



Analysis of Differences in the Manifestations of Manipulation among Traders in Terms of Gender and Education

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Abstract: Manipulation occurs quite often in the work of a trader and is related to personal and socio-demographic characteristics. The term manipulation is included under the term Machiavellianism, which describes the abuse of other persons to achieve the manipulator's own goals. The aim of the paper is to examine the differences in the manifestations of manipulation in traders in terms of their gender and education. The research sample consisted of 123 traders, of which 54 (44%) were men and 69 (56%) women. In terms of education, 47 (38%) respondents achieved secondary and vocational education and 76 respondents (62%) completed higher education. Data were collected through a questionnaire survey using two methodologies. For the purposes of detecting Machiavellian manifestations, it was the CASADI methodology (Calculativeness, Self-Assertion, Diplomacy) and for the determination of Machiavellian personality the MPS methodology (Machiavellian Personality Scale). The results of both used methods confirmed the expected differences. According to the CASADI methodology, from the point of view of gender, a statistically significant difference was found in the assessment of one of the attributes of Machiavellian manifestations, namely the attribute Diplomacy, where women scored higher. In terms of education, a statistically significant difference was found in the Self-Assertion attribute, where traders with a university degree scored higher. According to the MPS methodology, significant differences were recorded in the assessment of the attributes Amorality and Desire for status. In comparison, men scored higher on these two indicators. The results of the analysis in terms of education showed higher scores in all attributes for traders with a higher education. The obtained results are similar to the results of previous research and confirm the importance of socio-demographic characteristics in the manifestations of manipulative behavior.

1. INTRODUCTION

When manipulating, we are talking about the misuse of psychological means often with a not humane purpose. The reason for such action is to make a profit, political influence, or to abuse a group of people in certain circumstances. We are talking about a highly valued ability to be successful, assertive, to achieve your goals, to motivate yourself. These may include manipulation training, recruitment, deprivation of decision-making, as well as financial and personal freedom. This knowledge of psychology is often misused in order to control people (Birknerová, Tomková & Čigarská, 2021). Manipulators are people characterized by a certain type of personality disorder. It is a feeling of lack in a certain aspect of the psyche that distorts the subsequent dealings with others.

It manifests in the level of cognition, perception and interpretation of oneself and other people, as well as the intensity of emotional experience (Birknerová & Tomková, 2020; Rovňák, Bakoň

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& Tychaničová, 2020). Manipulation is a way of influencing other people for the benefit of the manipulator. In terms of managerial work, we can specify manipulation as a means to achieve the benefit of the whole organization or as a means to achieve personal benefit (Oravcová, 2004).

Manipulative behavior is often referred to as Machiavellianism. The construct of Machiavellianism was originally developed by Christie and Geis (1970) based on their studies of political and religious extremist groups, and eventually focused on how the leaders of these groups manipulated their subordinates to fulfill their desires. They identified several topics that are extremely important for effective manipulators, such as the willingness to use manipulative tactics, amoral action, and the promotion of a cynical, distrustful view of human nature. Machiavellists use other means to accomplish their own goals (Christie & Geis, 1970; Wilson, Near & Miller, 1996; Grams & Rogers, 1989; McHoskey, Worzel & Szyarto, 1998; Paal & Bereczkei, 2007).

Individuals who exhibit a high level of Machiavellianism tend to resist social influences, try to control their interpersonal interactions, and show a general lack of influence in their personal relationships (Bedell, Hunter, Angie, & Vert, 2006). Dahling et al. (2009) describe Machiavellianism as a construct based on inner beliefs, values and motivations. Although it involves amoral manipulation, those who are highly Machiavellian are not constantly and actively involved in amoral manipulation. They tend to be very adaptive, and if they realize that this will accelerate their goals and interests, they can engage in pro-organizational behavior in a friendly and cooperative manner.

It happens that the manipulation is carried out so cleverly that we do not even notice that something like this is happening around us. The manipulated person mistakenly thinks that he decides on his behavior independently. However, he does not realize that it is only a tool in the hands of the real author to serve important goals for him (Wilson, Near & Miller, 1996). Such manifestations of Machiavellian behavior are also pointed out by Judge et al. (2009).

Machiavellianism as such speaks of the means that man chooses to achieve something. The analyses of Wilson, Near, and Miller (1996) also show that unethical Machiavellian tactics in real life rarely lead to success. The fact that the positive correlation between Machiavellianism depends on the context, i.e. on the specificity of the field to the level of education or the ambiguity of the situation, has also been proven. In unclear situations where people receive asymmetric information, the advantage is highly Machiavellian people who are able to more easily and quickly adopt and apply more adaptable strategies that lead to maximizing their own profits.

