An Empirical Study of Employee Absenteeism and Big Five Personality Traits

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Abstract

The purpose of this study was to investigate the relation of five factor model of personality and frequency of absenteeism prevailing among workers of Lock Industry in Aligarh. A sample of 200 employees was drawn by using a convenience sampling technique. Questionnaires were distributed to all the employees drawn. Among them, 178 were valid samples, a valid return rate of 89%. The questionnaire had two instruments which measured the participant’s absenteeism patterns and five personality dimensions. To measure frequency of absenteeism the dimensions of absence patterns developed by Huse and Taylor, (1962) was used. Five Item Personality Inventory developed by Christopher and Oliver (2009) was used to measure five dimensions of personality – Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience. The collected data was analyzed using descriptive and inferential statistics. Further, the data were analyzed using mean, standard deviation, reliability analysis, correlation and multiple regression (OLS) by using SPSS. The empirical results of the study showed that (i) the personality types of extraversion, agreeableness, conscientiousness and openness to experience had significant negative relationships with absenteeism (ii) neuroticism had significant positive relationship with absenteeism. The purpose of conducting this research is understand the most prevalent factors of personality traits that generate a huge impact on absenteeism of workers in lock industry in Northern part of India. Firstly, the researcher conducts a background to fully
understand the concept of absenteeism and personality traits before proceeding to research work. Research objectives followed by hypotheses are then developed to enhance the reliability of research and to provide a guideline to research problems.

**Key Words: Absenteeism, Big Five Personality Traits, Ordinary Least Square, Cronbach’s Alpha**

1. Introduction

This paper focuses on the construct ‘Personality Traits’ and its relationship with withdrawal behaviors. Information about the determinants of absenteeism is valuable for firms as well as policy makers. However, a recent study concludes after analyzing an extraordinary rich set of explanatory variables for the determinants of absenteeism that “most of the cross-sectional variation in absenteeism is ultimately ‘explained’ by unobserved time invariant individual characteristics”\(^1\) In this paper personality is measured by a Big Five personality scale as an important individual determinant of attendance decisions. A recent trend in organizational research is dispositional explanations for the attitudes individuals display at work and their subsequent effects on employee behavior. This body of research has led to renewed debate over the relative effects of dispositional versus situational variables on work attitudes, roles, and behaviors. Therefore, whereas some argue that dispositional constructs are relevant to understanding human behavior\(^2\), others suggest that situational variables are more useful predictors of people’s attitudes and behaviors in organizational settings and that the search for dispositional effects likely will prove unproductive\(^3\).

Personality is defined as the combination of stable physical and mental characteristics that give the individual his or her identity. These characteristics or traits includes how one looks, thinks, acts and feels.\(^4\) Personality can be defined as a ‘relatively enduring pattern of recurrent interpersonal situations which characterize a human life’,\(^5\) whereas absenteeism relates to, not

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attending work for all or part of a given time period and can occur for a number of different reasons including sick leave, vacation, family medical leave, elder and child care, maternal/paternal leave, and other related situations. This study investigates the relationship between each personality dimension and absence pattern, because of the fact that Big Five provide the best representation of a person’s personality.

2. Objective of the Study
The primary purpose of the study was to investigate the relationship between five factor model of personality and frequency of absenteeism amongst workers of Lock Industry in Northern Part of India.

3. Review of Literature and Development of Hypothesis
Hypothesis were logically formulated by considering the characteristics associated with each of the big five traits and by using empirical reports on the relationship between frequency of absenteeism and personality traits.

The psychological literature on absenteeism was prevalently concerned with negative work attitudes, e.g. job involvement, job satisfaction, organizational commitment and burnout. As absenteeism represents a specific behavior whereas work attitude is a more general construct, attitudes are likely to be insufficient as explanatory variables of absenteeism. A particular problem in this literature is the fact that it is difficult to come up with a precise definition of the variables and constructs. Therefore, relatively stable characteristics like personality traits might be a fruitful way to explain absenteeism as was proposed by several researchers. Personality has become an indispensable consideration for employers looking for dedicated employees who will not engage themselves in much absence prone behaviours. Personality influence becomes less obvious if a workers’ place of work is not a highly socialized

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environment and if the job is traditional. This leads to more absenteeism because the employees thus seek a highly interactive arena outside their work place. Porter and Steers\textsuperscript{10} argued that employees with extreme levels of emotional instability, anxiety, low achievement orientation, aggression, independence, self confidence, and sociability are more likely to be absent than employees with more moderate levels of these personality traits. Bernardin\textsuperscript{11} tested this hypothesis on the basis of a sample of male sales professionals and found support only for the effects of extreme anxiety levels on absence. Froggatt\textsuperscript{12}, argued that absence reflects inherent and long-standing personality characteristics that account for the stability of absence over time and across situations. Absence proneness emerged as the explanatory concept. However, unlike most other personality characteristics, which are measured through conventional psychological scales, absence proneness typically has been inferred through less conventional methods.

