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A Research on the Determination of Machiavellian Personality Tendencies

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Abstract

In this study, firstly, the concept of Machiavellianism is expressed. Secondly, the issue of high and low Machiavellian personality is discussed. Thirdly, it is investigated that if 370 university students' demographic characteristics majoring at Trakya University Faculty of Economics and Administrative Sciences will influence Machiavellian personality tendencies. The main objective of this study is to determine whether or not Machiavellian personality tendencies show differences in participants' demographic characteristics. The Mach IV scale was used to measure the tendency to be Machiavellian. Frequency analysis, factor analysis, Kolmogorov-Smirnov normality test, Mann-Whitney U and Kruskal-Wallis tests were carried out. The results of the study showed that the dimension of Unethical Behavior, a sub-dimension of Machiavellian personality tendencies, showed differences according to gender.

Key Words: Machiavellianism, Machiavelllian Personality Tendencies, Machiavelli

Makyavelist Kişilik Eğilimlerinin Belirlenmesi Üzerine Bir Araştırma

Özet

Bu çalışmada ilk olarak makyavelcilik kavramı ifade edilmiştir. İkinci olarak yüksek ve düşük makyavelist kişilik konusuna değinilmiştir. Üçüncü olarak, Trakya üniversitesi İktisadi ve İdari Bilimler Fakültesinde öğrenim gören 370 öğrencinin demografik özelliklerinin makyavelist kişilik eğilimlerini etkileyip etkilemediği araştırılmıştır. Çalışmanın temel amacı makyavelist kişilik eğilimlerinin katılımcıların demografik özelliklerine göre farklılık gösterip göstermediğini belirlemektir. Araştırmada makyavelist kişilik eğilimini belirlemek için Mach IV ölçeği kullanılmıştır. Frekans analizi, faktör analizi, Kolmogorov Smirnov normal dağılım testi, Mann Whitney U ve Kruskal Wallis testleri yapılmıştır. Netice itibariyla makyavelist kişilik eğilimi alt boyutlarından "etik dışı davranış" boyutunun cinsiyete göre farklılık gösterdiği bulunmuştur.

Anahtar Kelimeler: Makyavelcilik, Makyavelist Kişilik Eğilimi, Machiavelli

1. Introduction

It is widely expected that people working in business enterprises in the modern world should display some particular combination of qualities, such as adapting in teamwork, adapting to a new organizational culture and making a difference for a competitive advantage. From this perspective, the determination of Machiavellian tendencies can be seen as an important element for people who will work in business enterprises. The reason for this is that individuals high in Machiavellianism tend to focus on conflict – and therefore have the potential for disrupting an entire organization – and lack of teamwork skills. To put it another way, this will mean the vast majority of busi-

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ness enterprises around the world today, may want to work with people having a low level of Machiavellian tendencies. A notable exception is that employees with high levels of Machiavellianism working in areas, such as purchasing and marketing.

Thus, employees with high tendencies of Machiavellianism personality can pose problems for effective teamwork, along with adapting to organizational culture and policies. Such people are often able to create conflicts within the organization by exerting dominance or power over other people.

In this current study, gender, department, longest place of residence in juvenescence (ages 6-18), number of siblings, father's educational status and mother's educational status, which concerned as 370 students' demographic characteristics majoring in the Faculty of Economics and Administrative Sciences at Trakya University, were investigated regarding their influence on the tendency to be Machiavellian. In other words, the main purpose of this study is to be able to determine whether or not Machiavellian personality tendencies show differences according to gender, department, longest place of residence in juvenescence (ages 6-18), number of siblings, father's educational status and mother's educational status that concerned as the participants' demographic characteristics.

In the study, the Mach IV scale was used to determine the Machiavellian personality tendencies. Data analysis was carried out using SPSS 15. In this context, first, frequency analysis was carried out regarding the participants' demographic characteristics. Then factor analysis was applied to the data scale of Machiavellian personality tendencies. Thus the three sub-dimensions emerged from these analyses. In addition, reliability analyses were carried out pertaining to these specified sub-dimensions. As a result of reliability analysis, it was seen that Cronbach's Alpha value was lower than 0.50 for factor 3 and was excluded from analysis. Furthermore, factor analysis was repeated and two sub-dimensions emerged accordingly. These dimensions were named as 'unethical behavior' and 'assuming other people are bad'. Last but not least, the Kolmogorov-Smirnov normality test was used. Nonparametric tests were applied to deciding that the data were not normally distributed. In this context, Mann-Whitney U and Kruskal-Wallis tests were conducted.

As a result of this present study, it was found that the dimension of Unethical Behavior, a sub-dimension of Machiavellian personality tendencies, showed differences according to gender. That is, female students demonstrated lower levels of Unethical Behavior than male students. It could be said that girls were more ethical than men. In other words, female students demonstrated lower levels of Machiavellian tendencies than their male counterparts due to Unethical Behavior.

2. Machiavellianism

Machiavellianism is a concept based on the sixteenth century writings of Niccolo Machiavelli who offered advice on how to gain power and keep it efficient (Robbins and Coulter, 2012: 383). Machiavellianism is the name for ruthless and selfish approach to management which was purportedly advocated by Niccolo Machiavelli in his treatise called *The Prince* (Boddy, 2011: 114).

