



## Absenteeism and Production Performance: A Case in Apparel Industry

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### ABSTRACT

Being one of the highly labour intensive industries, apparel industry is highly affected by the employee behavior. Absenteeism is a common issue and important challenge to labour intensive industries due to its impact on production performance. Thus, this study attempts to determine how production performance of apparel industry is affected by absenteeism. Production performance is assessed by productivity, production drop, cost, efficiency, defect-rate, cut-ship ratio. This study uses secondary data from two work centers: sewing and finishing departments. Descriptive analysis shows that productivity, production drop and efficiency in sewing and finishing departments are highly affected by absenteeism. Also there is a moderate relationship between the overall cost and the absenteeism. The analysis further indicates that absenteeism is significantly high after the salary period.

**KEYWORDS:** Absenteeism, Apparel Industry, Production Performance

### INTRODUCTION

Export oriented apparel industry is one of the largest industries which is vital to the Sri Lankan economy. Since 1970s, the industry has grown to become the country's largest single source of export. Today, it is the primary foreign exchange earner in Sri Lanka contributing 40 percent of total exports and 52 percent of industrial product exports. Also, this sector offers a wide range of job opportunities for both skilled and unskilled workforce in Sri Lanka alleviating unemployment problem.

As a labour intensive industry, a common issue experienced by apparel industry is absenteeism (Panchanatham & Shammugasundaram, 2011). Frequently absent employees are found to be poor performers in apparel industry (Bycio, 1992), and mark adverse impact on organization's performance. Therefore understanding the impact of absenteeism on the production

performance is vital. Yet, studies in this issue are scant, particularly in the Sri Lankan apparel sector. Therefore, this study attempts to fill this gap by investigating the impact of absenteeism on production performance. Outcome of this study contributes to expand our understanding on effect of absenteeism on production performance, preciously on productivity, production drop, efficiency, cost, defect rate and cut-ship ratio. Further, practitioners will find the outcome important to clarify and understand the impact of absenteeism and find remedies.

### LITERATURE REVIEW

Absenteeism is generally understood in different ways by different persons. It is commonly understood as an employee or a group of employees remaining absent from work either continuously for a long period or repeatedly for short periods (Sandhyarani & Chandramouli, Unknown).

Absences can lead to many problems for the business. Some of these are as follows (Kautish and Kautish, 2009):

**Increased operating expenses:** When employees get absent for work, other employees will have to do extra work. Work overload can lead to delays in the delivery

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times of projects and management will have to pay for overtime to other employees. Therefore, operating costs of the company will be increased.

**The collapse of employee morale:** Work of the absent employee overloads another employee and this additional workload definitely affects in reducing the morale of these employees.

**Delays on the project:** If an employee gets absent to work in a regular basis, there will be inevitable delays on the projects and thus, this situation would increase operational costs and therefore decreases customer's satisfaction.

Absenteeism is an industrial malady affecting productivity, profits, investments, and the absentee workers themselves. Its consequences are alarming, as a day lost is a resource lost, deprived of being invested. As such, an increasing rate of absence adds considerably to the cost of production of an industry and saps industrial progress (Sandhyarani & Chandramouli, Unknown).

Absenteeism, low performance level, severance and distrustful behaviors are the behaviors that influence the productivity and efficiency of business enterprises (Orucu and Kaplan, 2001). In industry, absenteeism affects the morale and discipline of the whole group of workers. It affects the production schedule and leads to dislocation at various levels (Sandhyarani & Chandramouli, Unknown).

The cost of absenteeism to business usually expressed in terms of lost productivity is usually difficult to determine (Babangida, 2008). Absenteeism incurs several costs and they include the following.

- Decrease in productivity
- Financial cost
- Administrative cost
- Other costs

This research recognizes important production performance factors such as

productivity, production drop, efficiency defect rate, company cost and cut-ship ratio that are affected by absenteeism of employees.

## RESEARCH PROBLEM

The backbone of a garment factory is its cadre which includes machine operators, supervisors and staff members etc. They play a vital role in supplying the orders on time without any defects. However when employees get absent frequently, it will cause severe problems such as achieving production targets, and meeting order due dates. Also it may cause in producing defective products leading to customer dissatisfaction, loss of orders and disgrace to the organization. Finally, this results with increased company cost and reduced profit.