4. Big Five Personality Traits

4.1. Extroversion

Extroversion is characterized by sociability, assertiveness, social dominance, ambition and tendencies towards action. Therefore, those who report high scores on extroversion are more likely to report higher scores on work involvement as their work enables them to meet their aspirations and exhibit their talents.\textsuperscript{13} Empirical research is in line with the above reasoning, as it suggests a positive relationship between extroversion and absenteeism. Previous researches provide some limited support for the existence of a positive relationship between extraversion and absence behavior. Cooper and Payne\textsuperscript{14} found a positive relationship between the two constructs. Contrarily, another study found that sociability was negatively associated with an indicator of employee reliability in a study reanalyzing previous data.\textsuperscript{15} Erdheim et al\textsuperscript{16} found a


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negative influence of Extraversion on which leads to the postulation that potential negative consequences of absence are valued less. Thus, although there are limited empirical data, this evidence and the nature of extraversion caused the researcher to develop relationship between Extraversion and absence behavior. This leads to proposed hypothesis.

**There is no significant relationship between Extraversion and Frequency of Absenteeism of Workers**

4.2. Agreeableness

Agreeableness suggests courtesy, flexibility, cooperation, forgiveness, trust, tolerance.\(^{17}\) Because agreeable employees tend to regard their work as a platform to improve their personal value and earn respect, such workers absent less. Empirical research also reports a negative relationship between agreeableness and absenteeism. For example, workers who often set higher goals to gain a much higher sales volume were given higher supervisory ratings if compared to other workers. As a result, they are often considered as an important and talented worker of the organization.\(^{18}\) Although because of empirical data, this evidence and the nature of agreeableness caused the researcher to develop relationship between Agreeableness and absence patterns. This leads to proposed hypothesis.

**There is no significant relationship between Agreeableness and Frequency of Absenteeism of Workers**

4.3. Conscientiousness

Conscientious individuals are best identified for their efficiency, organization, determination, and productivity. No wonder, then, that this personality dimension has been reported to be significantly associated with various types of performance. Mowday and Spencer\(^{19}\) found that self-reported need for achievement correlated negatively with personal absence, whereas Hogan and Hogan\(^{20}\) found a positive relationship between responsibility and employee dependability

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(absent patterns). The achievement-orientation component of conscientiousness has also received some attention in the absence literature. Thus, no research has directly investigated the relationship between conscientiousness and absence. However, the nature of the construct, and several suggestive studies, the researcher found a significant relationship between conscientiousness and absence. This leads to proposed hypothesis.

**There is no significant relationship between Conscientiousness and Frequency of Absenteeism of Workers.**

### 4.4. Neuroticism

Neuroticism encompasses characteristics that include excessive worry, anger, depression, pessimism, low confidence, which tend to create negative opinions. Porter and Steers\(^{21}\) suggested that employee absenteeism be viewed as an impulsive, spontaneous form of behavior. Martocchio and Harrison\(^{22}\) suggested that neurotic people feel so much pressure in their jobs that absence can be seen as part of a coping strategy. However, the nature of the construct, and suggestive studies, the researcher found a significant relationship between neuroticism and absenteeism. This leads to proposed hypothesis.

**There is no significant relationship between Neuroticism and Frequency of Absenteeism of Workers.**

### 4.5. Openness to Experience

Openness includes curiosity, ability to be imaginative, broadminded, receptivity of new ideas, flexibility of thought and inventiveness. Openness to experience and to Absence Pattern has no theoretical or empirical basis. As this is the important personality domain in Big Five Model. So, the researcher hypothesized null expectation with respect to this facet of FFM. The proposed hypothesis is

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\(^{22}\) J.J. Martocchio, and D.A. Harrison, ‘To be there or not to be there? Questions, theories, and methods in absenteeism research’, Research in Personnel and Human Resources Management, Vol.11, 1993, pp.259-328.
There is no significant relationship between Openness to Experience and Frequency of Absenteeism of Workers.

5. Research Design

The questionnaire for this study was constructed through literature review of empirical research work and the scales of previous research authors. Scheduled Questionnaire has been used as a medium for data collection as it able to reach out the element of transparency. The questionnaire consists of 16 questions which are having 3 sections; Section A and Section B. Section A of questionnaire is based on the frequency of absenteeism which constitutes Absence Frequency, Intensity of Absence, Attitudinal Absences and Medical Absences in the sample units. This section consists of seven questions, which was based on ordinal scale having nominal properties. Section B is based on the personality characteristics of the sample unit workers, namely, Extraversion, Agreeableness, Conscientiousness, Neuroticism, Openness. All the questions are designed in interval scale having both nominal and ordinal properties and at the same time they also capture information about the differences in quantities of a concept. Five-point Likert Scale is employed to all the in which higher scores indicate higher agreement with each statement.

