

Contribution of Occupational Health and Safety Practices on Non-managerial Employee Productivity in the Apparel Industry of Sri Lanka

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Introduction

The Apparel Industry of Sri Lanka is an industry with huge opportunities for export, particularly those achievable by reducing unexpected wastage and increasing employee productivity. Employees are the most valuable assets which can drive the profits of an organization: this is especially true of the apparel industry. Securing the employees of an organisation is not only a responsibility of the employers but also an investment in the organisation as they are the driving force of a smoothly running organisation.

Occupational health and safety (H&S) is the protection and maintenance of the highest level of physical, mental and social well-being of workers in all occupations. Therefore employers are conscious of H&S management which can harm the entire organization if employees contract any disease or fall victim to any accident. This has risen due to the staggering number of work related accidents resulting in death, fatal injury and illness (Armstrong, 2005).

Review of Literature

Occupational (H&S) are two terms that are closely related but which have two different meanings. However they are used together. According to the International Labour Organisation and the World Health Organisation (1950), occupational H&S is the protection and maintenance of the highest levels of physical, mental and social wellbeing among workers engaged in all occupations.

Indicators of H&S include: Communication or awareness of H&S practices as measured in terms of the satisfaction of an employee in terms of communicating messages about H&S; Structure or designing safety equipment and protective devices and clothing; Maintenance, or maintaining records and statistics in order to identify problem areas and unsatisfactory trends, as well as carrying out regular risk assessment audits, inspections and checks and taking action to eliminate risks Working Conditions, such as layout and location, ventilation, space for movement,

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temperature, lighting, arrangement of tools and equipment, and other aspects which can affect employee productivity; Training to instruct employees on proper safety procedures, a continuous programme of education on working habits and methods of avoiding accidents; Employer Commitment, in identifying and implementing comprehensive, change, and consultative manner.

Employee Productivity – Dependent Variable, Productivity is an assessment of the efficiency of a worker, and the productivity of the organisation depends on the productivity of a single employee. Productivity is commonly defined as a ratio between output and input volume. According to Nawab & Shafi (2011), employee productivity is the major dynamic in shaping the success or downfall of any organization, which is why organizations continuously strive to enhance. Productivity is an overall measure of the ability to produce a good or service.

Statement of Problem

The identified common problem in the apparel industry is high labour turnover and absenteeism which lead to low employee productivity. Causes for the decrease in employee productivity are sought after, and the neglect of employee H&S has been discussed as a likely cause. As stated earlier hazardous and dangerous activities may be part and parcel of work in the apparel industry and proactive measures to prevent these could minimise and eliminate such situations. Therefore the study focuses on whether employee opinion towards the health and safety practices of an organisation has an impact on employee productivity and whether their satisfaction with H&S practices increase productivity. Therefore the research problem is as to why employees are not reaching the expected level of productivity and are instead giving rise to unprecedented levels of turnover and dissatisfaction.

Research Question

The research question addressed by this research is whether communication practices, structure, maintenance, working conditions, training practices, and employer commitment on health and safety practices has an impact on employee productivity.

Objectives of the Research

The general objective of this study is to identify methods to enhance non-managerial employee productivity through enhancing motivation and job satisfaction by addressing the significance of occupational H&S practices in the apparel industry of Sri Lanka.

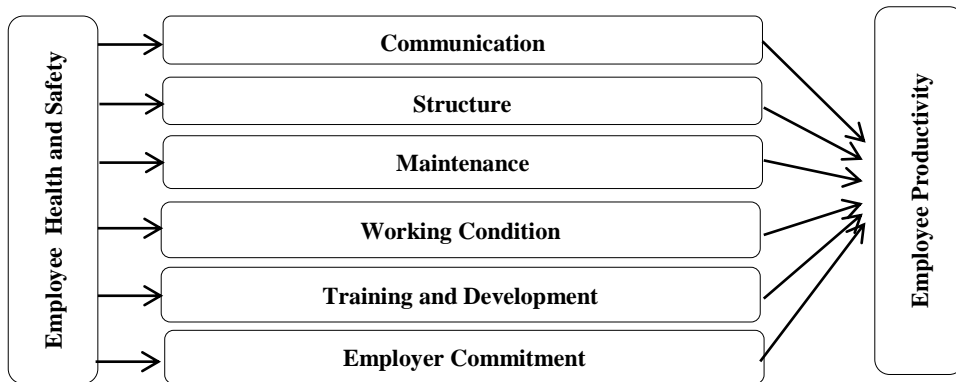
Methodology

Productivity among non-managerial employees is measured with the level of individual productivity while occupational H&S practices are measured by the opinions and levels of satisfaction among the employees towards practices. The unit of analysis is at an individual level. The study was conducted in Colombo District. The population of the study was employees in the apparel industry and the target population was all employees in the selected companies. Both primary and secondary data were used in this study where primary data were collected through questionnaires from a sample of 150 employees selected on the basis of stratified random sampling techniques where the departments were identified as strata, and secondary data was used to gain information towards the dependent variable, employee productivity, as measured with the productivity index which was generated by the organisation for each individual employee specifically. Further descriptive analysis, chi-square analysis, and logistic regression analysis were used to analyse data with SPSS software.