## METHODOLOGY

The main purpose of this study is to determine whether there is a significant impact by the employee absenteeism on the production performance in apparel sector.

In this study, sewing department and the finishing department would be the sample, whereas the apparel industry in Sri Lanka would be the population. And secondary data of the absenteeism productivity, production drop, efficiency, defect rate and cut -ship ratio were used in the analysis. The past daily data of eight months (April to December) were collected from the company's information systems in different departments.

At the initial stage, the production performance factors that may be affected by the employee absenteeism were identified through observation and expert discussion.

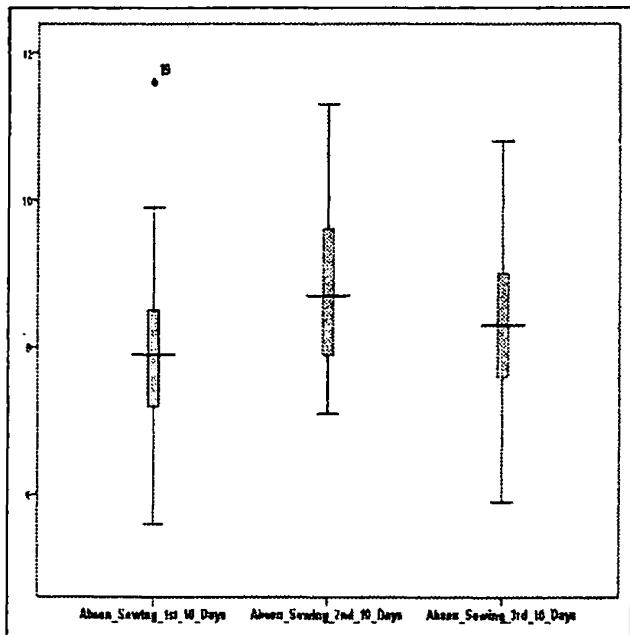
Factors were verified through literatures and identified as dependent variables.

Descriptive statistics were mainly used and, Pearson correlation, Independent Sample t-test were also used to identify relationships among factors.

## DATA ANALYSIS

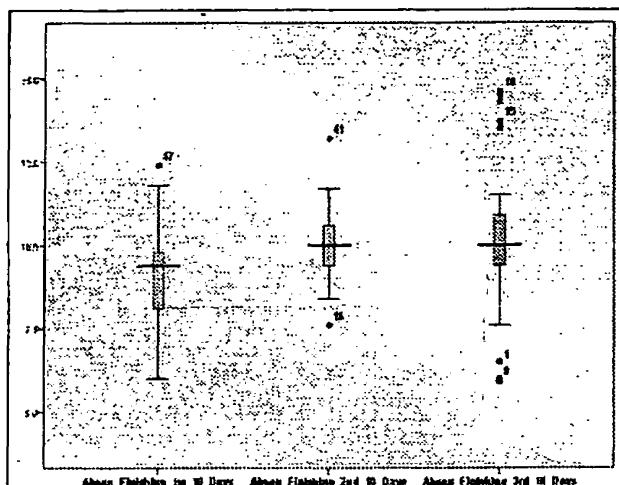
According to the analysis, more than 50% employees are working in the sewing department and approximately 12% work in the finishing department. The rest of 32% is from other departments. Finishing department counts higher absenteeism rates than the sewing department. The highest absenteeism rate of 10.3% of the finishing department has occurred in May, September and October where the highest rate in the sewing department has occurred in June and October. Both departments have lower absenteeism rates in April compared to other months.

In order to determine whether there is a trend in absenteeism during a particular month, several slots were made by dividing all the months into three sections of 10 days for each section.



**Figure 1: Distribution of Absenteeism of the Sewing Department during the Selected Time Durations**

As the Figure 1 exemplifies, the 2<sup>nd</sup> 10 days have the highest mean values compared to other two time periods. Employee salary dates are scheduled on 10<sup>th</sup> of each month. Therefore it is evident that employees in sewing department tend to be absent after receiving salaries.



