



## A Study on Employees' Absenteeism in a Food Manufacturing Company in Sri Lanka

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### ABSTRACT

In today's competitive environment, companies are increasingly focusing on issues that affect cost and productivity. The absenteeism at the workplace of employees is one of the major issues hampering the progress of a company today. In mass production industries, almost every production process is dependent upon other processes and an unexpected absence of an employee in a particular department may cause problems to another department or even to the entire plant. This paper on factory employees' absenteeism in a Food Manufacturing Company in Sri Lanka, tries to cover various habits of employees, which are responsible for absenteeism. The objectives were to examine the causes of absenteeism and to introduce appropriate management strategies to contain absenteeism. A questionnaire was developed to explore the reasons for absenteeism. Data were collected by author observations, personal interviews, questionnaires and secondary data sources and 100 factory employees were selected as a sample. Data were analyzed using reliability testing, univariate analysis, factor analysis, regression analysis and residual analysis by SPSS. It was identified, that employee category, gender, marital status, experience of employees, welfare facilities, working environment, shift management, personal matters and health problems are factors which affect the employee absenteeism. Further, new management strategies are proposed to control the issues due to absenteeism viz. increasing the percentage of outsourced employees, changing the criteria for recruiting employees, reducing cleaning work at night shifts, counseling programs and better employee allocation.

**KEYWORDS:** Absenteeism Rate, Factory Employees, Internal, Outsourced

### INTRODUCTION

The absenteeism is a common problem in many industrial units, small or big, private or government. As a company which produces consumer goods, ABC\* Company always tries to satisfy its customers by providing quality products at the right time at the right place. The effect of absenteeism at workplace is directly related to decreased productivity, which has drawn the attention of the higher management. Sometimes it could cause indiscipline too among the employees. Therefore absenteeism is a serious problem at the workplace and an expensive occurrence for

Both employers and employees in the company. A satisfactory level of attendance by employees at work is necessary to ensure the achievement of objectives and targets of the company.

### LITERATURE REVIEW

#### Definitions of Absenteeism

The Irish Business and Employers Confederation in 2011 defined the absenteeism as "Unscheduled disruption of the work process due to days lost as a result of sickness or any other cause not excused through statutory entitlements or company approval"

Harrison & Martocchio (1993), defined it as "Lack of an individual physical presence at given location and time when there is a social expectation for him or her to be there".

#### Costs of Absenteeism

In discussing absenteeism and its impact on an organization, Naughton (2005)

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\* Not the actual name of the company

identified direct costs and indirect costs due to absenteeism. Bennett (2002) concluded that a huge amount of money was spent on unnecessary work due to the absence at work. Sick leave was found as the most common excuse to be away from work because it would be paid.

### **Causes of Absenteeism**

In discussing causes of absence, the Irish Business and Employers Confederation, 2011, identified the reasons for both short term and long term absence. Short term absence was accounted for by minor illness, home responsibilities, back pain, low morale and the long term absence by recurring health problems, accidents outside the work and mental ill health.

### **Absence Management Strategies**

Fowler (1998) noted that many firms that offer attendance bonuses believed such incentives reduced absence rates, however, he highlighted the risk that good attendance being rewarded financially could possibly create a misunderstanding that attendance is more important than a normal work requirement.

## **RESEARCH OBJECTIVES**

The main objective of this study is to identify the factors which affect the employees' absenteeism in a food manufacturing company in Sri Lanka. Further this study would propose management strategies to control the issues due to absenteeism.

## **RESEARCH PROBLEM**

Absenteeism is a serious workplace problem and an expensive occurrence for both employers and employees in ABC Company. Unexpected absence disturbs the efficiency of the process as the work is interconnected. If one person remains absent without prior notice the whole process will be disrupted. As this company heavily depends on the line production, absenteeism of factory employees directly affect the

production process. This company is situated in a rural area where there are many other companies nearby. So they have a problem of hiring new employees to fill the gap created by absent employees. For an organization it is cost effective if they can retain their employees in the organization rather than recruiting new employees. Therefore this study is focused on finding ways of decreasing the employees' absenteeism through new management strategies.

## **METHODOLOGY**

Characteristics of employees and factors affecting the employees' absenteeism were identified by literature review. Based on the facts collected, a questionnaire was designed to identify the factors affecting employees' absenteeism in the selected company. Meanwhile, required secondary data were collected through the annual attendance reports of the company and outsourced companies.