Machiavellianism as a concept is a key element based on the sixteenth century writings of Niccolo Machiavelli. This concept involves how an individual can influence people and have power over them. Namely, Machiavellianism is an opinion about the quest for gaining competitive advantage in interpersonal competition (Walter, Anderson and Martin, 2005: 59).

The Prince, the book that made Niccolo Machiavelli famous in the sixteenth century, includes tips on how to achieve personal goals using personal power (Schermerhorn, 2010: 283). Niccolo Machiavelli is probably the first great political philosopher of the Renaissance. His most famous work 'The Prince' is a masterpiece not only because it has a series of theoretical characteristics, but also because it is packed with historical facts as well (Goethals, Sorenson and Burns, 2004: 931).

Additionally, Niccolo Machiavelli's book The Prince includes his own attitudes, strategies and tactics. But Machiavellianism, is a term used to describe an individual that has an immoral reputation for dealing with others to accomplish his/her own objectives (McGuire and Hutchings, 2006: 193).

Furthermore, the basic definition of the concept of Machiavellianism has been described as 'manipulative personality' (Paulhus and Williams, 2002: 556). Sinha takes the view that Machiavellianism can be seen as a concept that expresses a person's manipulative tendencies (Sinha, 2008: 386). In particular, Machiavellianism is based on the acquisition of power and the manipulation of other people for personal gain. Psychologists have devised several tools to measure Machiavellian tendencies (Daft, 2008: 469-470).

Further, Machiavellianism is an approach to reflect the systematic position of an individual who wants to seize every advantage and every benefit for his/her own purpose without considering the rights of the individual or the rights of the overall society (Kolb, 2008: 1309). This means that Machiavellianism involves interpersonal strategies supporting the use of deception, manipulation and exploitation (Ali, Amorim and Chamorro-Premuzic, 2009: 758).

It is important to note that Machiavellianism is the art of manipulation in which individuals manipulate others to fulfill their objectives. Machiavellian tendencies are likely to have a huge bearing on the degree of manipulating others in order to influence general strategies in interpersonal situations (Rayburn and Rayburn, 1996: 1209). As regards the structure of Machiavellianism, it can be expressed as the ability to gain and maintain power in interpersonal relationships (Vigoda-Gadot and Drory, 2006: 32).

Machiavellianism is a social behavior strategy, which is based on the manipulation of others regarding the ultimate fulfillment of the objectives of the individual. Besides, this manipulation case often happens against the other's self-interest. Machiavellianism should be considered as a quantitative trait. In fact, everyone use manipulation to some extent, but some people may tend to show significantly stronger signs of manipulation. Moreover, manipulative behavior is not a single trait but rather a complex set of traits that cannot be captured by a single scale (Wilson, Near and Miller, 1996: 285).

Machiavellianism is pertinent to some psychological structures of paranoia, narcissism, psychopathy, locus of control and depression accordingly. However, Machiavellian is an attribute that basically defines the dimensions of personality (Corral and Calvete, 2000: 4). Hence a Machiavellian character is a personality type based on manipulating others for personal gain (Cameron and Spreitzer, 2012: 147).

3. High and Low Mach Personalities

A person high in Machiavellianism is pragmatic and maintains emotional distance. Thus the question arises: The high Mach makes a good employee? It depends on which types of job the employees are involved and if any ethical consideration is included in performance appraisal. For example, jobs requiring marketing skills (such as purchasing manager), or jobs in which satisfactory awards are given for demonstrated achievements (such as sales stuff who is paid based on a percentage of sales) can be convenient in terms of productivity for those who rate as being high in Machiavellianism (Robbins and Coulter, 2012: 383).

In a modern sense, High-Mach employees tend to be vulnerable to exploitation, aggressive, manipulative and attempt to use devious moves to achieve personal or organization objectives. Furthermore, the needs, feelings or rights of others in the organization are secondary (Rayburn and Rayburn, 1996: 1210).

Individuals high in Machiavellianism believe that most people are so easily manipulated and deceived. In addition, these individuals are more effective at persuading others than those with low Machiavellianism. Furthermore, they cannot show good activity in working groups. Last but not least, they often cause team conflict and sometimes can lead to the disintegration of the team. According to the Wall Street Journal, individuals with high Machiavellianism act as morally superior and they are described as narcissistic, arrogant, manipulative, and goal-oriented. Besides, they do not trust anyone and seek cooperation (Williams, 2009: 452).

A number of studies have shown that individuals high in Machiavellianism are characterized by pragmatism, cynicism, amorality, and a belief in the utility of manipulating others to achieve personal goals. Such individuals show good activity in jobs, especially those that require negotiation skills or jobs that present them with important awards (Daft, 2008: 469-470).

