

IDENTIFYING SOLUTION ALTERNATIVES TO CURB EMPLOYEE ABSENTEEISM USING ANALYTIC HIERARCHY PROCESS

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Abstract

This paper reports the findings of a survey analysis done to identify reasons for absenteeism and suitable remedial mechanisms to curb absenteeism among employees at an organization. Eight criteria that mostly influence employee absenteeism were selected from fifteen criteria obtained through a survey involving twelve employees with highest absenteeism record. In addition, five remedial mechanisms to curb the problem were identified. The final decision on the one remedial mechanism believed to be most suitable and efficient in curbing the absenteeism problem was determined using analytic hierarchy process. The findings revealed that uninteresting work, illness and job stress are three top contributors to employee absenteeism while the top three alternatives to curb this problem are through staff recognition, attendance financial bonus, and counseling.

Index Terms - Analytic hierarchy process, absenteeism, employee, survey.

I. INTRODUCTION

High absenteeism rate is due to the failure of management to control absenteeism, and needs to be monitored consistently and addressed within organizations (Rabe, 2001). According to Kim and Garman (2003), absenteeism is the failure to report for scheduled work. It can further be defined as not being present, missing, inattentive, and/or being preoccupied (Sikorki, 2001).

Absenteeism can be categorized as either uncontrollable or controllable. Uncontrollable absences include family illness, accidents, jury duty, and unexpected emergencies, among others. On the other hand, a typical controllable absence may be due to dissatisfaction with the job or pure laziness. No matter which type, absenteeism is disruptive to any organization (Porter and Steers, 1973) and organizations as well as units in organizations can have an absence culture which leads to increased absenteeism among the members (Rentsch & Steel, 2003; Sanders, 2004).

At a large telecommunication company in Kuala Lumpur, Malaysia, employee absenteeism is being viewed as a major problem. At one of its departments that deal directly with its clients, on an average, about twelve employees or eight percent of its employees are found to be absent daily. This, more often than not, leads to unsatisfactory service delivery, decreased productivity, low staff morale, loss of revenue, as well as the possibility of losing customers. To make sure that customer services are not disrupted, management resorts to several measures such as hiring part-time "on-call" workers, delegating job duties to those who

are present, and requesting some of the employees to work overtime. As a result, more money has to be invested for staff training, employees are overburdened with extra tasks, and working hours have to be extended in some situations.

Disciplinary action seems to be an easier way to curb the problem. The action however may lead to more harm than good. It could drive the wrong behavior among employees. Furthermore, studies showed that punishment for being absent has not been frequently linked to increased attendance (Mowday *et al.*, 1982; Nicholson *et al.*, 1976), but often leads to less of an effect than do rewards (Arvey & Ivancevich, 1980; Landau, 1993). Thus, the management has to find other ways to resolve the problem.

The purpose of this research report is therefore to suggest some alternatives that are believed to be able to reduce the level of absenteeism among those employees. The identification of the solution alternatives involved the following activities:

- i) Identifying the causes of employee absenteeism at this organization.
- ii) Suggesting one probable suitable solution to curb employee absenteeism.

II. SOLUTION APPROACH

To identify the causes of employee absenteeism, twelve employees who scored the highest absenteeism rate for the previous six months (i.e. from 1 July 2011 till 31 December 2011) were selected and asked to answer a simple questionnaire. They were chosen following Morgan and Herman (1976) who states that those who happen to have a poor record of absenteeism may not be hesitant to do so again. The questionnaire consists of fifteen most common factors (Table 1) of employee absenteeism found in the literature as well as from the suggestions by the organization's in-house counselors.

