

A RESEARCH ABOUT MEASURING ETHICAL TENDENCIES BY MACHIAVELLIANISM AND DISCUSSING ITS IMPACT ON ETHICAL CHOICES IN ACCOUNTING AND AUDITING FIELD

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ABSTRACT

The corporate scandals such as Enron and Worldcom emphasized the importance of ethics and led the researchers to investigate ethical behavior, ethical decision making and ethical tendency in accounting and auditing field.

One of the methodologies used in determining ethical tendency is Machiavellianism. The purpose of this study is to measure Machiavellian tendencies of Business Administration and Public Finance students by using Machiavellianism scale and to investigate whether there is a significant difference between students' Machiavellianism according to some demographic and ethical tendency variables. Machiavellianism scale which has four dimensions of distrust of others, amoral manipulation, desire for control and desire for status, is developed by Dahling, Whitaker and Levy (2009) and adapted to Turkish by Üllbeği (2016). The results of the analyses are shown in tables and the relation of Machiavellianism and its impact on ethical choices in accounting and auditing profession is discussed. According to the results of analyses, students have the highest score on 'Desire for status' followed by 'Desire for control' and 'Distrust of others' and have the lowest score on 'Amoral manipulation'.

Keywords : Machiavellianism, Ethical Tendency, Accounting, Auditing, Ethical Decision Making.

INTRODUCTION

The corporate scandals such as Enron and Worldcom emphasized the importance of ethics and led the researchers to investigate ethical behavior, ethical decision making and ethical tendency in accounting and auditing field.

Acting ethically plays a significant role for businesses to provide public trust and social responsibility. Internal environment of the businesses should also be considered in terms of ethical tendencies and ethical decision making levels. One of the methodologies used in determining ethical tendency is Machiavellianism (Mach).

Machiavellianism "describes an individual that has an immoral reputation for dealing with others to accomplish his/her own objectives, and for manipulating others for his/her own purpose" (Rayburn and Rayburn, 1996, p. 1209-cited from Christie and Geis, 1970). It is a term created by the writings of Niccolo Machiavelli in the sixteenth century that is used to describe "the tendency to cheat and mislead others in order to achieve personal interests and associated with violating the rights of others" (Roodpooshti, Nikoomaram and Mahfoozi, 2012, p. 10576). Machiavellian is "a negative character trait that includes manipulation, cunning, duplicity and bad faith" (Wakefield, 2008, p. 115) and Machiavellian trait influences career choice and behavior in the workplace.

The Machiavellianism scale (Mach IV), a 20-item Likert scale, was developed and constructed by Christie and Geis, 1970 (cited by Pope, 2005; Shome and Rao, 2009; Kara, 2016; Elias, 2015) and had been widely used to measure propensities of individual toward Machiavellian type behavior and based on 16th century teachings of Niccolo Machiavelli. Machiavellianism was expressed as "a set of behaviors characterized by emotional detachment, lack of conventional morality and the tendency manipulate people and situations"; people were categorized into two categories as high Machs vs. low Machs, with respect to their construction (Shome and Rao, 2009, p. 365-cited from Christie and Geis, 1970).

High Mach individuals maintain emotional distances, tend to be aggressive, manipulative and may try deceptive actions to reach personal or organization objectives and believe that most people can be easily deceived (Ayan, Ünsar and Kahraman, 2013, p. 106). They may economically opportunistic, not satisfied with their work and may not be thoughtful of others if they are in a position of leadership (Dahling, Whitaker and Levy, 2009, p. 223).

Low Machs may accept to be managed immediately, have ability to put themselves imaginatively in another's place, be warm, be sensitive, tend to team work and be strong in ethical attitudes (Solmaz and Uçma, 2010, p. 96).

Mach IV had problems as indeterminate factor structure and poor reliability (Miller, Smart and Rechner, 2015, p. 120). Dahling et al.(2009) developed Machiavellianism Personality Scale (MPS), a 16 statements scale which demonstrated good reliability ($\alpha=.82$) with 4 factors: Distrust of Others, Amoral Manipulation, Desire for Control, and Desire for Status (Dahling et al., 2009, p. 227, 228, 236; Miller et al., 2015, p. 120).

The remainder of the paper is organized as follows: first, a review of studies about Machiavellianism is presented. Next section presents the methodology and findings. The last section presents conclusion.