6. Instruments

Two standardized instruments were used to collect data and responses from the respondents. The instruments are:

6.1. Various dimensions of Absence Patterns developed by Huse and Taylor, (1962) were used for measuring frequency of absenteeism. The Cronbach’s alpha value of the frequency of absenteeism was 0.89. The mean and standard deviation for absence rate (N=178), were 2.45 and 0.73 respectively.

6.2. Big Five Personality Inventory developed by Christopher and Oliver (2009) was used to measure five dimensions of personality- Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness to experience. Cronbach’s alpha for Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness were 0.71, 0.83, 0.81, 0.86 and 0.91 respectively.
Analysis and Results

The data were analyzed using Product Moment Correlation Coefficient and Multiple Regression using OLS to investigate the relationship among the variables so as to clarify the relationship patterns for the personality traits and frequency of absenteeism. SPSS data analysis package of 20th version was used to analyze the data.

Table 1: Product-moment correlation coefficients

<table>
<thead>
<tr>
<th></th>
<th>FOA</th>
<th>Extraversion</th>
<th>Agreeableness</th>
<th>Conscientiousness</th>
<th>Neuroticism</th>
<th>Openness to Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absenteeism (FOA)</td>
<td>1.000</td>
<td>-0.056</td>
<td>-0.079</td>
<td>-0.142</td>
<td>0.032</td>
<td>-0.134</td>
</tr>
<tr>
<td>Extraversion (E)</td>
<td>-0.056</td>
<td>1.000</td>
<td>0.221</td>
<td>-0.062</td>
<td>0.043</td>
<td>0.097</td>
</tr>
<tr>
<td>Agreeableness (A)</td>
<td>0.079</td>
<td>0.221</td>
<td>1.000</td>
<td>-0.067</td>
<td>-0.075</td>
<td>0.176</td>
</tr>
<tr>
<td>Conscientiousness (C)</td>
<td>-0.142</td>
<td>-0.062</td>
<td>-0.067</td>
<td>1.000</td>
<td>-0.038</td>
<td>-0.010</td>
</tr>
<tr>
<td>Neuroticism (N)</td>
<td>0.032</td>
<td>0.043</td>
<td>-0.075</td>
<td>-0.038</td>
<td>1.000</td>
<td>-0.112</td>
</tr>
<tr>
<td>Openness (O)</td>
<td>-0.134</td>
<td>0.097</td>
<td>0.176</td>
<td>-0.010</td>
<td>-0.112</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Significance of ‘r’ at .05 level of significance.

The author decided to find out the efficiency of these independent variables of interval type to predict the variable Frequency of Absenteeism. Regression analysis (ANOVA approach) was adopted to find out the efficiency of the independent variables viz., Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness in predicting the dependent variable Absenteeism. Further, the analysis was carried out using the software for the SPSS to perform Ordinary Least Square method. The basic statistics like the mean and standard deviation of the dependent variable viz., Frequency of Absenteeism and of the independent variables viz., Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness are given in Table 2.

Table 2: Data for OLS Regression Analysis
1. Absenteeism (FOA)  
   Mean: 2.45  
   Standard Deviation: 0.73

2. Extraversion (E)  
   Mean: 3.98  
   Standard Deviation: 0.51

3. Agreeableness (A)  
   Mean: 4.64  
   Standard Deviation: 1.14

4. Conscientiousness (C)  
   Mean: 3.11  
   Standard Deviation: 1.41

5. Neuroticism (N)  
   Mean: 2.98  
   Standard Deviation: 0.67

6. Openness (O)  
   Mean: 2.46  
   Standard Deviation: 0.25

(Source: SPSS Result)

7.1. Running Multiple Regression

Multiple regression is one of the statistical techniques to explore the relationship between a dependent variable and a number of independent variables. In this section, the identified statistical tests has been performed which is compiled with the research objective. The significance level ($\alpha$) is 0.05 for all tests. In addition, diagnostic checking will be implemented to ensure the model with minimum econometric problem, as the assumptions for the multiple regressions are not violated with the condition of larger sample size, absence of multicollinearity and singularity, and the presence of the normality, homoscedasticity and independence residuals.

