



The Role of Emotional Intelligence and Big Five Personality in Leadership

KEYWORDS

Leadership, Emotional Intelligence, Big Five Inventory

Dr. Fatma INCE

Business Information Management, Mersin University, Turkey

ABSTRACT *The purpose of this study is to determine the role of the emotional intelligence and big five personality in leadership. For this aim, a survey which includes the Emotional Intelligence Test, Big Five Inventory, Leadership Questionnaire and demographic questions, have been applied to 119 supervisors of a sugar factory. Firstly, the frequency and percentage distribution of the variables have been observed to see what the features of the sample are. Then the correlation analysis is used for the relationship between variables, whereas multiple regression analysis used to understand which are considered to predict the leadership. Lastly, the group tests are considered to analyze how the demographic factors differ. The results of the analyses show that the emotional intelligence is a predictor of the leadership ($R^2: 0,36$), whereas the personality has not any significant relationship. Also, the age, income and working years have statistically significant difference with the subdimensions of variable.*

Introduction

Emotional quotient, known as emotional intelligence is not only the capacity of individuals to recognize their own and others emotions, but also to discriminate between different feelings to use or manage emotions to adapt environments. Since Daniel Goleman (1995) theory, if or not emotional intelligence has incremental validity over intelligence quotient or personality traits is wondered. However, both approaches of leadership as an innate phenomenon or learned behavior need some personal and emotional traits. So, it is worth considering the relationship between emotions, personality and leadership.

According to the Judge et al. (2002) traits are organized according to the five-factor model, because of the 0,48 correlation. Similarly, Hassan et al. (2016) find that personality has an impact on the leader's effectiveness and styles, while some studies show that leadership is not to some extent associated with personality types (Ehrhart&Klein, 2001). Moreover, Cavazotte et al. (2011) investigate that the effects of intelligence, personality and emotional intelligence on transformational leadership, and find that the neuroticism has negative effects on leadership. Also, Wong and Law (2002) emphasize that emotions affect followers job satisfaction, while they affect leaders extra-role behaviors. So, emotions have a legitimate place in leader selection and development (Walter et al., 2012).

Objectives

The main goal of this study is to determine the role of the emotional intelligence and big five personality in leadership. Thus, the first subgoal is to identify the emotional intelligence, big five personality and leadership levels, and to examine the correlations between variables. Second subgoal is to understand whether the emotional intelligence and personality as predictors of leadership. Final subgoal is to determine differences between the sample groups within the context of variables.

Research Methodology

A questionnaire, which includes three scales and demographic questions is used to collect information from the 119 respondents who work in a sugar factory as a supervisor. Also, the full sampling technique is adapted for the study.

At first, Goleman (1995) Emotional Intelligence Test has 4 dimensions and 12 items which includes 3 for each subdimensions as self-awareness, self-management, social awareness, relationship management. Secondly, Big Five Inventory (BFI-44) has 5 dimensions and 44 items hence the name. The extraversion has 8 items, agreeableness has 9 items, conscientiousness has 9 items, neuroticism has 8 items and finally openness has 10 items in this inventory (Goldberg, 1993). Lastly, The T-P (task-people) Leadership Questionnaire was developed by Sergiovanni, Metzcus and Burden (1969) and then revised by Luthans (1992). This questionnaire originally obtained measures along two dimensions of leadership behavior named task-oriented and people-oriented leadership styles. This instrument in this study is used with 15 items and considered two dimensions as task oriented and people oriented leadership styles.

Data Analysis

Frequencies, independent sample nonparametric tests, Spearman correlation and regression analyses are used to examine the data. Firstly, it is examined by frequencies to see the distribution the participants. Then, correlation analysis is used to quantify the association between the continuous variables, while regression analysis is used to model the relationship between the leadership and its predictors as emotional intelligence and personality. Finally, independent sample tests give the results, whether or not the variables are the same across categories of gender, marital status, income, age, working years.

The dependent variable in this study is leadership which has task oriented and people oriented styles, and the independent variables are emotional intelligence (self-awareness, self-management, social awareness, relationship management) and personality (extraversion, agreeableness, conscientiousness, neuroticism, openness).

Findings

The cronbach's alpha results of the analysis show that Cronbach's Alpha for the emotional intelligence is 87% with 12 items and for the big five personality is 73% with 44 items, while the leadership is 79% with 15 items. Because the data are not distributed normally, nonparametric methods are used in this study.

Table 1: The Frequencies and Percentages of the Participants

Variables		f	%
Gender	Female	52	43,7
	Male	63	52,9
	Missing Value	4	3,4
Age	19-25 years	22	18,5
	26-32 years	18	15,1
	33-39 years	24	20,2
	40-46 years	19	16
	47 + years	35	29,4
	Missing Value	1	0,8
Marital status	Be Married	82	68,9
	Single	31	26,1
	Other	3	2,5
	Missing Value	3	2,5

Income	0-3000 Turkish lira	37	31,1
	3001-5000 Turkish lira	56	47,1
	5001 + Turkish lira	22	18,5
	Missing Value	4	3,4
Working Years	1-5 years	38	31,9
	6-10 years	17	14,3
	11-15 years	11	9,2
	15 + years	49	41,2
	Missing Value	4	3,4

N:119

According to the table, participants from whom data are collected, are mostly adult (29%), married (68) and earn between 3001 and 5000 turkish liras. In a sample of 63 from a population of 119 is male, while 52 is woman.