Following this further, High Machiavellian individuals are ideologically neutral, have little emotional involvement in interpersonal relationships, and shift commitments when it is to their advantage to do so. In the light of the High Machiavellian individuals it is easy to see that they tend to win in situations involving emotional involvement more often than low Machiavellians because they have the ability to concentrate on winning, while low Machiavellians are easily distracted by affect. Most often, subordinates who possess the high Machiavellian trait are able to manipulate encounters with superiors so that they influence and control work situations for their own purposes. For instance, in a group interview, high Machiavellian individuals are more motivated to communicate for control and present various business-related information, and likewise can often

influence the group in the critical stages of the meeting as a result (Walter, Anderson and Martin, 2005: 59-60).

In the same way, individuals with high Machiavellian personality traits give high priority to competition, along with money and power compared to those with low Machiavellian personality traits. Conversely, High Machiavellians give relatively low priority to community building and family concerns (Leary and Hoyle, 2009: 94).

Clearly, then, high Machiavellians tend to disparage the motives of others and usually use sarcasm in order to express their dislike towards other people. Also, they actively turn uncertainty into their advantage, and as a consequence they exploit the sources to their advantage at a suitable opportunity (Graham, 1996: 68). One final point to remember is that people with high Machiavellian values believe that deceit is a natural and acceptable way to achieve personal goals. They seldom trust co-workers and tend to use cruder influence tactics (McShane and Von Glinow, 2010: 316).

4. Method

4.1. Sample

The study sample was made up of 370 students studying at Trakya University Faculty of Economics and Administrative Sciences. These students were majoring in Business Administration, Public Administration, Labor Economics and Industrial Relations. The data were collected from students who participated in the survey in fall 2011-2012, within one month. 380 questionnaires were distributed and 370 of them were returned. Namely, the rate of return was 97%.

4.2. Measures

The Mach IV scale has been developed by Christie and Geis for the detection of Machiavellianism (Lopes and Fletcher, 2004: 753). It should be noted that the first measurement tool of Machiavellianism has been developed by Christie and Geis. The Mach scale was used in more than five hundred psychology studies (Gunnthorsdottir, McCabe and Smith 2002: 53-54).

In this present study, we used Christie and Geis's Machiavellianism scale, which is a questionnaire, the so-called Mach IV. Besides, when using the Mach IV scale, a 5-point Likert-scale (formed by Alper Engeler) was implemented. The scale had a total of 20 questions. To score the Mach IV, questions 3, 4, 6, 7, 9, 10, 11, 14, 16, and 17 were reverse scored on a 5-point Likert-scale (Engeler and Yargic 2004). Scoring procedure was implemented and responses were on a 5-point Likert scale, ranging from 'Strongly Disagree = 1', 'Disagree = 2', 'Neutral = 3', 'I agree = 4' and 'Strongly Agree = 5'. Cronbach's Alpha value for Mach IV scale in our study was 0.57.

Factor analysis was applied to the data scale of Machiavellian personality. First of all, Question 17 and Question 20 were excluded from analysis due to the lack of a measure for the very concepts we aimed to measure. Later, as a result of the factor analysis, three factors emerged. Then, reliability analysis was conducted on these three factors. However, Cronbach's Alpha value (found

as a result of the reliability analysis) was lower than 0.50 for the 'Factor 3' and this dimension was removed from the analysis. Again, factor analysis was used. Two sub-dimensions emerged as a result of the repeated factor analysis. These sub dimensions were named according to the literature. That is, these two sub-dimensions were named as 'unethical behavior' and 'assuming other people are bad'.

4.3. Research Model

The main objective of this study was to investigate whether or not 370 students' demographic characteristics studying at Trakya University Faculty of Economics and Administrative Sciences influence their Machiavellian personality tendencies. In other words, the main objective of this study was to determine whether or not Machiavellian personality tendencies showed differences in participants' demographic characteristics. These characteristics were divided into six elements such as gender, department, longest place of residence in juvenescence (ages 6-18), number of siblings, father's educational status and mother's educational status. In this context, the following research model was established.

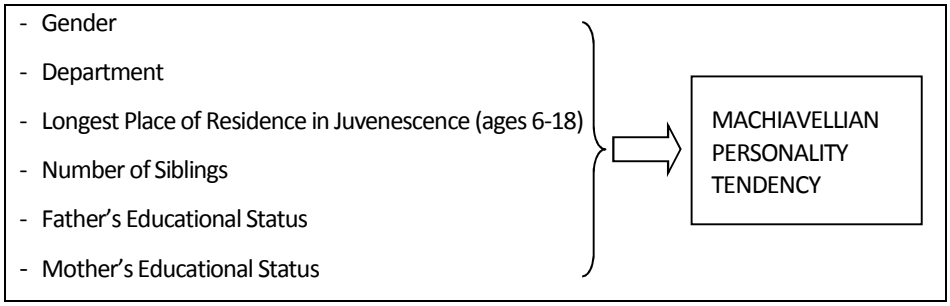

Figure 1. Research Model

The main hypotheses generated by the research model are as follows:

H_1 = Male and Female participants' judgments on the sub dimensions of the Machiavellian personality scale show difference.

H_2 = According to department, participants' judgments on the sub dimensions of the Machiavellian personality scale show difference.

H_3 = According to longest place of residence in juvenescence (ages 6-18), participants' judgments on the sub dimensions of the Machiavellian personality scale show difference.