TABLE 1: CAUSES OF EMPLOYEE ABSENTEEISM

Causes	Authors/Researchers
Uninteresting work	Yende (2005); Ilgen and Hollenback (1977); Nicholson, Wall and Lischeron (1977); Brooke and Price (1989); Gross <i>et al.</i> , (1994); Lambert <i>et al.</i> , (2005)
Illness/Health	Yende (2005); Dalton and Perry (1981); Brooke and Price (1989)
Job Stress	Stinson (2009); Yende (2005); Kim and Garman (2003); Brooke and Price (1989); Gross <i>et al.</i> , (1994); Lambert <i>et al.</i> , (2005)
Lack of responsibility of employee	Blau and Boal (1987); Savery, Travaglione and Firms (1997); Kim and Garman (2003); Brooke and Price (1989)
Job involvement	Blau (1994); Brooke and Price (1989)
Lack of leadership commitment	Blau (1994); Munro (2007); Brooke and Price (1989)
Work environment	Brooke and Price (1989)
Lack of motivation	Yende (2005); Bernardin (1977)
Domestic problem	Savery, Travaglione and Firms, (1997); Brooke and Price (1989)
Lack of job security	Dalton and Perry (1981); Nicholson and Goodge (1976); Nicholson, Brown and Chadwick-Jones (1976)
Participation in outside activities	In-house counselors
Transport problem	Savery, Travaglione and Firms (1997)
Evaluation system	Nicholson and Goodge (1976); Nicholson, Brown and Chadwick-Jones (1976); Brooke and Price (1989)
Psychological factor	Kim and Garman (2003)
Substance abuse	Yende (2005); Brooke and Price (1989)

Each employee was then asked to rate the level of significance of each factor in contributing to that employee's absenteeism. A scale of 1 (not significant) to 5 (very significant) was used. The result, in the form of significant mean scores obtained from the twelve employees is as in Table 2 below.

Researchers such as Kousalya *et al.* (2006) and Rangone (1996), suggested that the factors to be considered should not exceed

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ten to ensure effectiveness and practicality. However, based on the mean scores obtained above, we decided to focus on only eight factors which received a mean score larger than 3.00. The other seven factors were eliminated since the mean score for each was significantly less than 3.00.

TABLE 2: MEAN SCORE FOR CAUSES OF ABSENTEEISM

CAUSE OF ABSENTEEISM	MEAN SCORE
Uninteresting work	4.33
Illness	4.08
Job Stress	3.75
Lack of responsibility of employee	3.75
Job involvement	3.42
Lack of leadership commitment	3.42
Work environment	3.25
Lack of motivation	3.17
Domestic problem	1.73
Lack of job security	1.71
Participation in outside activities	1.32
Transport problem	1.28
Evaluation system	1.25
Psychological factor	1.16
Substance abuse	1.14

Next, we asked four top management members and two in-house counselors to suggest one most suitable remedial mechanism (RM) that they feel can curb absenteeism. Initially, the management of the organization would like to identify one remedial mechanism for each cause. However, after much deliberation, taking into account the practicality and cost of implementing the remedial actions, they finally decided to start with just one remedial action for the time being.

They came up with five initial suggestions. The five suggestions were supported by suggestions given in the career literature. The five suggestions are:

RM1: Counseling and motivation program [Dolan (1996); Halloran (1996); Nelson (1996)]

RM2: Group attendance bonus [Nelson (1996); Halloran (1996); Emery (2010)]

RM3: Job flexibility (Emery, 2010)

RM4: Improving infrastructure {Dolan (1996); Emery (2010)}

RM5: Staff recognition (Nelson, 1996)

The six evaluators agreed to identify the most suitable RM via a mathematical technique called analytic hierarchy process (AHP). AHP is a scoring method that was designed and introduced by Saaty (1980) to visually structure a complex decision-making problem into a simple hierarchy and then develop priorities in each level of the hierarchy by carrying out pair-wise comparisons of the relative importance of decision criteria, attributes and alternatives. AHP is conducted in three steps Taylor (2012):

- Step 1: Perform pairwise comparisons among criteria or attributes.
- Step 2: Assess consistency of pairwise judgments.
- Step 3: Compute the relative weights of criteria or attributes.

In our particular case then, when the six evaluators completed the AHP exercise, they would be able to rank, prioritize, and give proper weightage on each of the five RMs. Thus, in applying AHP, firstly, each evaluator was asked to do a set of pairwise comparisons between each possible pair of the RMs with regards to which RM each evaluator thinks will be more effective in curbing absenteeism, using a linguistic scale of 1 to 9 which was adopted and modified from Taylor (2012) as given in Table 3.

