of Table 1 display that there were significant positive relationships between OHSP and JP (r=.0.47, p<0.01), between OHSP and JS (r=.0.52, p<0.01), and between JS and JP (r=.0.73, p<0. 01). Therefore, no multicollinearity occurred in the study variables due to all correlation values of variables being less than 0.9 (Field, 2006).

Hypotheses of the study (H_1, H_2 and H_3) were supported through the regression analysis (refer to Table 2). OHSP positively and significantly influences JP (β_1=0.45, p<0.01); OHSP positively and significantly influences JS (β_2=0.52,p<0.01); and JS positively and significantly influences JP (β_3=0.74,p<0.01). H_4 was tested through Baron and Kenny's (1986) method and the results are presented in Table 2.

Table 2: Hypotheses Testing Results

DV	Sobel (1982) Test statistics	IV → MV (OHSP)(JS)	MV→DV (JS) (JP)	IV→DV (OHSP)(JP)	IV→DV MV controlled (OHSP)(JP) (JS)
JP	7.03*	β_2=0.52*	β_3=0.74*	β_1=0.45* $R^{2=}$0.29	β=0.03(n.s.) $R^{2=}$0.47

n.s. =non-significant,* p<0.01.

Conditions relating to testing of mediation were satisfied. JS was established to be a significant predictor of JP (β_3=0.74, p<0.05) and the influence of OCHSP on JP became significant (β1=0.45, p<0.05).47% of the variance is explained by the model once the MV (JS) was included, which is a fairly good model compared to the OCHSP and JP alone. As a result, it can be concluded that JS fully mediated the relationship between OCHSP and JP. Thus H_4 was accepted.

Discussion and Conclusion

This study is an exertion to discourse the scarce suggestions in the existing literature regarding OHSP, JP and JS role in the link of OHSP and JP as they are three main variables in Sri Lankan manufacturing firms concerning to machine operators. This study found empirical evidence that OHSP and JS positively influenced JP in the Sri Lankan context (H1 and H3). The findings are steady with prior studies (Robin and Walker 2000; Perera, et al., 2014) and this means that when machine operators are satisfied with their jobs they tend to increase

their job performance levels. Further, the results supported the positive relationship between OHSP and JS (H2) and aligned with the earlier findings (Mihiravi and Perera, 2016; Kularathna and Perera, 2016; Yusuf et.al, 2012). A more important one of the findings of this study was that JS played a major role in the relationship between OHSP and JP as a mediator in the Sri Lankan context (H4) and this finding was in congruence with the former studies (Ahmad, Sattar, and Nawaz, 2017; Gamal, Taneo, and Halim, 2018). Thus, this study generated empirically substantiated relationships among OHSP, JS and JP in the Sri Lankan context.

Findings imply that the degree of OHSP needs to be manipulated (increased) so as to make significant positive effects on improving JS and JP. It is the responsibility of the top management of the manufacturing firms to consider improving OHSP and JS related factors to enhance JP of the machine operators to achieve the boarder goals continuously. This study provides an implication for human resource managers to be more concerned with increasing the intensity of OHSP in their manufacturing firms to make operative employees more satisfied and then enhance their JP.

The researcher mainly focused on the Sri Lankan machine operators, and therefore, the attempt to generalize the findings of the study to other categories of employees may get limited. Further, only cross sectional and self-administered questionnaire methods were considered for data gathering purpose. Hence, future studies which apply longitudinal time horizon and case observations are suggested to confirm the findings in terms of method triangulation. Future studies which will use different types of employees including managers and professionals are suggested to increase the generalizability of the findings of this study.

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