H_4 = According to number of siblings, participants' judgments on the sub dimensions of the Machiavellian personality scale show difference.

H_5 = According to father's educational status, participants' judgments on the sub dimensions of the Machiavellian personality scale show difference.

H_6 = According to mother's educational status, participants' judgments on the sub dimensions of the Machiavellian personality scale show difference.

4.4. Data Analysis

In our research, data analysis was carried out using SPSS 15. In this context, first, frequency analysis was carried out in connection with the participants' demographic characteristics. Then factor analysis was applied to the data scale of Machiavellian personality tendencies. First of all, Question 17 and Question 20 were excluded from analysis due to the lack of a measure for the very concepts we aimed to measure. Later, as a result of the factor analysis, three dimensions emerged. In addition, reliability analyses were conducted on these three sub dimensions. As a result of reliability analysis, factor 3 dimension, in which Cronbach's Alpha value was lower than 0.50, was excluded from analysis and factor analysis was conducted again. Thus two sub-dimensions emerged as a result of the repeated factor analysis. These sub dimensions were named within the scope of the literature. That is, these two sub-dimensions were named as 'unethical behavior' and 'assuming other people are bad'.

Furthermore, the Kolmogorov-Smirnov normality test was performed. Nonparametric tests were applied to deciding that the data were not normally distributed. In this context, Mann-Whitney U and Kruskal-Wallis tests were conducted. The Mann-Whitney U test was performed to reveal the differences according to participants' gender on the dimensions of 'unethical behavior' and 'assuming other people are bad,' which are the sub dimensions of Machiavellian personality scale. Similarly, the Kruskal-Wallis tests were separately applied to reveal the differences according to participants' department, longest place of residence in juvenescence (ages 6-18), number of siblings, father's educational status and mother's educational status on the dimensions of 'unethical behavior' and 'assuming other people are bad,' which are the sub dimensions of Machiavellian personality scale.

Table 1: Characteristics of the Sample

Variable	*n*	*Per cent*
Gender		
Female	241	65.1
Male	129	34.9
Department		
Business Administration	162	43.8
Public Administration	65	17.6
Labour Economics and Industrial Relations	143	38.6
Longest Place of Residence in Juvenescence (ages 6-18)		
Village and Town	40	10.8
County	100	27.0
Province	74	20.0
Metropolis	156	42.2

Variable	*n*	*Per cent*
Number of Siblings		
One	21	5.7
Two	194	52.4
Three	98	26.5
Four and above	57	15.4
Father's Educational Status		
Illiterate and Primary-Middle School	179	48.4
High School	130	35.1
University	61	16.5
Mother's Educational Status		
Illiterate and Primary-Middle School	259	70
High School	94	25.4
University	17	4.6

4.5. Factor and Reliability Analysis

Factor analysis was applied to the data scale of Machiavellian personality, which was used in our research. Prior to that, for the purpose of evaluating whether the data set is suitable for factor analysis or not, KMO and Bartlett's test were applied. As can be seen in Table 2, the Kaiser-Meyer-Olkin (KMO) test result was 0,625. This value indicates that the data set is suitable for the factor analysis. As the Barlett's test p-value was 0,000 ($p<0,05$), so there was an adequate level of association between the variables to do a factor analysis.

Table 2. KMO and Barlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.625
Bartlett's Test of Sphericity	Approx. Chi-Square	611.834
	df	153
	Sig.	.000

Factor analysis was applied to data set. To put it another way, factor analysis was conducted to data scale of Mach IV that measures the Machiavellian personality tendencies. Question 17 and Question 20, as has been previously discussed, were eliminated from the analysis because they did not contribute to the content of our research and failed to meet a minimum criteria of representing the concepts we aimed at analyzing. Three sub-dimensions emerged as a result of factor analysis performed. Then, reliability analysis was conducted pertaining to the sub dimensions of the Machiavellian personality scale. Groups of questions that make up the sub-dimensions, factor weights, explanatory factors, and Cronbach's alpha values are presented below.

Factor weight should be 0.30 and above for the number of observations at 350 and above (Kalayci, 2010: 330). Cronbach's alpha value of 0.50 can sometimes be considered 'acceptable' in most social science research situations (Saruhan and Özdemirci, 2011: 171). Cronbach's Alpha value for Mach IV scale in our study was 0.57.

Table 3. Factor and Reliability Analysis Results

	Questions	*Factor Weigts*	*Explanatory Factors (%)*	*Cronbach's Alpha*
Factor 1	s9	0.674	11.810	0.61
	s10	0.670		
	s6	0.667		
	s7	0.607		
Factor 2	s3	0.374	10.441	0.53
	s14	0.678		
	s16	0.624		
	s11	0.583		
	s4	0.546		
Factor 3	s18	0.583	9.814	0.46
	s2	0.535		
	s15	0.525		
	s8	0.437		
	s13	0.405		
	s12	0.336		
	s1	0.334		
	s5	0.315		
	s19	0.310		

The factor weights found in our research were above 0.30. Table 3 represents the question groups that make up the sub-dimensions, factor weights, explanatory factors and Cronbach's alpha values. The dimension of 'Factor 3' was lower than Cronbach's Alpha value of 0.50 and pointed that this factor could not be used. For this reason, the sub dimension named as 'Factor 3' was excluded. Question 17 and Question 20 were irrelevant and excluded from analysis accordingly. In addition, the questions 18, 2, 15, 8, 13, 12, 1, 5, 19 at factor 3, were eliminated from analysis and factor analysis was conducted again.