LITERATURE REVIEW

Pope (2005) investigated alternative psychometric instruments to measure ethical propensities among accounting students, especially whether the Mach IV scale was a better instrument in comparison to traditional ethics measures. Results show that high Mach accountants were “more likely to view questionable behavior as acceptable” (p.101).

Wakefield (2008) examined the relationship between Machiavellian trait and some of the demographic characteristics, job satisfaction, career satisfaction and ethical ideology of accountants. Accountants were less Machiavellian than other groups in previous studies. Accountants higher in the Mach trait were less satisfied with accounting as a career.

Shome and Rao (2009) determined the orientation of Canadian auditors with respect to Machiavellianism. Results showed that there were no significant differences between Machiavellianism of partners and managers, but lower position auditors were significantly more Machiavellian than higher position auditors.

Solmaz and Uçma (2010) analyzed the relationship between Machiavellianism tendencies and ethical perceptions of private and public bank employees. Result showed that Machiavellianism tendencies and ethical perceptions are positively related.

Roodpooshti et al. (2012) investigated the extent of Machiavellian trait amongst Iranian accountants by using Mach IV and also examined the relation between job satisfaction and Machiavellianism.

Results showed that the extent of Machiavellianism of Iranian accountants is low and there was a significant relationship between Machiavellianism and job satisfaction. The accountants who were dissatisfied with their jobs had a high

Machiavellianism level, while the accountants who were satisfied with their jobs had a low Machiavellianism level.

Ayan et al. (2013) investigated the influence of some demographic variables of Economic and Administrative Sciences students on Machiavellian personality tendencies.

According to the results, Unethical Behavior sub-dimension of Machiavellian personality tendencies showed differences according to gender which meant that girls were more ethical than men because they demonstrated lower levels of Unethical Behavior than men students.

Elias (2015) investigated whether Machiavellianism was related to cheating perceptions of the business students by using Machiavellianism Personality Scale (MPS) developed by Dahling et al. (2009).

Results showed that cheating perception was related to Machiavellianism; high Mach students viewed questionable cheating actions as less unethical. The score of desire for status was higher and the score of desire for control was slightly high. Female students viewed questionable actions more unethical than males.

Kara (2016) determined the effects of Machiavelist values on students who aimed to be managers. The results showed that Machiavelist values had a middle effect on students and they didn't show any statistically significant differences according to gender.

Aydoğan and Serbest (2016) investigated the relationship between Dark Triad personality traits (narcissism, Machiavellianism and psychopathy) and demographic characteristics of internal auditors. According to the results, Machiavellianism level didn't differ according to the demographic variables. There were differences between narcissism and age, marital status and duration of work; and differences between psychopathy and marital status.

Sungur (2017) determined the machiavellianist tendencies of the university students continuing their education in field of political sciences by using Machiavellianism Scale developed by Dahling et al. (2009).

According to the results, difference between the total score averages of the devoid of ethics, wish to have status, distrust in others, wish to control is statistically significant in terms of gender; the total score averages of males are higher than females.

METHODOLOGY

Purpose and Problems of Research

The purpose of this research is to measure Machiavellian tendencies of Business Administration and Public Finance students by using Machiavellianism scale and to investigate whether there is a significant difference between students' Machiavellianism according to some demographic and ethical tendency variables. The research problems are expressed as follows:

- Is there significant difference between students' Machiavellianism according to some demographic variables?
- Is there significant difference between students' Machiavellianism according to some ethical tendency variables?

Hypotheses of Research

Depending on the purpose and problems of the research, the hypotheses of research are developed as follows:

H1: There is significant difference between amoral manipulation of students according to their gender.

H2: There is significant difference between distrust of others of students according to their gender.

H3: There is significant difference between desire for status of students according to their gender.

H4: There is significant difference between desire for control of students according to their gender.

H5: There is significant difference between amoral manipulation of students according to their major.

H6: There is significant difference between distrust of others of students according to their major.

H7: There is significant difference between desire for status of students according to their major.

H8: There is significant difference between desire for control of students according to their major.

H9: There is significant difference between amoral manipulation of students according to their participation in a course or seminar on ethics.

H10: There is significant difference between distrust of others of students according to their participation in a course or seminar on ethics.

H11: There is significant difference between desire for status of students according to their participation in a course or seminar on ethics.

H12: There is significant difference between desire for control of students according to their participation in a course or seminar on ethics.

