THE COST OF ABSENTEEISM AND THE EFFECT OF DEMOGRAPHIC CHARACTERISTICS AND TENURE ON ABSENTEEISM

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ABSTRACT

Employee's absenteeism, being serious financial burden for businesses which wish to continue their struggle in tough competitive conditions of today, has become a very important issue to be resolved. In this work, absenteeism of blue-collar employee of automobile and truck manufacturer in Turkey has been analyzed. The goal of this paper is to present relationship between demographic characteristics, tenure, department and absenteeism, and the cost of absenteeism to the company. 479 blue-collar employees of an automobile manufacturing company were included in this study. In order to test the hypothesis suggested, three different regression models have been constructed. As results of study, whereas absenteeism is related to educational level, the number of children and department, it is not related with tenure. Also, it is found that the annual cost of absenteeism is $ 42.000

Key Words: Absenteeism, Demographic Characteristics, The Cost of Absenteeism, Automotive Industry, Turkey

Jel No: M54, M21

INTRODUCTION

Today, businesses are required to increase productivity while decreasing their expenses. Absenteeism, low performance level, severance and distrustful behaviors are the behaviors that influence the productivity and efficiency of business enterprices (Örücü and Kaplan, 2001:94). Such behaviors brings high costs to companies and therefore are the issues that must be monitored and dealt with properly.

Worker absenteeism accounts for much lost work-time and therefore has important implications for both firm income and productivity (Brown, Fakhfakh and Sessions, 1999:234). Absenteeism is one of the greatest expenses organizations pay, representing about 57% of total value of goods and services produced. This expense is rapidly increasing each passing day. On average, absenteeism cost organizations about $ 603 per employee in 1997 and about $ 660 per employee in 2005 (Keller, 2008:2). The total costs of absenteeism is calculated at $7,500 per employee per year-almost $300 billion per year for corporate America and more than $3,350 per employee per year-almost 150 billion per year for Canadian businesses (Navarro and Bass, 2006; MacNamara, 2003; Keller, 2008). These results indicate that absence causes how the significant costs for businesses. Therefore understanding the factors that cause absenteeism may help managers to better manage employees's absences, resulting in increased productivity and profitability.

When literature is examined, it is seen that most of studies dealing with employee absenteeism have been carried out. Johns(2001) and Harrison and Martocchio (1998) group literature by the type of data that is used to explain absence. The classes of data are following: (1) personality, (2) demographic characteristics, (3) job-related attitudes, (4) social contex, and (5) decision making mechanisms. The main conclusion they draw from this rather extensive literature is that absenteeism has different origins for different people, times, and contexts'.

The importance of demographic characteristics in explaining absenteeism was acknowleged with the appearance of Price's (1995) model (Rosenblatt and Shirom,

2005). According to Price (1995) demographic characteristics direct affect absenteeism. First, if any demographic variable is found to be causally related to absence behaviour, research may proceed to examine the possible role of specific mediating variables (job satisfaction, motivation e.g.) in the direct effect thus covered (Rosenblatt and Shirom, 2005: 210).

Most of researchers have been advanced demographic characteristics as predictors of absenteeism in several models. Dozens of studies have accumulated in which gender, age, tenure, education level, and family characteristics were measured, and because there was a growing recognition that some of these characteristics consistently predicted absence-taking (Cohen and Golan, 2007; Hayes, O'Brien-Pallas, Duffied, Shamian, Buchan, Huges, Spence Lanschinger, North, and Stone, 2006; Rosenblatt and Shirom, 2004; Harrison and Martocchio, 1998; Rentsch and Steel, 1998; VandenHeuvel and Wooden, 1995; Kristensen, 1991).

Jensen and McIntosh (2007) found that days absent for both men and women are correlated with variables which describe their individual characteristics. These are gender, age, educational attainment, occupation, sector, the number of children living at home, health status, and job duration with organization for which they work and the duration within their occupation.

Rosenblatt and Shirom (2004) have studied to predict absenteeism by personel background factors. Prior absenteeism, age, education and supervisory position were found to be significant predictors of absenteeism frequency, accounting for about 50 percent of the variance in absence frequency.

Cohen and Golan (2007) have examined the impact of prior absenteeism, demographic variables and work attitudes on absenteeism and turnover intentions. The findings showed that those with fewer children under 18 were absent more and marital status didn't affect the absenteeism. In addition to this, the effect of age on absebteeism was not supported.

Age is one of the most studied demographic factors for absenteeism. Most studies report a negative relationship between age and absenteeism among employees in general. Older workers will exhibit a lower absence rate because of a higher job commitment and a better person-organization fit that emerges over time (Martocchio, 1989; Kristensen, 1991; Harrison and Martocchio, 1998).