Table 4. Repeated Factor and Reliability Analysis Results

	Questions	*Factor Weights*	*Explanatory Factors (%)*	*Cronbach's Alpha*
Unethical Behavior	s10	0.697	22.061	0.61
	s9	0.691		
	s6	0.680		
	s7	0.617		
Assuming Other People Are Bad	s3	0.405	19.085	0.53
	s14	0.709		
	s16	0.618		
	s11	0.606		
	s4	0.603		

As can be seen in Table 4, the two sub-dimensions have emerged as a result of the factor analysis repeated. The naming of these two sub-dimensions was performed regarding literature review. In this context, the first sub-dimension named as 'unethical behavior' and the second one as 'assuming other people are bad'.

4.6. Test for the Differences According to Participant's Demographic Characteristics on the Sub-Dimensions of Machiavellian Personality Scale

The Kolmogorov-Smirnov test was performed on behalf of having an idea about the distribution before we begin our data analysis. In this way, we have determined whether to perform the parametric tests on our data or not.

Table 5. Kolmogorov-Smirnov Test Results

		Unethical Behaviour	*Assuming Other People Are Bad*
n		370	370
Normal Parameters(a.b)	Mean	2.2741	3.5014
	Std. Deviation	0.74312	0.76598
Most Extreme Differences	Absolute	0.095	0.086
	Positive	0.095	0.063
	Negative	-0.044	-0.086
Kolmogorov-Smirnov Z		1.831	1.649
Asymp. Sig. (2-tailed)		0.002	0.009

H_0 = Sub-dimensions of the Machiavellian personality scale tend to show a normal distribution.

H_1 = Sub-dimensions of the Machiavellian personality scale tend not to show a normal distribution.

As shown in Table 5, H_0 hypothesis is rejected, when the p-value is less than the predetermined significance level which is often 0.05 (in our case $p<0.05$). This indicates that the sub-dimensions of the Machiavellian personality scale tend not to show a normal distribution. Therefore, parametric tests are not advisable to run in this case. Thus, non-parametric tests were applied. The Mann-Whitney U and Kruskal-Wallis non-parametric tests were used.

The Mann-Whitney U test was performed to reveal the differences according to participants' gender on the dimensions of 'unethical behavior' and 'assuming other people are bad,' which are the sub dimensions of Machiavellian personality scale.

Correspondingly, the Kruskal-Wallis tests were separately applied to demonstrate the differences according to participants' department, longest place of residence in juvenescence (ages 6-18), number of siblings, father's educational status and mother's educational status on the dimen-

sions of 'unethical behavior' and 'assuming other people are bad,' which are the sub dimensions of Machiavellian personality scale.

4.6.1. Test for the Differences According to Participant's Gender on the Sub-Dimensions of the Machiavellian Personality Scale

When assessing the differences according to participants' gender on the sub-dimensions of the Machiavellian personality scale, the Mann-Whitney U test was applied since the number of groups was two. In this context, the following hypotheses were formed.

H_0 = Male and Female participants' judgments on the sub dimensions of the Machiavellian personality scale show no difference.

H_1 = Male and Female participants' judgments on the sub dimensions of the Machiavellian personality scale show difference.

H_{1a} = Male and Female participants' judgments on the sub dimension 'unethical behavior' show difference.

H_{1b} = Male and Female participants' judgments on the sub dimension 'assuming other people are bad' show difference.

Table 6. The Descriptive Distributions of the Judgments on the Sub Dimensions of Machiavellian Personality Tendencies by Gender

	Gender	*n*	*Mean Rank*	*Sum of Ranks*
Unethical Behavior	Female	241	175.65	42331.00
	Male	129	203.91	26304.00
	Total	370		
Assuming Other People Are Bad	Female	241	181.34	43704.00
	Male	129	193.26	24931.00
	Total	370		

Table 7. Mann-Whitney U-test Results Relating to the Differences Between Judgments on the Sub Dimensions of Machiavellian Personality Tendencies by Gender

	Unethical Behavior	*Assuming Other People Are Bad*
Mann-Whitney U	13170.000	14543.000
Wilcoxon W	42331.000	43704.000
Z	-2.431	-1.027
Asymp. Sig. (2-tailed)	0.015	0.305

As shown in Table 7, the p-value is less than 0.05 ($p<0.05$) and the 1a Hypothesis is supported. As can be seen by consulting Table 6, female participants had a mean rank (175.65), which is lower than male participants' average rank (203.91). For this reason, it can be said that female participants are more sensitive to ethical issues than male participants. In other words, females attach

more importance to ethical behavior than males do. To put it another way, female participants, due to Unethical Behavior, show low Machiavellian tendencies compared to male participants.