H13: There is significant difference between amoral manipulation of students according to telling the teacher about their friend cheated in the exam.

H14: There is significant difference between distrust of others of students according to telling the teacher about their friend cheated in the exam.

H15: There is significant difference between desire for status of students according to telling the teacher about their friend cheated in the exam.

H16: There is significant difference between desire for control of students according to telling the teacher about their friend cheated in the exam.

H17: There is significant difference between amoral manipulation of students according to discussing subject of ethics in courses.

H18: There is significant difference between distrust of others of students according to discussing subject of ethics in courses.

H19: There is significant difference between desire for status of students according to discussing subject of ethics in courses.

H20: There is significant difference between desire for control of students according to discussing subject of ethics in courses.

H21: There is significant difference between amoral manipulation of students according to their grade point average.

H22: There is significant difference between distrust of others of students according to their grade point average.

H23: There is significant difference between desire for status of students according to their grade point average.

H24: There is significant difference between desire for control of students according to their grade point average.

H25: There is significant difference between amoral manipulation of students according to request to work in the audit area in the future.

H26: There is significant difference between distrust of others of students according to request to work in the audit area in the future.

H27: There is significant difference between desire for status of students according to request to work in the audit area in the future.

H28: There is significant difference between desire for control of students according to request to work in the audit area in the future.

H29: There is significant difference between amoral manipulation of students according to request to choose accounting profession in the future.

H30: There is significant difference between distrust of others of students according to request to choose accounting profession in the future.

H31: There is significant difference between desire for status of students according to request to choose accounting profession in the future.

H32: There is significant difference between desire for control of students according to request to choose accounting profession in the future.

Sample of Research

The sample of the research comprised of Business Administration and Public Finance final year undergraduate students at Akdeniz University. The reason to choose final year is that the students take "Accounting Audit" course where "Ethics" is included in the topics in their last year of undergraduate education. The number of Business Administration final year undergraduate students is 202 and the number of Public Finance final year undergraduate students is 189. Data collection method is non-random sampling.

Surveys were distributed to students during class time. The sample comprised of 116 Business Administration students and 110 Public Finance students for a total sample size of 226 students (Rate of return is 58%).

Research Instrument

In this research, Machiavellianism scale developed by Dahling et al. (2009) and adapted to Turkish by Ülbeği (2016) was used as research instrument. Machiavellianism scale has four dimensions of distrust of others, amoral manipulation, desire for control and desire for status (Dahling et al., 2009).

These dimensions can be explained as follows (Dahling et al., 2009): “Distrust of others” can be explained as a cynical view of the motivations and intentions of others, with concerns about the negative effects these intentions have on the person.

“Amoral Manipulation” can be explained as the desire to ignore moral standards and see value in behaviors that benefit one's self at the expense of others. “Desire for Control” can be explained as a need to use dominance over interpersonal situations to minimize others' degree of power. “Desire for Status” can be explained as a desire to bring together external success indicators.

In this research, the questions on the scale were asked in the form of five likert as “from strongly disagree (1) to strongly agree (5)”. The scale has no reversed-scored item.

Data Analysis

In this research, one way-ANOVA and independent samples t-test were used to investigate whether there is a significant difference between students' Machiavellianism according to some demographic and ethical tendency variables.

FINDINGS OF RESEARCH

Findings of Validity and Reliability

An exploratory factor analysis was conducted to examine the construct validity of the Machiavellian scale. Principal components analysis was used as a factorization method and Varimax was used as a rotation method.

It has been determined that Machiavellianism scale has four dimensions of distrust of others, amoral manipulation, desire for control and desire for status, such as the original one (Two statements from amoral manipulation dimension and one statement from Distrust of others had to be extracted for the reliability in this study).

Cronbach's alphas (α) of dimensions of amoral manipulation, distrust of others, desire for control and desire for status were 0,843, 0,712, 0,748 and 0,742, respectively. Findings of validity and reliability are presented in Table 1.