Table 2: Correlation Analysis of the Relations between Emotional Intelligence and Personality

	Median	Qr. 1	2	3	4	5	6	7	8	9	10	11	
1.SelfAwareness	11,695	1	1										
2.SelfManagement	11,568	1,5	0,422**	1									
3.SocialAwareness	12,000	1,5	0,478**	0,464**	1								
4.Relationship Management	11,638	1,5	0,471**	0,438**	0,643**	1							
5.Extraversion	27,166	3,5	0,04	-0,027	0,016	0,109	1						
6.Agreeableness	33,275	3	0,265**	-0,002	0,076	0,046	0,305**	1					
7.Conscientiousness	33,347	4	0,192*	0,073	0,135	0,153	0,259**	0,667**	1				
8 Neuroticism	21,329	2,5	-0,246**	-0,043	0,034	-0,139	-0,205*	-0,453**	-0,319**	1			
9.Openness	36,286	3,5	0,091	0,081	0,207*	0,314**	0,428**	0,405**	0,273**	-0,336**	1		
10.Task-Oriented	23,000	3,5	0,246**	0,354**	0,245**	0,313**	-0,014	-0,121	-0,118	0,023	0,025	1	
11.People-oriented	29,000	3	0,379**	0,415**	0,375**	0,372**	0,012	-0,013	-0,113	-0,076	0,067	0,524**	1

*Correlation $p < 0,05$ (two tailed); **Correlation $p < 0,01$ (two tailed) N:119

In the second column, the quartile deviation known as semi-interquartile range is based on the lower quartile and the upper quartile, and shows a slightly better measure of absolute dispersion. According to the correlation coefficient results, the extraversion has no significant relationship, the agreeableness has 26% value with the self-awareness, while the conscientiousness has 19% with the self-awareness. Further, the openness has 20% relationship with the social awareness and 31% with relationship management. On the contrary, the neuroticism has negative correlations with the self-awareness (24%), the extraversion (20%), the agreeableness (45%) and the conscientiousness (31%). In addition to these, the total emotional intelligence has 18% relationship with the conscientiousness and 22% with the openness at 0,05 level.

Table 3: Regression Analysis of the Emotional Intelligence as Predictors of the Leadership

Dependent Variables	Independent Variables	B	Std. Error	β	t	p	F	p
Task Oriented Leadership	Constant	9,23	2,78	-	3,32	0,001	7,178	0,00
	Self Awareness	0,26	0,25	0,11	1,03	0,304		
	Self Management	0,70	0,25	0,29	2,78	0,006		
	Social Awareness	-0,11	0,26	0,05	-0,43	0,663		
	Relationship Management	0,36	0,26	0,16	1,37	0,171		
People Oriented Leadership	Constant	8,30	2,32	-	3,57	0,001	19,655	0,00
	Self Awareness	0,43	0,21	0,19	2,03	0,045		
	Self Management	0,71	0,21	0,30	3,36	0,001		
	Social Awareness	0,19	0,21	0,09	0,90	0,366		
	Relationship Management	0,39	0,22	0,18	1,78	0,78		

The regression coefficient of the task oriented leadership value is 0,201 positive, whereas the regression coefficient of people oriented leadership is 0,408 positive. Thus, the second subgoal has been confirmed for emotional intelligence.

When examined the big five personality as a predictor of leadership, it is seen that none of the five sub-dimensions of per-

sonality has a significant beta-coefficient. People oriented leadership has F: 0,665 value and p: 0,651, while task oriented leadership has F: 0,735 value and p: 0,598. So, the F model about personality and leadership is statistically insignificant in this sample.

Considering the nonparametric independent sample test, there are not any significant differences between groups based on gender and marital status ($p > 0,05$). Independent sample median test results show that the null hypothesis is retained for gender and marital status. But some demographic factors such as age, income and working years have significant differences;

The medians of the extraversion are not the same across categories of age (p: 0,020).

The medians of the openness are not the same across categories of age (p: 0,026).

The medians of the self-awareness are not the same across categories of age (p: 0,017).

The medians of the social awareness are not the same across categories of age (p: 0,009).

The medians of the self-awareness are not the same across categories of income (p: 0,011).

The medians of the openness are not the same across categories of working years (p: 0,025).

The medians of the social awareness are not the same across categories of working years (p: 0,013).

As a result of the group test, the gender and marital status have no significant differences, whereas the age, income, working years have different levels between groups with the extraversion, openness, self-awareness and social awareness.

Conclusion and Suggestions

From past to present, the emotions and the personality are wondered and examined so much, because they can affect attitudes, thoughts and behaviors such as success, entrepreneurship and leadership. Thus, the emotional intelligence and big five personality are considered as predictors of leadership in this study. The correlation, regression and other test are used to test this assumption. First, the correlation results give the positive relationship between subdimensions of variables, while the neuroticism has significantly negative relationship with the self-awareness and the extraversion. Secondly, the results of the multiple regression analysis clearly document the emotional intelligence as positive predictors of the leadership in this sample, while the big five personality doesn't show the cooperativeness as a predictor of the leadership, even it does not conclusively any correlations with it (R^2 : 0,36; F: 16,440; p: 0,000). So, the precise impact of personality needs to be further examined. Also, there are some significant differences between groups the medians of ages, incomes and working years for 119 supervisors of a sugar factory. In brief, it can be said that the importance of the study is to provide the relationship between personal traits and leadership, but future researches should examine more perceptions about leaders in a larger sample.

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