Table 3: Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>3.567</td>
<td>.680</td>
<td>6.359</td>
</tr>
<tr>
<td>Extraversion (E)</td>
<td>-.230</td>
<td>.051</td>
<td>.031</td>
<td>3.648</td>
</tr>
<tr>
<td>Agreeableness (A)</td>
<td>-.034</td>
<td>.060</td>
<td>-.285</td>
<td>2.496</td>
</tr>
<tr>
<td>Conscientiousness (C)</td>
<td>-.041</td>
<td>.041</td>
<td>.025</td>
<td>-3.237</td>
</tr>
<tr>
<td>Neuroticism (N)</td>
<td>.013</td>
<td>.030</td>
<td>.098</td>
<td>.409</td>
</tr>
<tr>
<td>Openness (O)</td>
<td>-.064</td>
<td>.044</td>
<td>.016</td>
<td>.312</td>
</tr>
</tbody>
</table>

Dependent Variable: Absenteeism (FOA)

(Source: SPSS Result)
7.2. Ordinary Least Square

Ordinary Least Square (OLS) is used to determine the relationship between independent variable and dependent variable. OLS tries to find the function with the best fit, which means the distance between the actual data and the predicted is low. Therefore, model is estimated with OLS is created as follows.

\[ FOA = 3.567 +(-0.230) E + (-0.034) A + (-0.041) C + 0.013 N + 0.064 O + e \]

Multiple Regression Equation shows the relationship between dependent variable and independent variables. It signifies the value of intercept (\(\alpha\)) and slope (\(\beta\)). Intercept (\(\alpha\)) shows the change in frequency of absenteeism when the predictor variables are zero, whereas slope shows the change in dependent variable in respect to independent variable. The (\(e\)) shows the random error that will occur in the prediction of \(Y\) i.e., frequency of absenteeism values for values of \(X\) i.e., independent variables, because it is likely that the independent variables (\(x_1, x_2, x_3, x_4, x_5\)) does not explain all the variability of frequency of absenteeism(Y). The error term (\(e\)) allows the frequency of absenteeism(y) values to vary for any given value of independent variables (\(x_1, x_2, x_3, x_4, x_5\)).

Table 4: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.653</td>
<td>0.581</td>
<td>.365</td>
<td>0.7594</td>
<td>1.71</td>
</tr>
</tbody>
</table>

(Source: SPSS Result)

a. Predictors: (Constant), Extraversion, Agreeableness, Conscientiousness, Neuroticism, Openness.
b. Dependent Variable: Absenteeism.

Table 5: ANOVA

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### Table 6: Results

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Hypotheses Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Negative relationship between extraversion and frequency of absenteeism.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H2: Negative relationship between agreeableness and frequency of absenteeism.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H3: Negative relationship between conscientiousness and frequency of absenteeism.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H4: Positive relationship between neuroticism and frequency of absenteeism.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H5: Negative relationship between openness to experience and frequency of absenteeism.</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

According to the results, which are reported in Table No. 1 and Table No. 3, it is concluded that the strongest significant negative relationship was found between conscientiousness and FOA (r = -0.142, p<0.05). Significant positive correlation was found between neuroticism and FOA (r = 0.032, p<0.05) Weak negative correlation was found between extraversion and FOA (r = -0.056, p<0.05) and between openness and FOA (r = -0.134, p<0.05). Also, significant negative relationship was found between agreeableness and FOA (r = -0.079, p<0.05).

### 8. Conclusion

Based on the results of the study, it can be concluded that all the five dimensions of five factor model of personality have a significant relationship with absenteeism.
Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness to experience are the strong predictors of Absenteeism. Extraversion, Agreeableness, Conscientiousness and Openness to experience significantly and negatively correlated to frequency of absenteeism whereas Neuroticism significantly and positively correlated with frequency of absenteeism. Data analysis shows, workers with higher extroversion, agreeableness, conscientiousness and openness tends to exhibit high levels of broadmindedness, flexibility, dutifulness, performance, sociability and cooperation, which lead to negative relationships with absenteeism. This study also confirms that neuroticism relates positively related to absenteeism, such that a neurotic workers is less efficient in his or her work and have a tendency of withdrawal behaviors. This study offers practical implications also. Organizations should establish a mechanism to identify the various aspects of personality.

9. Limitations and Directions for Future Research

Although the findings of this study are useful, it is limited by several factors. One limitation of this study is that it uses the self-reported data. If the data on personality and absenteeism were collected from managers or superiors of the respondents, the findings may have turned out to be different than the ones reported in this research. Secondly, the major variables of interest in this study are five dimensions of personality and absenteeism. However, exploration of how personality influences other areas in an organization like job involvement, job satisfaction, organizational commitment, leadership styles and turnover intention may be worthwhile. Thirdly, this research focused only on the Lock Industry in Aligarh but other researchers can expand the sample to the other industries.
References:


Web Reference:
http://www.timothy-udge.com/Judge,%20Martocchio,%20&%20Thoresen%20JAP%201997.pdf