Table 1: Findings of validity and reliability

<i>Dimension Name</i>	<i>Statement</i>	<i>Factor Loading</i>	<i>Variance Explained (%)</i>	<i>Reliability ()</i>
AMORAL MANIPULATION	I believe that lying is necessary to maintain a competitive advantage over others..	0.833	19.557	0.843
	I would cheat if there was a low chance of getting caught.	0.822		
	I am willing to sabotage the efforts of other people if they threaten my own goals	0.818		
DISTRUST OF OTHERS	Other people are always planning ways to take advantage of the situation at my expense.	0.762	17.191	0.712
	I dislike committing to groups because I don't trust others.	0.742		
	If I show any weakness at work, other people will take advantage of it.	0.668		
	Team members backstab each other all the time to get ahead.	0.629		
DESIRE FOR STATUS	Accumulating wealth is an important goal for me.	0.834	16.036	0.742
	I want to be rich and powerful someday.	0.814		
	Status is a good sign of success in life.	0.722		
DESIRE FOR CONTROL	I enjoy being able to control the situation.	0.875	15.258	0.748
	I enjoy having control over other people.	0.837		
	I like to give the orders in interpersonal situations.	0.570		
KMO Value = 0.760		Total	68.042	
Bartlett's Test Of Sphericity	Chi-Square = 1100.665			
	df = 78			
	p value = 0.000			

Findings of Demographic and Ethical Tendency Variables

Demographic and ethical tendency characteristics of the student sample are presented in Table 2. Accordingly, 56.2% of students are male, 51.2% of students are business administration major, 42.0% of students have 2.50-2.99 grade point average and 67.3% of students took 'Accounting Audit' course. 54.9% of students

did not participate in a course or seminar on ethics, 51.8% of students discussed subject of ethics in courses, 87.6% of students would not tell their teacher about their friend who cheated in the exam. 62.4% of students have also a request to work in the audit area in the future, 47.8% of students have a request to choose accounting profession in the future, 66.8% of students cheated in exam and 76.1% of students would take the exam questions before exam if they would have a chance.

Table 2: Findings of demographic and ethical tendency characteristics

<i>Variable</i>	<i>Demographic Characteristic</i>	<i>Freq.</i>	<i>Perc. (%)</i>	<i>Variable</i>	<i>Ethical Tendency Char.</i>	<i>Freq.</i>	<i>Perc. (%)</i>
Gender	Female	99	43.8	Participation in a course or seminar on ethics?	Yes	102	45.1
	Male	127	56.2		No	124	54.9
Major	Business Administ.	116	51.3	Telling the teacher about the friend who cheated in the exam?	Yes	28	12.4
	Public Finance	110	48.7		No	198	87.6
Grade Point Average	< 2.00	16	7.1	Discussing subject of ethics in courses?	Yes	117	51.8
	2.00-2.49	70	31.0		No	109	48.2
	2.50-2.99	95	42.0	Request to work in the audit area in the future?	Yes	141	62.4
	3.00 and over	45	19.9		No	85	37.6
Taking Accounting Audit Course	Yes	152	67.3	Request to choose accounting profession in the future?	Yes	108	47.8
	No	74	32.7		No	118	52.2
				Ever cheated in Exam	Yes	151	66.8
					No	75	33.2
				Would take the exam questions before exam if has a chance	Yes	172	76.1
					No	54	23.9

Findings of Machiavellianism

Descriptive statistics of Machiavellianism dimensions are presented in Table 3. Students have the highest score on desire for status (mean 3.71), followed by desire for control (mean 3.25) and distrust of others (mean 2.81). Students have the lowest score on amoral manipulation (mean 2.39). Also in Elias (2015)'s study the score of 'Desire for status' was higher and the score of 'Desire for control' was slightly high.

Table 3: Descriptive statistics of Machiavellianism dimensions

<i>Dimension</i>	<i>n</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Skewness</i>	<i>Kurtosis</i>	<i>Minimum</i>	<i>Maximum</i>
Amoral manipulation	226	2.39	1.23	0.55	-0.94	1	5
Distrust of others	226	2.81	0.92	0.06	-0.55	1	5
Desire for status	226	3.71	1.00	-0.55	-0.32	1	5
Desire for control	226	3.25	1.05	-0.11	-0.68	1	5

In order to apply parametric analysis techniques, data must conform to normal distribution (Ak, 2010). If the coefficients of skewness and kurtosis remain between +1.00 and -1.00, it is evidence that the distribution does not deviate excessively from the normal distribution (Çokluk, Şekercioğlu and Büyüköztürk, 2016).