This is a correlational study. In this research six main hypotheses have been formulated for testing. This study is analytical in nature rather than exploratory or descriptive refer to the following main hypotheses;

- H0₁: There is no significant relationship between communication on employee health and safety practices and employee productivity.
- H0₂: There is no significant relationship between structure on employee health and safety practices and employee productivity.
- H0₃: There is no significant relationship between maintenance on employee health and safety practices and employee productivity.
- H0₄: There is no significant relationship between working conditions on employee health and safety practices and employee productivity.
- H0₅: There is no significant relationship between training on employee health and safety practices and employee productivity.
- H0₆: There is no significant relationship between employer commitment on employee health and safety practices and employee productivity.

Figure 1: Conceptual framework

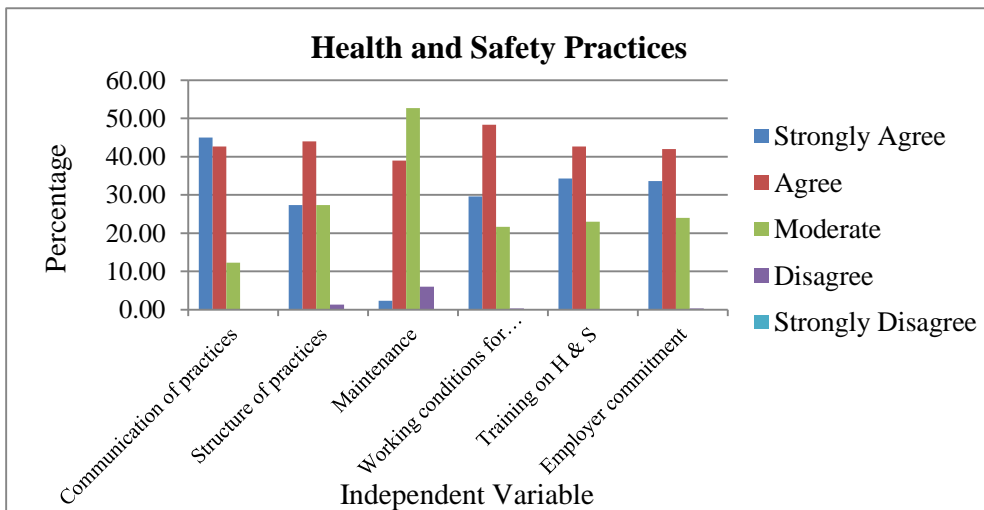


Source: Author developed, 2015

Data Analysis and Results

Descriptive analysis

Figure 2: Summary of responses towards health and safety practices



Source: Sample Survey data, 2015

Communication of practices, structure of practices, maintenance, working conditions, H&S training and employer commitment decide the practices of the organisation. 28.72 percent of the employee strongly agrees and 43.11 percent agree that H&S practices are effective and efficient; while 26.83 percent consider the H&S operations moderately effective, and 1.34 percent of the employees think it is not operating effectively. The following figure shows the combination of responses among employees regarding employee H&S practices.

Chi-square test for hypothesis testing

The chi-square test was done as these variables are categorical in order to identify the relationship between employee productivity and employee H&S with reference to communication, structure, maintenance, working conditions, training and development and employer commitment.

Table 01: Analysis of independent and dependent variables

Independent Variables	Dependent Variable	Employee Productivity Chi-square Sig
a. Communication		0.000
b. Structure		0.000
c. Maintenance		0.000
d. Working Conditions		0.000
e. Training and Development		0.000
f. Employer Commitment		0.000

Chi-square is significant at the 0.01 level

The significance of the chi-square test of the relationship between communication practices on H&S and employee productivity, H&S structure and employee productivity, H&S maintenance and employee productivity, working conditions and employee productivity, H&S training and employee productivity, and employer commitment for H & S and employee productivity is 0.000, which is less than the chosen significance level of 1 percent (0.01). This means increases in employee satisfaction with regards to communication, structure, maintenance, working conditions, training and development, and employer commitment for H&S significantly relate to increases in employee productivity.

The Cox and Snell's R square and Nagelkerke R square values which explains variation in the dependent variable shows that the model ranges from 27 percent to 43.2 percent respectively. The Hosmer and Lemeshow's test shows that the significant value is 0.755, which is greater than 0.5, and therefore permits the conclusion that the model is fit. The omnibus test of model coefficient shows the value of log-likelihood of model as significant at 0.01 level and the overall model better predicts whether an employee is productive or not, than it did with only the constant. This indicated the additional ability of the model to increase goodness of fit by 34.717 with include of predictor variables into the model.

The significant values of the variables in the equation have shown that there are two variables out of six which fit the model. Therefore the model for non-managerial employee productivity with reference to H&S practices is:

$$P(Y) = \left(\frac{1}{1 + e^{-(-9.714 + 1.240X_1 + 0.970 X_2)}} \right)$$

Y = Employee Productivity

X₁ = Working Conditions on H & S practices

X₂ = Employer Commitment on H & S practices

The analysis shows that the odds of an employee being productive are 1.736 times greater for females as opposed to males and that the main contributors for employee productivity are working conditions and employer commitment to H&S, as these two indicators are significant.

Conclusion

Determinants of employee productivity with reference to H&S practices of an organisation are working conditions and employer commitment to H&S practices. Similarly the logistic regression model identified that, working conditions and employer commitment to H&S practices, when duly implemented, increase the odds of an employee being productive by 3.454 times and 2.638 times respectively. Therefore the management of a company in the apparel industry would have to consider H&S practices of employees with regard to appropriate working conditions and a satisfactory level of employer commitment when stipulating strategies for the company.

Key words: Apparel Industry of Sri Lanka, Health and Safety practices, Employee Productivity, Non-managerial employees

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