Initially, the stratified sampling technique was employed to collect a representative sample as employees are from different departments. Further, systematic sampling technique was applied to select the sample unit from each department. Before statistical analysis carried out, the data collected were tested for their reliability, using Cronbach's Alpha value. The appropriateness of factor analysis was tested using Bartlett's test. Then a factor analysis was conducted to identify different variables by letting all dependent variables into one factor. Next multiple regression analysis was carried out to develop a model to identify the significant factors which affect the absenteeism rate. Finally, a residual analysis was conducted to check the adequacy of that model. Based on the results, were commend measures to reduce absenteeism in a Food Manufacturing company in Sri Lanka.

## **DATA COLLECTION AND ANALYSIS**

The primary data collections were carried out using a structured questionnaire

from systematically selected 100 factory employees representing each section of the company. Secondary data were collected from annual attendance reports of the company and monthly attendance sheets of the outsourcing companies. Nine months of data from 01/01/2014 to 30/09/2014 in attendance reports were used to calculate absenteeism rate based on the following Equation 1.

$$\text{Absenteeism Rate} = \frac{\text{Total number of absent days in the period}}{\text{Total number of working days available in the same period}} \times 100$$

**Equation 1: Absenteeism rate**

This calculation did not include public holidays, other days on which the section is closed and maternity leave as absent.

The questionnaire consists of five major sections, namely personal information, company issues, working environment conditions, management issues, welfare facilities and work related information. The responses were entertained on the 5-point LikertScale.

Cronbach's alpha value was calculated and it was 0.89 > 0.7 suggesting that the internal consistency of the questionnaire was acceptable.

According to the analysis, 68% of respondents were outsourced and 32% of respondents were internal whose summary of the univariate analysis is presented in Table1.

According to the above Table 1, internal employees have high absenteeism rate than the outsourced employees and also results revealed that males are more like to take leave than females. Married employees have high absenteeism rate (6.72%) compared to the unmarried employees (2.49%). The employees in 31-35 age category show the highest absenteeism rate

value (7.98%). Employees who have experience over 120 months show the highest absenteeism rate (8.07%).

**Table 1: Univariate Analysis**

		Mean absenteeism rate (%)
Employee category	Internal	8.08
	Outsourced	2.64
Gender	Male	6.41
	Female	3.22
Marital Status	Married	6.72
	Unmarried	2.49
Age	Less than 21	2.71
	21-25	3.07
	26-30	4.49
	31-35	7.98
	Greater than 35	4.82
Experience (in months)	Less than 24	2.1
	25-48	3.19
	49-72	5.9
	73-96	6.43
	97-120	6.27
	Greater than 120	8.07
Section	Cake	3.07
	Biscuit	3.59
	Cho.& Wafers	4.16
	Rice cracker	2.32
	Candy bar	6.88
	Warehouse	8.17
	Engineering	9.98
Premises	3.80	

The KMO measure of appropriateness was tested as the first step in factor analysis and the results are summarized in Table 2.

**Table 2: The Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.840
Sig Value	0.000

The significance value of the Bartlett's test was 0.000 < 0.05, which indicates the correlation among variables in the questionnaire.

A Principal Component Analysis with a Varimax rotation of 25 on the 23 Likert scale questions from this attitude survey questionnaire was conducted to extract factors contained in data. The scree plot given in Figure 1 demonstrates Eigen

values corresponding to each component. There are seven component having Eigen value greater than 1.

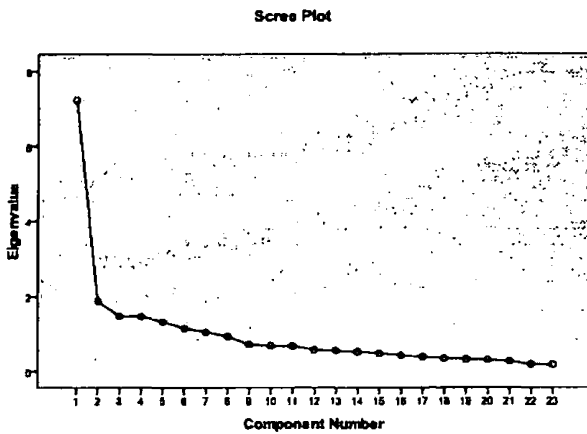


Figure 1: Scree plot

Findings of the factor analysis were summarized in the Table 3.

Table 3: Summary of Factor Analysis

	Eigen value	Variance explained
<i>Factor 1- Welfare facilities</i>	3.467	15.073%
<i>Factor 2- Labour Management</i>	3.083	13.404%
<i>Factor 3- Working environment</i>	2.531	11.004%
<i>Factor 4 - Workload</i>	2.514	10.931%
<i>Factor 5 - Personal Matters</i>	1.409	6.128%
<i>Factor 6 - Shift Management</i>	1.363	5.927%
<i>Factor 7 - Health Problems</i>	1.283	5.383%

The variables regrouped into seven factors and that accounts for explaining of 67.65% of total variance. As the next step of the analysis, multiple regression analysis was performed. Absenteeism rate was the dependent variable and the summary of the multiple regression analysis is presented in below Table 4 and Table 5.