In this study, one-way ANOVA and independent samples t-test from parametric analysis techniques were used because skewness and kurtosis coefficients calculated for all variables are between +1.00 and -1.00 (skewness and kurtosis coefficients of amoral manipulation are 0.55 and -0.94, skewness and kurtosis coefficients of distrust of others are 0.06 and -0.55, skewness and kurtosis coefficients of desire for status are -0.55 and -0.32, skewness and kurtosis coefficients of desire for control are -0.11 and -0.68).

Table 4: Independent samples t-test findings of Machiavellianism dimensions by gender

<i>Dimension</i>	<i>Gender</i>	<i>n</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>t</i>	<i>p</i>
Amoral manipulation	Female	99	2.16	1.24	-2.555	0.011*
	Male	127	2.58	1.20		
Distrust of others	Female	99	2.67	1.00	-2.056	0.041*
	Male	127	2.93	0.85		
Desire for status	Female	99	3.71	1.01	-0.078	0.938
	Male	127	3.72	1.00		
Desire for control	Female	99	3.17	1.13	-0.936	0.350
	Male	127	3.30	0.97		

*: p < 0.05

As shown in Table 4, there was no significant difference for dimensions of desire for status and desire for control (respectively p=0.938 and p=0.350) in terms of gender variable but there was a significant difference for dimension of amoral manipulation and distrust of others (respectively p=0.011 and p=0.041) in terms of gender variable. Accordingly, amoral manipulation of male students (mean=2.58) is higher than female students (mean=2.16) and distrust of others of male students (mean=2.93) is higher than female students (mean=2.67). H1 and H2 were therefore supported but H3 and H4 were rejected. Also in Sungur (2017)'s study the total score averages of males were higher than females In Ayan et al. (2013)'s study which used Mach IV scale, girls were more ethical than men because they demonstrated lower levels of Unethical Behavior sub-dimension than men students. In Elias (2015)'s study, female students viewed questionable actions more unethical than males

Table 5: Independent samples t-test findings of Machiavellianism dimensions by major

<i>Dimension</i>	<i>Major</i>	<i>n</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>t</i>	<i>p</i>
Amoral manipulation	Business Administ.	116	2.45	1.20	0.678	0.498
	Public Finance	110	2.33	1.26		
Distrust of others	Business Administ.	116	2.78	0.86	-0.584	0.560
	Public Finance	110	2.85	0.99		
Desire for status	Business Administ.	116	3.83	0.94	1.751	0.081
	Public Finance	110	3.60	1.05		
Desire for control	Business Administ.	116	3.42	0.99	2.637	0.009*
	Public Finance	110	3.06	1.08		

* : $p < 0.05$

As shown in Table 5, there was no significant difference for dimensions of amoral manipulation, distrust of others and desire for status (respectively $p=0.498$, $p=0.560$ and $p=0.081$) in terms of major variable but there was a significant difference for dimension of desire for control ($p=0.009$) in terms of major variable. Accordingly, desire for control of business administration students (mean=3.42) is higher than public finance students (mean=3.06). H8 was therefore supported but H5, H6 and H7 were rejected.

Table 6 : Independent samples t-test findings of machiavellianism dimensions by Participation in a course or seminar on ethics

<i>Dimension</i>	<i>Participation in a course or seminar on ethics?</i>	<i>n</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>t</i>	<i>p</i>
Amoral manipulation	Yes	102	2.47	1.25	0.850	0.396
	No	124	2.33	1.22		
Distrust of others	Yes	102	2.94	0.97	1.902	0.058
	No	124	2.71	0.88		
Desire for status	Yes	102	3.87	0.92	2.087	0.038*
	No	124	3.59	1.05		
Desire for control	Yes	102	3.32	1.08	0.943	0.347
	No	124	3.19	1.02		

* : $p < 0.05$

As shown in Table 6, there was no significant difference for dimensions of amoral manipulation, distrust of others and desire for control (respectively $p=0.396$, $p=0.058$ and $p=0.347$) regarding participation in a course or seminar on ethics but there was a significant difference for dimension of desire for status ($p=0.038$) regarding participation in a course or seminar on ethics.

Accordingly, desire for status of students, who participated in a course or seminar on ethics, (mean=3.87) is higher than students, who did not participate in a course or seminar (mean=3.59). H11 was therefore supported but H9, H10 and H12 were rejected.