As illustrated in Table 7, the 1b Hypothesis is rejected because of the p-value (p>0.05). That is, male and female participants' judgments on the sub dimension 'assuming other people are bad' show no differences.

4.6.2. Test for the Differences According to Participants' Department on the Sub-Dimensions of the Machiavellian Personality Scale

As regards the differences according to participants' department on the sub-dimensions of the Machiavellian personality scale, the Kruskal-Wallis test was used since the number of groups was more than two. In this context, the following hypotheses were formed.

H_0 = According to department, participants' judgments on the sub dimensions of the Machiavellian personality scale show no difference.

H_2 = According to department, participants' judgments on the sub dimensions of the Machiavellian personality scale show difference.

H_{2a} = According to department, participants' judgments on the sub dimension 'unethical behavior' show difference.

H_{2b} = According to department, participants' judgments on the sub dimension 'assuming other people are bad' show difference.

Table 8. The Descriptive Distributions of the Judgments on the Sub Dimensions of Machiavellian Personality Tendencies by Department

	Department	*n*	*Mean Rank*
Unethical Behavior	Business Administration	162	173.50
	Public Administration	65	210.52
	Labour Economics and Industrial Relations	143	187.72
	Total	370	
Assuming Other People Are Bad	Business Administration	162	181.22
	Public Administration	65	176.77
	Labour Economics and Industrial Relations	143	194.32
	Total	370	

As can be seen in Table 9, the 2a and 2b Hypotheses are rejected because of p-value (p>0.05). Thus, according to department, participants' judgments on the sub dimension 'unethical behavior' showed no difference. In addition, according to department, participants' judgments on the sub dimension 'assuming other people are bad' showed no difference either.

Table 9. Kruskal Wallis Test Results Relating to the Differences between Judgments on the Sub Dimensions of Machiavellian Personality Tendencies by Department

	Unethical Behavior	*Assuming Other People Are Bad*
Chi-Square	5.698	1.683
df	2	2
Asymp. Sig.	0.058	0.431

4.6.3. Test for the Differences According to Participants' Longest Place of Residence in Juvenescence (Ages 6-18) on the Sub-Dimensions of the Machiavellian Personality Scale

When assessing the differences according to participants' longest place of residence in juvenescence (ages 6-18) on the sub-dimensions of the Machiavellian personality scale, the Kruskal-Wallis test was used since the number of groups was more than two. In this context, the following hypotheses were formed.

H_0 = According to longest place of residence in juvenescence (ages 6-18), participants' judgments on the sub dimensions of the Machiavellian personality scale show no difference.

H_3 = According to longest place of residence in juvenescence (ages 6-18), participants' judgments on the sub dimensions of the Machiavellian personality scale show difference.

H_{3a}= According to longest place of residence in juvenescence (ages 6-18), participants' judgments on the sub dimension 'unethical behavior' show difference.

H_{3b} = According to longest place of residence in juvenescence (ages 6-18), participants' judgments on the sub dimension 'assuming other people are bad' show difference.

Table 10. The descriptive Distributions of the Judgments on the Sub Dimensions of the Machiavellian Personality Tendencies by Longest Place of Residence in Juvenescence (Ages 6-18)

	Longest Place of Residence in Juvenescence	*n*	*Mean Rank*
Unethical Behavior	Village and Town	40	186.35
	County	100	187.01
	Province	74	185.11
	Metropolis	156	184.50
	Total	370	
Assuming Other People Are Bad	Village and Town	40	169.85
	County	100	176.49
	Province	74	190.89
	Metropolis	156	192.73
	Total	370	

Table 11. Kruskal Wallis Test Results Relating to the Differences between Judgments on the Sub Dimensions of Machiavellian Personality Tendencies by Longest Place of Residence in Juvenescence (ages 6-18)

	Unethical Behavior	*Assuming Other People Are Bad*
Chi-Square	0.037	2.494
df	3	3
Asymp. Sig.	0.998	0.476

As illustrated in Table 11, the 3a and 3b Hypotheses are rejected because of p-value (p>0.05).

4.6.4. Test for the Differences According to Participant's Number of Siblings on the Sub-Dimensions of the Machiavellian Personality Scale

When assessing the differences according to participants' number of siblings on the sub-dimensions of the Machiavellian personality scale, the Kruskal-Wallis test was used since the number of groups was more than two. In this context, the following hypotheses were formed.

H_0 = According to number of siblings, participants' judgments on the sub dimensions of the Machiavellian personality scale show no difference.

H_4 = According to number of siblings, participants' judgments on the sub dimensions of the Machiavellian personality scale show difference.

H_{4a}= According to number of siblings, participants' judgments on the sub dimension 'unethical behavior' show difference.

H_{4b} = According to number of siblings, participants' judgments on the sub dimension 'assuming other people are bad' show difference.