**Figure 2: Distribution of Absenteeism of the Finishing Department during the Selected Time Durations**

According to the Figure 2, mean absenteeism levels of the finishing department increases during the 2<sup>nd</sup> 10 days period as well as during the 3<sup>rd</sup> 10 days period compared to 1<sup>st</sup> 10 days period. This reflects that more employees get absent for work after they receive their monthly salaries.

### Effect of Absenteeism on Production Factors

In order to determine to what extent each production factor is affected by the absenteeism of employees in two departments, the correlation analysis was conducted. The hypothesis 1 was postulated. Table 1 and 2 present the results of correlation analysis for sewing and finishing departments respectively.

*Hypothesis 1: There is no relationship between the absenteeism and the production factor ( $p_i$ )*

**Table 1: Correlation with Sewing Dept. Absenteeism**

	Pearson Coefficient	P-Value	Relationship
Efficiency	-.800	0.000	Strong (-)
Production_Drop	.938	0.000	Strong (+)
Productivity	-.962	0.000	Strong (-)
Cost	-.318	0.000	Moderate (-)
Defect_Rate	0.056	.416	Weak (+)
Cut-Ship Ratio	0.092	.181	Weak (+)

Based on Pearson Coefficient values, efficiency as well as the productivity in the

sewing department has a very strong negative relationship with the absenteeism. And the production drop has a very strong positive relationship with the absenteeism. Overall cost has a moderate negative relationship with the absenteeism level of the employees in the sewing department.

**Table 2: Correlation with Finishing Dept. Absenteeism**

	Pearson Coefficient	P-Value	Relationship
Efficiency	-9.18	0.000	Strong (-)
Production_Drop	.938	0.000	Strong (+)
Cost	-.314	0.000	Moderate (-)
Defect_Rate	-.036	.597	Weak (-)
Cut-Ship Ratio	-.131	.051	Weak (-)

Based on the Pearson Coefficients, the efficiency and the production drop has a strong negative relationship with the absenteeism while the production drop has a strong positive relationship with the absenteeism. Overall Cost has a moderate negative relationship with the absenteeism. But the defect rate as well as the cut-ship ratio has a weak negative relationship with the absenteeism of the finishing department.

Since both departments have similar effect from absenteeism on production performance indicators, Independent Sample t-test was conducted and hypothesis 2 was postulated. The results of Independent Sample t-test is presented in Table 3.

*Hypothesis 2: There is no significant difference in absenteeism, efficiency and production drop in two departments*

**Table 3: Results of Independent Sample T-Test**

		Mean	Sig(2-tailed)
Absenteeism	Sewing	.907	.000
	Finishing	1.498	
Efficiency	Sewing	48.573	.000
	Finishing	1.709	
Production Drop	Sewing	2.154	.012
	Finishing	2.614	

Absenteeism, efficiency and the production drop levels are different between sewing and finishing departments. Both absenteeism and production drop are comparatively higher in finishing department. However the sewing department marks higher efficiency than the finishing department.

## RESULTS AND DISCUSSION

This research attempts to investigate how production performance is affected by the absenteeism. The results reveal that absenteeism in both departments is higher after getting salary. Also it is evident that there are strong relationships between some production factors such as productivity, production drop and efficiency levels in both departments. But compared to them the overall cost has a moderate effect from absenteeism. Also results show no-effect on defect rate from absenteeism. Cut-ship ratio is also not considerably affected by the absenteeism. Results confirm that, absenteeism increases production drop. Both efficiency and productivity are negatively affected by absenteeism. Also higher absenteeism results higher overall cost but not at a considerably higher level. However defect rate and the cut-ship ratio do not significantly differ across those time periods.

## CONCLUSION

- The absenteeism increases during the salary period in every month in both departments.
- Majority of the selected production factors are highly impacted by the absenteeism in both departments except the cost, the defect rate and the cut-ship ratio.
- The factors and the affection by the absenteeism in two departments have a significant difference. Effect of absenteeism is higher in finishing department than sewing department.

- The production drop has a positive relationship with the absenteeism while the efficiency, productivity and the cost have a negative relationship. Even though the defect rate and the cut-ship ratio have positive relationships with the absenteeism, they are weak relationships.
- Compared to other time periods, majority of the sewing factors significantly differ during the 2<sup>nd</sup> 10 days of a month.

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