Table 7: Independent samples t-test findings of machiavellianism dimensions by telling the teacher about the friend cheated in the exam

<i>Dimension</i>	<i>Telling the teacher about the friend cheated in the exam?</i>	<i>n</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>t</i>	<i>p</i>
Amoral manipulation	Yes	28	2.84	1.31	2.066	0.040*
	No	198	2.33	1.21		
Distrust of others	Yes	28	3.38	0.83	3.519	0.001*
	No	198	2.73	0.91		
Desire for status	Yes	28	3.76	0.86	0.236	0.813
	No	198	3.71	1.02		
Desire for control	Yes	28	3.33	1.11	0.443	0.658
	No	198	3.23	1.04		

* : p < 0.05

As shown in Table 7, there was no significant difference for dimensions of desire for status and desire for control (respectively p=0.813 and p=0.658) regarding telling the teacher about the friend cheated in the exam but there was a significant difference for dimensions of amoral manipulation and distrust of others (respectively p=0.040 and p=0.001) regarding telling the teacher about the friend cheated in the exam. Accordingly, amoral manipulation of students, who told their teacher about their friend cheated in the exam, (mean=2.84) is higher than students, who did not tell their teacher about their friend cheated in the exam (mean=2.33) and distrust of others of students, who told their teacher, (mean=3.38) is higher than students, who did not tell their teacher (mean=2.73). H13 and H14 were therefore supported but H15 and H16 were rejected.

Table 8 : Independent samples t-test findings of machiavellianism dimensions by discussing subject of ethics in courses

<i>Dimension</i>	<i>Discussing subject of ethics in courses?</i>	<i>n</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>t</i>	<i>p</i>
Amoral manipulation	Yes	117	2.49	1.26	1.176	0.241
	No	109	2.29	1.19		
Distrust of others	Yes	117	2.90	0.92	1.378	0.170
	No	109	2.73	0.92		
Desire for status	Yes	117	3.84	0.98	2.015	0.045*
	No	109	3.58	1.01		
Desire for control	Yes	117	3.33	1.08	1.309	0.192
	No	109	3.15	1.01		

* : p < 0.05

As shown in Table 8, there was no significant difference for dimensions of amoral manipulation, distrust of othes and desire for control (respectively p=0.241, p=0.170 and p=0.192) regarding discussing subject of ethics in courses but there was a significant difference for dimension of desire for status (p=0.045) regarding

discussing subject of ethics in courses. Accordingly, desire for status of students, who discussed subject of ethics in courses, (mean=3.84) is higher than students, who did not discuss subject of ethics in courses (mean=3.58). H19 was therefore supported but H17, H18 and H20 were rejected.

Table 9 : One-way ANOVA findings of machiavellianism dimensions by grade point average

<i>Dimension</i>	<i>Grade Point Average</i>	<i>n</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>F</i>	<i>p</i>	<i>Significant Difference</i>
Distrust of others	< 2.00	16	2.81	1.11	1.231	0.299	None
	2.00-2.49	70	2.64	0.86			
	2.50-2.99	95	2.90	0.95			
	3.00 and over	45	2.91	0.88			
Desire for status	< 2,00	16	3.58	0.96	0.953	0.416	None
	2.00-2.49	70	3.59	1.08			
	2.50-2.99	95	3.75	0.97			
	3.00 and over	45	3.88	0.96			
Desire for control	< 2.00	16	3.43	0.92	3.886	0.010*	between 2.50-2.99 and 3.00 and over between 2.00-2.49 and 3.00 and over
	2.00-2.49	70	3.14	1.07			
	2.50-2.99	95	3.09	0.99			
	3.00 and over	45	3.68	1.07			
*: p < 0.05 Post Hoc Test: Tukey Test							
Because p for levene test (p=0.027) of amoral manipulation is smaller than 0.05, amoral manipulation could not be tested by one-way ANOVA							

Because p for levene test (p=0.027) of amoral manipulation is smaller than 0.05, amoral manipulation could not be tested by one-way ANOVA and H21 could not therefore be tested. As shown in Table 9, there was no significant difference for dimensions of distrust of others and desire for status (respectively p=0.299 and p=0.416) in terms of grade point average variable but there was a significant difference for dimension of desire for control (p=0.010) in terms of grade point average variable. Accordingly, desire for control of students, whose grade point average is 3.00 and over, (mean=3.68) is higher than students, whose grade point average is 2.00-2.49 and 2.50-2.99, (respectively mean=3.14 and mean=3.09). H24 was therefore supported but H21, H22 and H23 were rejected.

