

Economics of Organizational Diversity

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Abstract: *In this paper we will develop a model to assess organizational climate, job satisfaction and organizational effectiveness.*

Keywords: *Organizational Climate Questionnaire, Cronbach's alpha, Pearson's product–moment correlation, standard multiple regression, organizational climate, job satisfaction, organizational effectiveness.*

Introduction

Organizational Climate shapes up a work environment for the employees which finally results in a certain level of job satisfaction. This job satisfaction is reflected in the job performance, when added cumulatively results in the organizational performance.

An OCQ (Organizational Climate Questionnaire) is used to collect data on 12-factors which define organizational climate. This is modified to convert it to an 11-factor, relation with the 12th i.e. job satisfaction. Pearson's product-moment correlation coefficient is used to analyze the relationship between organizational climate and job-satisfaction and same for job-satisfaction and organizational performance. A step-wise regression is used to find which of the climate dimensions are best to predict job-satisfaction.

Cronbach alpha coefficient

Cronbach's alpha is a measure used on test items to assess the internal consistency. Therefore, the reliability of any given measurement indicates the extent to which it is a consistent measure of a concept. Cronbach's alpha can be used to assess that consistency.

Cronbach's alpha is computed by correlating the score for each test or scale item with the total score for each observation. Here an observation is an individual survey respondent. We then compare that to the variance for all individual item scores:

$$\left(\frac{k}{k-1}\right)\left(1 - \frac{\sum_{i=1}^k \sigma_{y_i}^2}{\sigma_x^2}\right)$$

where: k refers to the number of scale items

$\sigma_{y_i}^2$ refers to the variance associated with item i and σ_x^2 refers to the variance associated with the observed total scores.

The resulting α coefficient of reliability ranges from 0 to 1. $\alpha = 0$ when all of the scale items are entirely independent from one another. α will approach 1 when all of the items have high covariance. The higher the α coefficient, the more the items have shared covariance and probably measure the same underlying concept.

Pearson's product–moment correlation

Pearson's product–moment correlation will be used for job satisfaction analysis. The relationship between the total organizational climate variable and total satisfaction variable is a large effect size.



$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

The value of r will range between -1 and 1. The closer r gets to 0, the greater the variation the data points are around the line of best fit.

Finally, standard multiple regression analyses will be conducted to assess the magnitude of the correlations between the dependent and independent variables and assess the magnitude of the overall relationship between the dimensions and the independent. The beta value provides information on the contribution of each independent variable. The largest value contributes the most.

Conclusion

We developed a model to analyze job-satisfaction using Cronbach's alpha, Pearson's product-moment correlation and standard multiple regression.

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