Hackett(1990) found that the negative relationship between tenure and absenteeism. Lambert (2006) stated that tenured employees may fell secure in their job which may lead to a higher level of absenteeism, while she did not measure the impact of tenure it was observed that employees with a high level of tenure were more comfortable in their work environment. Keller (2008) found that there is a positive correlations between absenteeism and tenure. Those with greater tenure reported greater levels of absenteeism. In that study, it is implicated that this may be related to fact that tenured employees time off is not recorded or managed very closely, or given informal time off whereas newer employees are managed more closely. Jensen and McIntosh (2007) found that tenure in the occupation was positively associated with days absent

Educational attainment may well elevate employees' professionalism, and consequently enhance their level of responsibility and commitment to attandance. Rentsch and Steel (1998) found that the higher education level, the lower absenteeism would be.

Borda and Norman (1997) reported that the number of children and marital status are variables that represent kinship responsibilities and are considered a major contributer to absence. They might lead to higher levels of absenteeism, because of

the increased role demands on employees who are married and have more children (Cohen and Golan, 2007). VandenHeuvel and Wooden (1995) stated that married parents tented to be absent, regardless of their gender.

Following these literature review, the present study is focused on finding whether demografic characteristics, tenure and departments in workplace affect absenteeism and also what the cost of absenteeism for a Turkish automobile company in 2011. For this aim, the independent variables such as demographic characteristics, tenure and departments in workplace examined in this study represent three causes of absenteeism.

THE CONCEPT AND THE CAUSES OF ABSENTEEISM

Absenteeism is defined as the lack of presence of an employee for a planned work (Johns, 2002:437; Kristensen, Juhl, Eskildsen, Nielsen, Frederiksen, Bisgaard, 2006: 1646). Rogersand Herting (1993) defined absenteeism as a choice made by employees which occurs when an employee is absent due to reasons other than illness. Basically absence can be divided into an involuntary part and a voluntary part. Involuantary absence, e.g. certified sickness or funeral attendance, is beyond the employee's immediate control, whereas voluntary absence, e.g. uncertified sickness and shirk, is under the direct control of employee and is often based on personel aims(Nielsen, 2008: 1330). For this study, absenteeism is defined as unscheduled absence from work, regardless of the reason, including long and short term disability.

James and Brian (1992:6) stated that, absenteeism takes two forms. These two forms are frequent offender and long-term absentee. Frequent offender is deliberate and planned and is usually the result of satisfying the urge for an attitude adjustment. This form places a temporary inconvenience on the manager who must find a substitute for the day or partition the absent worker's workload to other individuals. The second form, the long term absentee, is unplanned and usually results from a work of nonwork injury and is not correlated to employee's attitude, abilities or value system. They found out, this second type has more prohibitive costs in terms of indemnity.

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

Increased operating expenses: Absenteeism increases operational costs of a company. If an employee doesn't go to work, his/her work will be assigned to other colleagues that have already workload. Work overload can lead to delays in the delivery times of projects and management will have to pay for overtime to other emploees. Thus, operating costs will be increased.

The collapse of employee morale: Work of the absent employee overloads another employee and this additional workload definitely affects the morale of these employees negativelly. This situation not only decreases efficiencies of employees, but also increases stress. Even if employees get payment for extra work hours, this will result in the lack of communication in the workplace and extra cost for the company. Moreover fail of management to cope with absenteeism will decrease in employees'motivation.

Delays on the project: If an employee doesn't come to work in a regular basis, there will be inevitable delays on the projects and thus, this situation would increase operational costs and therefore decrease customer's satisfaction.

The events described above are only some of the problems created by absenteeism. In fact, managements, which are more aware the importance of effective use of diminishing resources everyday, will impose many restrictions in company such as less workers more work; less resources and less energy consumption more

production. In other words, companies will force employees to do extra work in a variety of tasks. Thus, an absence of a employee at work may impose unplanned delays.

In order to control or reduce absenteeism which causes this type of problems, businesses can perform a variety of applications. Some of these are to make his work more attractive to employees, to make absenteeism less desirable to employees, and to reduce the difficulties regarding their job (Jex, 2002).

THE PURPOSE AND HYPOTHESIS OF THE STUDY

The purpose of this study is to examine the impact of demographic characteristics, tenure and department on blue-collar employees'absenteeism in Turkhis automotive sector.In addition to, it is aimed to find out the cost of absenteeism in this study.

The more general objectives of the study and hypotheses derived from these objectives are given below.

1. To analyze the relationship between demographic variables and absenteeism

    H1.1. Age will have an inverse relationship with absenteeism. Older employees will have less absenteeism.