Table 12. The Descriptive Distributions of the Judgments on the Sub Dimensions of Machiavellian Personality Tendencies by Number of Siblings

	Number of Siblings	*n*	*Mean Rank*
Unethical Behavior	1	21	190.74
	2	194	182.95
	3	98	187.52
	4 and above	57	188.77
	Total	370	
Assuming Other People Are Bad	1	21	181.36
	2	194	186.68
	3	98	184.01
	4 and above	57	185.59
	Total	370	

Table 13. Kruskal Wallis Test Results Relating to the Differences between Judgments on the Sub Dimensions of Machiavellian Personality Tendencies by Number of Siblings

	Unethical Behavior	*Assuming Other People Are Bad*
Chi-Square	0.251	0.075
df	3	3
Asymp. Sig.	0.969	0.995

As can be seen in Table 13, the 4a and 4b Hypotheses are rejected because of p-value ($p>0.05$).

4.6.5. Test for the Differences According to Father's Educational Status on the Sub-Dimensions of the Machiavellian Personality Scale

As regards the differences according to father's educational status on the sub-dimensions of the Machiavellian personality scale, the Kruskal-Wallis test was used since the number of groups was more than two. In this context, the following hypotheses were formed.

H_0 = According to father's educational status, participants' judgments on the sub dimensions of the Machiavellian personality scale show no difference.

H_5 = According to father's educational status, participants' judgments on the sub dimensions of the Machiavellian personality scale show difference.

H_{5a} = According to father's educational status, participants' judgments on the sub dimension 'unethical behavior' show difference.

H_{5b} = According to father's educational status, participants' judgments on the sub dimension 'assuming other people are bad' show difference.

Table 14. The Descriptive Distributions of the Judgments on the Sub Dimensions of Machiavellian Personality Tendencies by Father's Educational Status

	Father's Educational Status	*n*	*Mean Rank*
Unethical Behavior	Illiterate and Primary-Middle School	179	188.94
	High School	130	179.98
	University	61	187.17
	Total	370	
Assuming Other People Are Bad	Illiterate and Primary-Middle School	179	182.65
	High School	130	184.01
	University	61	197.05
	Total	370	

Table 15. Kruskal Wallis Test Results Relating to the Differences between Judgments on the Sub Dimensions of Machiavellian Personality Tendencies by Father's Educational Status

	Unethical Behavior	*Assuming Other People Are Bad*
Chi-Square	0.549	0.873
df	2	2
Asymp. Sig.	0.760	0.646

As detailed in Table 15, the 5a and 5b Hypotheses are rejected because of p-value (p>0.05).

4.6.6. Test for the Differences According to Mother's Educational Status on the Sub-Dimensions of the Machiavellian Personality Scale

When assessing the differences according to mother's educational status on the sub-dimensions of the Machiavellian personality scale, the Kruskal-Wallis test was used since the number of groups was more than two. In this context, the following hypotheses were formed.

H_0 = According to mother's educational status, participants' judgments on the sub dimensions of the Machiavellian personality scale show no difference.

H_6 = According to mother's educational status, participants' judgments on the sub dimensions of the Machiavellian personality scale show difference.

H_{6a} = According to mother's educational status, participants' judgments on the sub dimension 'unethical behavior' show difference.

H_{6b} = According to mother's educational status, participants' judgments on the sub dimension 'assuming other people are bad' show difference.

Table 16. The Descriptive Distributions of the Judgments on the Sub Dimensions of Machiavellian Personality Tendencies by Mother's Educational Status

	Mother's Educational Status	*n*	*Mean Rank*
Unethical Behavior	Illiterate and Primary-Middle School	259	184.33
	High School	94	191.46
	University	17	170.41
	Total	370	
Assuming Other People Are Bad	Illiterate and Primary-Middle School	259	184.68
	High School	94	184.15
	University	17	205.47
	Total	370	

Table 17. Kruskal Wallis Test Results Relating to the Differences between Judgments on the Sub Dimensions of Machiavellian Personality Tendencies by Mother's Educational Status

	Unethical Behavior	*Assuming Other People Are Bad*
Chi-Square	0.666	0.629
df	2	2
Asymp. Sig.	0.717	0.730

As shown in Table 17, the 6a and 6b Hypotheses are rejected because of p-value (p>0.05).

5. Discussion and Result

In this present research, the Mann-Whitney U and Kruskal-Wallis tests were conducted to explore the differences in participants' gender, department, longest place of residence in juvenescence (ages 6-18), number of siblings, father's educational status and mother's educational status relating to the dimensions of 'unethical behavior' and 'assuming other people are bad,' which are the sub dimensions of Machiavellian personality scale. In this context, hypothesis tests were conducted. Thus, the 1a Hypothesis was supported as a result. Other hypotheses were rejected.

The Mann-Whitney U test was performed to reveal the differences according to participants' gender on the dimensions of 'unethical behavior' and 'assuming other people are bad,' which are the sub dimensions of Machiavellian personality scale. As a result, it was seen that female participants were more sensitive to ethical issues than male participants. That is, it could be said that female participants placed more importance to ethical behaviors than males did. To put it another way, female participants, due to Unethical Behavior, exhibited low Machiavellian tendencies compared to male participants. As a result, the findings emerged from the current study are similar to the findings obtained from a series of research. Wilson, Near and Miller (1996) emphasized that women generally have low Machiavellian tendencies compared to men. Correspondingly, Pope (2005) in his study conducted among Accountancy students (with 68 participant total) found that females were less Machiavellian than males. Following this further, findings in another study conducted by Austin, Farrelly, Black and Moore (2007), reported that men performed high scores on the Mach IV scale compared to female counterparts.