Table 4: Model Summary

Method	Enter
R <sup>2</sup> Value	0.773
ANOVA Sig. value	0.000

Table 5: Details of Regression Coefficient

	Coefficient value	Significant value	VIF value
Emp. Type (internal)	2.806	0.000	2.206
Male	1.574	0.004	1.835
Married	1.566	0.007	2.168
Experience	0.017	0.023	2.634
Welfare facility	-0.852	0.044	1.925
Working environment	-0.992	0.029	1.706
Shift management	-1.168	0.002	1.943
Personal matter	0.692	0.028	1.314
Health problems	0.882	0.002	1.222

The results from ANOVA test reveal that the overall model was significant (0.000 < 0.05) in predicting absenteeism rate. Moreover 77.3% of variation in absenteeism rate can be explained by the model. VIF values conclude no multicollinearity among factors included in the model.

The relationship between absenteeism rate and the other nine significant variables was given in equation 2.

$$\text{Absenteeism rate} = 2.806(\text{Internal}) + 1.574(\text{Male}) + 1.566(\text{Married}) + 0.017(\text{Experience}) - 0.852(\text{Welfare facility}) - 0.992(\text{Working environment}) - 1.168(\text{Shift management}) + 0.692(\text{Personal matters}) + 0.882(\text{Health Problems})$$

Equation 2: Multiple Regression Equation

Employee type, gender, marital status, experience of employee, personal matters and health problems are positively and significantly related with absenteeism rate. While welfare facilities, working environment and shift management are negatively and significantly related with absenteeism rate.

Residual analysis revealed that errors are normally distributed and has constant variance. This concludes the adequacy of the fitted model.

## RESULTS AND DISCUSSION

According to the results, internal employees tend to show the highest absence behavior than the outsourced employees. The reason for this problem may be because internal employees receive a fixed basic salary and outsourced employees receive their salary only if they attend to work.

Of the absenteeism rates of male and female employees, male absenteeism rate is higher than female absenteeism rate as most of the male employees are married unlike female employees. The reason for higher absenteeism among the married employees may be due to family responsibilities. Another factor causing absenteeism is the seniority of the employees, because there is a higher demand for the experienced employees. The shift management system which is currently used helps to reduce the absenteeism rate as employees are satisfied with that system. In this system the outsourced employees have a twelve hour working shift while internal employee have an eight hour working shift and the shift schedule of outsourced employees is changed weekly and that of the internal employees is changed thrice a day.

By raising the satisfaction level of welfare facilities, the employee absenteeism rate can be reduced. For that company can improve canteen, uniform, medical, refreshment, and job security facilities.

Also, by increasing facilities in the working area and providing a good working environment, the level of workers' satisfaction can be increased. Therefore the company should improve areas like relationship with coworkers, clarity of their job, job responsibilities, flexibility and independence allowed.

## CONCLUSION

The main purpose of this study was to identify factors that affect employees' absenteeism at a Food Manufacturer in Sri Lanka and recommended measures to

overcome the problem. It was found that type of employee, gender, marital status and level of experience are the causes that contributed heavily on high absenteeism. Moreover health problems and other personal matters also made significant contributions to increase the rate of absenteeism.

It is vital for the company to create more shift based working environment as it significantly reduced employees' absenteeism. Also, by increasing satisfaction level of welfare facilities of employees and creating friendly working environment would help in reducing the absenteeism. Increasing the percentage of outsourced employees, changing the criteria for recruiting employees, reducing cleaning work at night shifts, counseling programs, better employee allocations are some of the actions that may be taken to develop positive attitudes and encourage of employees.

## REFERENCES

- Bennet, H. (2002). Employee Commitment: the key to absence management in local government?. *Leadership and Organisational Development Journal*, 23, 430-41.
- Fowler, A. (1998). How to cut absenteeism. *People Management*, 4, 44-47.
- Harrison, D.A., and Martocchio, J.J. (1993). Time for Absenteeism. *Journal of Management*, 24, 305-350
- Irish Business and Employers Confederation. (2011). *Employee Absenteeism. A Guide to Managing Absence*. Irish: IBEC Research Unit
- Naughton, D. (2005). *A study of absenteeism within company x, its causes and the management of it*. Ireland: National college