    H1.2. Married employees will have higher absenteeism.

    H1.3. Employees with more children will have higher absenteeism

    H1.4. Employees with high education level will have less absenteeism.

2. To analyze the relationship between tenure and absenteeism

    H2.1. Employees with high tenure will have higher absenteeism

3. To analyze the relationship between department worked employee and absenteeism.

    H3.1. Employees worked the heavy workload of the department will have higher absenteeism.

4. To calculate the cost of absenteeism for company

METHOD

Participants

This study was conducted 479 blue-collar employees at one of three factories of a company operating in Turkish automotive sector. In this factory built on an area of 1.1 million m2 in Eskişehir, trucks, tow truck, engines are manufactured. This factory with over 10 thousand trucks and engine manufacturing capacity, is main manufacturing center of truck in Europe and factory have been assessed as the best manufacturing plant among all European factories in 2011.

Data Collection Process

Data used in this study have been acquired with the permission of the factory during the year 2011. During this follow-up, according to department, daily absences of employees have been also collected for 12 months and then organized to perform our research. In addition to this, the data about the demographic characteristics of employees were taken from the human resourses department.

Data Analysis

Research hypotheses were tested by hierarchacal regression analysis. Each of the regressions in this study was conducted using the following steps. In the first step, the five demographic variables (age, educations status, marital status, children, birth place) were entered into equation. In the second step, demographic variables and tenure were entered. In the third step, demographic variables, tenure and department were entered .H.1.1., H1.2., H1.3. H1.4., H2.1., H3.1. were tested by comparing correlations magnitudes.

ANALYSIS AND RESULTS

Demographic Characteristics

When the demographic characteristics of blue-collar employees in the factory has been examined, it has been seen that employess aged 27-34 ages constitutes 50% of all employees; most of them are graduated from vocational high schools and doing jobs related to their educational area. Additionally, while 65% of blue collar workers are married, 50% of employees have children. Almost, 30% of all employees has been determined as working in the truck maintenance department where most of factory blue-collar workers are employed. On the other hand, while about 10% of blue-collar employees in factory has completed 1 year in the factory; approximately 50 % of employees are there for 5 -9 years. Shortly, it has been determined that the management have promoted 50% of employees in factory while 10 % of employees are leaving the company within 1 or 2 years. Thus, turnover rates has been seen as 10% and this situation is understood to be positive.

TheEffect of DemographicCharacteristics, Tenure and Departments of Blue-Collar Employees on Absenteeism

In this study, Hierarchical Multiple Regression Analysis was used to investigate the relationship between the dependent variable of absenteeism and independent variables. Whether there is a relationship between depended variable of absenteeism and independent variables such as demographic characteristics of employee, tenure and departments has been tried to find out with Hierarchical Regression Analysis in this study. At the same time the strength and type of this relationship was determined.Descriptive statistics and the correlation analysis results obtained from regression analysis are given in Table 1.

Table 1 Correlation Matrix

	Mean	1	2	3	4	5	6	7
Absenteeism	59.8414							
Age	34.2118	**0.039***						
Education Status	3.9833	**-0.082***	**-0.157***					
Marital status	1.2390	-0.024	**-0.493***	**0.118***				
The number of children	1.0914	-0.006	**0.631***	**-0.165***	**-0.554***			
Tenure	9.8040	**0.052***	**0.785***	**-0.166***	**-0.483***	**0.605***		
Department	32.9780	**-0.083***	**0.139***	**0.84***	**-0.84***	**0.053***	**0.131***	

*p<0.1 Significant Level
**p<0.05 Significant Level

Correlation matrix given in Table 1 shows that there are significant relationships between some variables. Especially, the relationship between tenure and age of employees (0.785), the number of childrenand age of employee(0.631) have been received the highest value.

The results of hierarchic regression analysis that are used to test the hypothesis are shown in Table 2. Three models were tested separately. In the first model, only the demographic characteristics of workers; in the second model, both the demographic characteristics and tenure; in the third model, demographic characteristics, tenure and departments being worked were taken as variables of the research. This approach makes the comparison of subjective influences of each of 3sets of variables on the variant, possible. By these regression results, it can be found out how other variables

will change if only one of the variables used in Model I, Model II and Model III changes one unit.