There was no significant difference for dimensions of amoral manipulation, distrust of others, desire for status and desire for control (respectively p=0.060, p=0.650, p=0.481 and p=0.151) regarding request to work in the audit area in the future and there was no significant difference for dimensions of amoral manipulation, distrust of others, desire for status and desire for control (respectively p=0.191, p=0.319, p=0.515 and p=0.406) regarding request to choose accounting profession in the future. H25, H26, H27, H28, H29, H30, H31 and H32 were therefore rejected.

There wasn't any significant difference between students' Machiavelism and variables of taking 'Accounting Auditing' course, ever cheated in exam, would take the exam questions before exam if has a chance.

CONCLUSION

The purpose of this study is to measure Machiavellian tendencies of Business Administration and Public Finance students by using Machiavellianism scale and to investigate whether there is a significant difference between students' Machiavellianism according to some demographic and ethical tendency variables. Students have the highest score on 'Desire for status' followed by 'Desire for control' and 'Distrust of others' and have the lowest score on 'Amoral manipulation'.

Scores of 'Amoral Manipulation' and 'Distrust of others' of male students are higher than female students. Score of 'Desire for control' of business administration students is higher than public finance students.

Score of 'Desire for status' of students who participated in a course or seminar on ethics and who discussed subject of ethics in courses is higher than students, who did not. Scores of 'Amoral manipulation' and 'Distrust of others' of students who told their teacher about their friend cheated in the exam are higher than students who did not tell. Score of 'Desire for control' of students whose grade point average is 3,00 and over is higher than students whose grade point average is 2,00-2,49 and 2,50-2,99.

As it is seen, significant differences are mostly between students' scores of 'Desire for status' and 'Desire for control' sub dimensions according to some demographic variables. Students who participated in a course or discussion on ethics have higher scores of 'Desire for status'. These results may evoke also passion which may be useful for being successful to a certain extent, but it may be harmful after a point if it can't be controlled.

High Mach individuals may cause problems for effective teamwork or adapting to organizational culture because they may exert power over other individuals and thereby cause conflicts within the organization (Ayan et al., 2013, 104). Inferences from research indicate that when decisions and judgments conflict with personal self-interest, high Mach individuals may have a tendency to refuse group normative guidelines (Wakefield, 2008, p. 127).

Code of professional conduct can prevent Machiavellian behavior by providing some limitations for individuals and cause conflict with their inner desire if they are high Mach and this will lead lack of job satisfaction (Roodpooshti et al., 2012, p.10577). Job satisfaction will increase when there has been fit between personality

and job; the individuals will realize that they have required ability and they will be more successful (p. 10580). The effective factors on job satisfaction and the personality type of individuals must be taken into consideration in human resource planning.

There may be some unethical engagements of Mach individuals such as providing incorrect information to investors, manipulating financial reporting information, breaking contract rules with customers and infringing customer privacy or they may enhance their own welfare by hindering the success of colleagues (Greenbaum, Hill, Mawritz, and Quade, 2017, p. 587).

Even there were also some researches state that accounting professionals are less Machiavellian than other groups (McLean and Jones, 1992; Wakefield, 2008), it should be considered how Machiavellianism influences the behavior of the accountants in uncertain situations (Wakefield, 2008, p. 127).

Independent audit increases the accuracy and reliability of financial statements and enables the information users to make accurate decisions (Gönen, 2016, p. 1806). Auditors should be completely ethical in their activities to maintain public confidence in their abilities (Shome and Rao, 2009, p. 370).

Using an accurate assessment tool to measure or predict ethical behavior contributes to accounting studies (Pope, 2005, p. 102). As corporate scandals trouble accounting profession; to retrieve the reliability of the profession, understanding how accounting education should be to prepare future accountants better is very important.

The influences of Machiavellianism trait should be taken into consideration in academic and business life. Academicians and practitioners should cooperate to train honest and ethically sensitive future candidates by designing improving and efficient curriculum which includes ethics courses.

Students can be provided to behave ethically and to be self-confident by consulting and encouraging them with a suitable education context.

The limitation of this study is that it is performed in a faculty of a university. It is suggested to perform this research in different universities and faculties to compare the results.