TABLE 3: SAATY'S PAIRWISE COMPARISONS SCALE

Intensity of Effectiveness	Definition
1	RM <i>i</i> is equally effective as RM <i>j</i>
2	RM <i>i</i> is equally to moderately more effective than RM <i>j</i>
3	RM <i>i</i> is moderately more effective than RM <i>j</i>
4	RM <i>i</i> is moderately to strongly more effective than RM <i>j</i>
5	RM <i>i</i> strongly more effective than RM <i>j</i>
6	RM <i>i</i> is strongly to very strongly more effective than RM <i>j</i>
7	RM <i>i</i> is very strongly more effective than RM <i>j</i>
8	RM <i>i</i> is very strongly to extremely more effective than RM <i>j</i>
9	RM <i>i</i> is extremely more effective than RM <i>j</i>

The values of all the pairwise comparisons are then summarized in a matrix form $[a_{ij}]_{5 \times 5}$. To illustrate, we show in Table 4 below the pairwise comparison matrix produced by evaluator 1.

TABLE 4: PAIRWISE COMPARISON MATRIX BY EVALUATOR 1

	RM1	RM2	RM3	RM4	RM5
RM1	1	1/2	4*	4	1/3
RM2	2	1	5	5	1/2
RM3	1/4	1/5	1	1	1/6
RM4	1/4 **	1/5	1	1	1/6
RM5	3	2	6	6	1

[Note: * indicates that evaluator 1 felt that RM1 should be moderately to strongly more effective than RM3 in curbing absenteeism while ** indicates that evaluator 1 believed RM4 to be moderately to strongly less effective than RM1 in curbing absenteeism.]

Next, with the help of an AHP-software, Expert Choice, the pairwise matrix was then converted into the ranking of each remedial mechanism together with the respective weight which represents the level of effectiveness of each remedial mechanism with regards to other remedial mechanisms. The ranking and the weights are as given in Table 5 below. (Please refer to Taylor (2012) for complete information on the steps involved in AHP).

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TABLE 5: THE RANKING AND WEIGHT FOR EACH RM BASED ON JUDGMENT BY EVALUATOR 1

Remedial Mechanism	Rank	Weight
RM1	3	0.179
RM2	2	0.278
RM3	4	0.056
RM4	4	0.056
RM5	1	0.432

Finally, to obtain the final result, which is the group decision, the weights obtained by each RMs from all six evaluators were averaged out using the simple arithmetic mean. The rankings, the weights, and the group mean weights are as given in Table 6.

TABLE 6: THE RANKINGS (R_k) AND WEIGHTS (W_k) FOR EACH RM BASED ON JUDGMENT BY EACH EVALUATOR AND BY GROUP

RM	Evaluator 1		Evaluator 2		Evaluator 3		Evaluator 4		Evaluator 5		Evaluator 6		Group	
	R1	W1	R2	W2	R3	W3	R4	W4	R5	W5	R6	W6	RGroup	WGroup
RM1	3	0.18	2	0.31	3	0.16	2	0.32	1	0.40	4	0.089	2	0.243
RM2	2	0.28	4	0.07	2	0.24	4	0.05	3	0.08	2	0.295	3	0.168
RM3	4	0.06	3	0.11	4	0.05	3	0.12	5	0.05	5	0.035	4	0.069
RM4	4	0.06	5	0.05	4	0.05	4	0.05	3	0.08	3	0.135	4	0.069
RM5	1	0.43	1	0.46	1	0.50	1	0.47	1	0.40	1	0.445	1	0.451
CR	0.02		0.03		0.03		0.3		0.01		0.04		0.026	

III. CONCLUSION

The top three causes of employee absenteeism are uninteresting work, illness, and job stress. Based on the result given in Table 6, we can see that all evaluators are unanimous in their choice of the number one RM. All of them believed that RM5, staff recognition, would be the most effective remedial mechanism to curb employee absenteeism. The average group score for this RM is significantly higher than the other four RMs (0.451 compared to the next highest score, 0.243). However, while staff recognition may be appropriate to tackle uninteresting work and job stress, it may not be able to eliminate illness problem. Therefore, perhaps the initial intention of identifying one unique remedial mechanism for each cause of absenteeism should be done and implemented. In order to make the remedial actions more practical and cost effective, the study must be extended to other departments in the company.

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