Table 2. Hierarchical Regression Analysis

	MODEL I	MODEL II	MODEL III
Age	0.058	0.016	0.026
Education Status	**-0.81****	**-0.079****	**-0.70****
Marital status	-0.024	-0.019	-0.22
The number of children	**-0.069***	**-0.079***	**-0.086****
Tenure		0.065	0.072
Department			**-0.088****
R^2	0.10	0.11	0.19
Adjusted R^2	0.006	0.007	0.014
F	**2.8260****	**2.611****	**3.626****

*p<0.1 Significant Level

**p<0.05 Significant Level

In Model I, age, education level , marital status and the number of children were analyzed as demographic characteristics. In the regression of demographic variables and absenteeism, it is seen that only educational level and the number of children have a statistically significant effect on absenteeism. This result shows that as education level goes down, absenteeism rates increases.The result about the relation between number of children and absenteeism which has 10% of statistical importance expresses that as the number of children lessens, rate of absenteeism increases.Demographic characteristics explained 10% of variant on absenteeism (Adjusted R^2=0,006).

When the results are examined in Model 2, it is concluded that educational level and the number of children have a statistically significant effect on absenteeism at 10% level and 5% level, respectively. As a result of this, it is stated that as the education level and the number of children increases, the rates of absenteeism decreases. Tenure had no influence on absenteeism. Demographic characteristics and tenure explained 11% of variant on absenteeism (Adjusted R^2=0,007)

In Model 3, the regression analysis between absenteeism, demographic characteristics, tenure and department being worked was calculated as 5% statistically meaningful. According to the regression results of Model 3, department being worked has 5% statistically meaningful influence on absenteeism. By this model it was understood that education status, number of children and departments influence absenteeism in negative direction. Thus, as the education level and number of children increases, absenteeism decreases, but as the working conditions of the department gets heavier, absenteeism increases. Independent variables choosen explain 19% of variant on absenteeism (R^2=0,014).

According to the result Model 3 Regressionanalysis, theregressionequation (mathematical model) predictingabsence is shownbelow.

Absenteeism= 102.515+0.392 Age-9.403 Education Status-5.004 Marital Status-9.028 The Number of Children+1.206 Tenure-0.437 Department

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As over results of this research H1.4. "Employees with high education level will have less absenteeism", H3.1. "Employees worked the heavy workload of the department will have higher absenteeism." are accepted.

The Cost of Blue-Collar Employees' Absenteeism to Company

To determine the cost of blue-collar employees' absenteeism to the company, firstly their regular pay for one hour is checke and it was found as TL 6,7 (3.72 USD) per hour. Then absenteeisms were goruped into six: (1)day-offs given by the company doctor, (2)visits to hospitals,(3) absences without an excuse,(4) absences because of job-related injuries, (5)day-offs given by public hospital doctors, and (6) holidays without pay.

According to result of the analyzes conducted to determine the cost of absenteeism to company, the total cost of permission given by doctor of factory in a year was USD, absences for visits to the hospital was found to be 27,682 USD, absenteeism without reason is 527 USD and for absenteeism due to work accidents was 3,536 USD. The total cost of blue-collar employees' absenteeism was 32,410 USD in 2011.

Disability compensation given for job-accidents, job related diseases, illnesses and motherhood of women is half of the daily earnings for inpatient treatments and two-thirds of the daily earnings for outpatient treatments. Since daily salary 30 USD and hourly 3,16 USD, the total cost of the reports received from social security for the company is 9,743 USD in 2011.

CONCLUSION

Absenteeism is one of the most important issues to be resolved by the company , due to its serious costs. Absenteeism not only damages the workflow and manpower planning in the workplace, but also reduces production efficiency. When the production efficiency of company falls off, competitiveness of the company is negatively affected. Top management team needs to avoid these consequences, starting by identifying factors causing the absences and then must think ways to eliminate these factors determined.

From this point of view, abstenteeism rates of blue-collar employees working in a company operating in automotive sector in Turkey have been examined and factors that might cause abstenteeism have been investigated. To do this, multiple regression (hierarchical regression) has been used.

According to the results of multiple regression analysis, we can say that although tenure has no influence on absenteeism, education level and number of children has. Namely the higher the education level and the higher of the number of children, the lesser the absenteeism. Another fact is that, heavier the working conditions of a department, higher the absenteeism level. As known, another aim of this research was to calculate the cost of absenteeism to the company. For the year of

2011, this value was calculated as $42,222. Blue collor workers are paid $3,72 per hour, so loss in work power corresponds to 11,344 hours.

A a result of this study, for a company management it becomes a necessity to work on this particular subject which brings high costs to the company to look at its future confidently and to understand how it will regain such losses by creating new labor resources

Absenteeism issue has being dealt with as goverment policies by many developed countries in the world (USA, Germany, Canada, England, etc.) , particularly to increase productivity and it is clearly seen they achieved this goal. What must be done in Turkey is that absences must be placed on strategic objectives of the policy of the state and enterprises. In future, addition to this researh, the influence of absenteeism on performance of bluecollor workers can be investigated.

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