REFERENCES

- Ak, B. (2010). Parametrik Hipotez Testleri. Ş. Kalaycı (Ed.), *SPSS Uygulamalı Çok Değişkenli İstatistik Teknikleri* (5. Baskı, pp.73-82). Ankara: Asil Yayın Dağıtım Ltd.Şti.
- Ayan, A., Ünsar, S., & Kahraman, G. (2013). A Research on the Determination of Machiavellian Personality Tendencies. *Eskişehir Osmangazi Sosyal Bilimler Dergisi*, 14 (1), 103-121.
- Aydoğan, E. and Serbest, S. (2016). İş Yerinde Karanlık Üçlü: Bir Kamu Kuruluşunun İç Denetim Biriminde Araştırma. *Sayıştay Dergisi*, 101, 97-121.
- Çokluk, Ö., Şekercioğlu, G., & Büyüköztürk, Ş. (2016). *Sosyal Bilimler İçin Çok Değişkenli İstatistik Ve LISREL Uygulamaları* (4. baskı). Ankara: Pegem Akademi.
- Dahling, J. J., Whitaker, B. G., & Levy, P. E. (2009). The Development and Validation of a New Machiavellianism Scale. *Journal of Management*, 35 (2), 219-257.
- Elias, R. Z. (2015). The Effect of Machiavellianism on business Students' Perception of Cheating. *Academy of Educational Leadership Journal*, 19 (1), 175-183.
- Gönen, S. (2016). Bağımsız Denetimde Çalışma Kağıtlarının 230 No'lu Türkiye Denetim Standardı Açısından İncelenmesi. *İnsan ve Toplum Bilimleri Araştırmaları Dergisi*, 5 (7), 1792-1808.
- Greenbaum, R. L., Hill, A., Mawritz, M. B., & Quade, M. J. (2017). Employee Machiavellianism to Unethical Behavior: The Role of Abusive Supervision as a Trait Activator. *Journal of Management*, 43 (2), 585-609.
- Kara, H. (2016). Makyavelist Değerlerin Yönetici Olmak İsteyen Öğrenciler Üzerindeki Etkisinin Araştırılması. *Uluslararası Yönetim İktisat ve İşletme Dergisi*, 12 (29), 125-139.
- McLean, P.A., & Jones, D. G. (1992). Machiavellianism and Business Education. *Psychological Reports*, 71 (1), 57-58.
- Miller, B. K., Smart, D. L., & Rechner, P. L. (2015). Confirmatory factor analysis of the Machiavellian Personality Scale. *Personality and Individual Differences*, 82, 120-124.
- Pope, K. R. (2005). Measuring the Ethical Propensities of Accounting Students: Mach IV Versus DIT. *Journal of Academic Ethics*, 3 (2-4), 89-111.
- Rayburn, J. M., & Rayburn, L. G. (1996). Relationship Between Machiavellianism and Type A Personality and Ethical-Orientatıon. *Journal of Business Ethics*, 15(11), 1209-1219.
- Roodpooshti, F. R., Nikoomaram, H., & Mahfoozi, G. (2012). Machiavellianism and Accountants Ethical Approach: Evidence from Iran. *Journal of Basic and Applied Scientific Research*, 2 (10), 10576-10581.
- Shome, A., & Rao, H. (2009). Machiavellianism in Public Accountants: Some Additional Canadian Evidence. *Business Ethics: A European Review*, 18 (4), 364-371.
- Solmaz, E., & Uçma, T. (2010). Bankacılık Sektöründe Çalışanların Makyavelist Eğilimlerinden Yola Çıkararak Etik Algılarını Belirleme: Muğla İlinde Ampirik Bir Araştırma. *Muhasebe ve Denetim Bakış*, 31, 93-108.
- Sungur, S. A. (2017). Siyasal Bilgiler Öğrencilerinin Makyavelist Eğilimlerini Belirlemeye Yönelik Bir Araştırma. *Elektronik Sosyal Bilimler Dergisi*, 16 (63), 1361-1370.
- Ülbeği, İ. D. (2016). Makyavelizm Ölçeğinin Güvenirlilik ve Geçerlik Çalışması. *Ç.Ü. Sosyal Bilimler Enstitüsü Dergisi*, 25 (2), 89-100.
- Wakefield, R. L. (2008). Accounting and Machiavellianism. *Behavioral Research in Accounting*, 20 (1), 115-129.