To be sure, the Kruskal-Wallis tests were separately applied to reveal the differences according to participants' department, longest place of residence in juvenescence (ages 6-18), number of siblings, father's educational status and mother's educational status on the dimensions of 'unethical behavior' and 'assuming other people are bad,' which are the sub dimensions of Machiavellian personality scale. As a result of these Kruskal-Wallis tests, we have not found significant differences.

References

Ali, F., Amorim, I.S. & Chamorro-Premuzic, T. (2009). Empathy deficits and trait emotional intelligence in psychopathy and Machiavellianism. *Personality and Individual Differences*, 47, 758-762.

Austin, E.J., Farrelly, D., Black, C. & Moore, H. (2007). Emotional intelligence, Machiavellianism and emotional manipulation: does EI have a dark side?. *Personality and Individual Differences*, 43, 179-189.

Boddy, C.R. (2011). *Corporate Psychopaths: Organizational Destroyers.* UK: Palgrave Macmillan.

Cameron, K.S. & Spreitzer, G.M. (2012). *The Oxford Handbook of Positive Organizational Scholarship.* New York: Oxford University Press.

Corral, S. & Calvete, E. (2000). Machiavellianism: Dimensionality of the Mach IV and its Relation to Self-Monitoring in a Spanish Sample. *The Spanish Journal of Psychology,* 3(1), 3-13.

Daft, R.L. (2008). *Management.* Eighth Edition. USA: Thomson South-Western.

Engeler, A. & Yargıç, İ. (2004). *Makyavellinizm (MACH-IV) Ölçeğinin Türkçe Uyarlamasının Güvenilirliği.* The Psychiatric Association of Turkey, 40. National Congress, Izmir, Turkey.

Goethals, G.R., Sorenson, G.J. & Burns, J. M. (2004). *Encyclopedia of Leadership.* Volume III, USA: Sage Publications.

Graham, J.H. (1996). Machiavellian project managers: do they perform better?. *International Journal of Project Management,* 14(2), 67-74.

Gunnthorsdottir, A., McCabe, K. & Smith,V. (2002). Using the Machiavellianism instrument to predict trustworthiness in a bargaining game. *Journal of Economic Psychology,* 23, 49-66.

Kalaycı, Ş. (2010). *SPSS Uygulamalı Çok Değişkenli İstatistik Teknikleri.* 5. Baskı. Ankara: Asil Yayın Dağıtım.

Kolb, R.W. (2008). *Encyclopedia of Business Ethics and Society.* Volume 3. USA: Sage Publications.

Leary, M.R. & Hoyle, R.H. (2009). *Handbook of Individual Differences In Social Behavior.* USA: The Guilford Press.

Lopes, J. & Fletcher, C. (2004). Fairness of Impression Management in Employment Interviews: A Cross-Country Study of the Role of Equity and Machiavellianism. *Social Behavior and Personality,* 32(8), 747-768.

McGuire, D. & Hutchings, K. (2006). A Machiavellian analysis of organisational change. *Journal of Organizational Change.* 19(2), 192-209.

McShane, S.L. & Von Glinow, M.A. (2010). *Organizational Behavior: emerging knowledge and practice for the real world.* Fifth Edition. USA: McGraw-Hill Irwin.

Paulhus, D.L. & Williams, K.M. (2002). The Dark Triad of Personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality,* 36, 556-563.

Pope, K.R. (2005). Measuring the Ethical Propensities of Accounting Students: Mach IV Versus DIT. *Journal of Academic Ethics,* 3, 89-111.

Rayburn, J.M. & Rayburn, L.G. (1996). Relationship Between Machiavellianism and Type A Personality and Ethical-Orientation. *Journal of Business Ethics,* 15, 1209-1219.

Robbins, S.P. & Coulter, M. (2012). *Management.* Eleventh Edition. New Jersey: Prentice Hall.

Saruhan, Ş.C. ve Özdemirci, A. (2011). *Bilim, Felsefe ve Metodoloji.* 2. Baskı. İstanbul: Beta Yayınevi.

Schermerhorn, J.R. (2010). *Exploring Management.* Second Edition. USA: John Wiley & Sons.

Sinha, J.B.P. (2008). *Culture and Organizational Behaviour.* New Delhi: Sage Publications.

Vigoda-Gadot, E. & Drory, A. (2006). *Handbook of Organizational Politics,* Great Britain: Edward Elgar Publishing.

Walter, H.L, Anderson, C.M. & Martin, M.M. (2005). How Subordinates' Machiavellianism and Motives Relate to Satisfaction with Superiors. *Communication Quarterly,* 53(1), 57-70.

Williams, C. (2009). *Management.* Fifth Edition. Canada: South-Western Cengage Learning.

Wilson, D.S., Near, D. & Miller, R.R. (1996). Machiavellianism: A Synthesis of the Evolutionary and Psychological Literatures. *Psychological Bulletin,* 119(2), 285-299.