The structure of the organization and the way of working according to Křížková (2002) correspond to male characteristics and abilities, which was also shown in the research. Women described men at work as aggressive, competitive, confident, but also calm. They further described them as vain, less responsible, lazy and impractical. The author states that the first set of characteristics corresponds to the nature of the business environment. The second circle fits into the image of the position, but also the responsibility for their tasks.

2. METHODS

The aim of the research was to compare selected groups of sociodemographic data with manifestations of manipulation among traders at the workplace. Based on the goal, two hypotheses were established:

Hypothesis 1: We assume that there are statistically significant differences in selected attributes of assessing the level of manipulation of leaders and Machiavellian manifestations in the business process between men and women.

Hypothesis 2: We assume that there are statistically significant differences in selected attributes of assessing the level of manipulation of leaders and Machiavellian manifestations in the business process in terms of education.

The research sample consisted of 123 traders, of which 54 (44%) were men and 69 (56%) were women. The average age of the respondents was 31.85 years (the standard deviation was 9.637 years, ranging from 18 to 65 years). In terms of education, the sample consisted of 47 (38%) respondents with secondary education and 76 (62%) respondents completed higher education.

Within the quantitative research, a questionnaire method of collecting empirical data and mathematical-statistical methods were used to analyze the obtained data in the SPSS program. In order to verify the established hypotheses, the data were obtained from the respondents through the following questionnaires:

2.1. Questionnaire CASADI

The CASADI methodology (Frankovský, Birknerová and Tomková, 2017) was designed for the purpose of detecting Machiavellian manifestations in business and managerial behavior. Three factors were extracted by factor analysis: calculativeness (CA), self-assertion (SA) and diplomacy (DI). The new CASADI methodology contains statements that relate to the respondent's personal opinion on manipulation between people. The individual items of the questionnaire were inspired by the publication *The Prince* by Niccol Machiavelli (2007). The questionnaire contains 17 items, to which the respondents answer using the scale «0 - definitely no, 1 - no; 2 – rather no than yes; 3 – rather yes than no; 4 - yes, 5 - definitely yes “.

Factor analysis using the Principal Component method with Varimax rotation extracted three factors that confirmed the existence of the presumed factor structure of Machiavellian manifestations in business behavior. These factors were characterized as:

1. **Calculativeness** – respondents who score higher in this factor are more convinced that people's control must be maintained at all costs. These respondents hold the view that it is necessary to tell others what they want to hear and that it is necessary to gain knowledge so that they can be used to control others. Calculating people believe that when two competitors compete, it is necessary to recognize whose victory is more beneficial for them, and in any case it is beneficial to base their power on the control of other people. Cronbach's alpha: 0.760.
2. **Self-Assertion** – respondents who score higher in this factor are characterized by the fact that they believe that only such a person is reliable, who relies on himself and on his own strength. A successful person must always keep in mind that he must avoid allies stronger than himself. This factor also adheres to the view that whoever helps another to seize power cuts the branch on which they sit. And then the one who wants to stay in power must consider all the necessary tough measures in advance and take them all at once so that he does not have to return to them later. Cronbach's alpha: 0.521.
3. **Diplomacy** – respondents who score higher in this factor are characterized by the fact that they are constantly collecting information that can later be used for their own benefit.

Skillful diplomacy is used to control others, and false and indirect communication is preferred. Respondents surround themselves with capable people and society in general and show them generosity and recognition at the right time. Cronbach's alpha: 0.696.

2.2. Questionnaire MPS

The MPS (Machiavellian Personality Scale) methodology was developed by Dahling, Whitaker and Levy (2009). This methodology was created for leaders in determining the level of their manipulation. The construct is based on studies of political and religious extremist groups as leaders of these groups manipulate their subordinates (Christie, Geis 1970).

The methodology contains 16 items and its internal consistency (Cronbach's alpha) is 0.89. Items are judged on a 5 - point scale (1 - strongly disagree, 5 - strongly agree). Factor Component Analysis with Varimax rotation extracted 4 factors determining Machiavellianism, which Dahling et al. (2009) named:

1. **Amorality:** Those who score higher in this factor believe that by deception they will prevail over others. They know how to use information to their advantage and just have a conversation with others. These people behave unethically if they believe it will help them succeed. They often commit fraud and are able to sabotage others as long as they threaten their goals. Cronbach's alpha: 0.790.
2. **Desire for status:** Higher scoring individuals in this factor know that social status is a good sign of success in life. Their efforts are focused on material security and wealth. These people want to be rich and influential. Cronbach's alpha: 0.709.
3. **Desire for control:** People who are characterized by a higher score in this factor enjoy being able to have control over the situation. In interpersonal relationships, there are those who give orders, and overall control over others satisfies them to the maximum. Cronbach's alpha: 0.831.
4. **Distrust of others:** People who are characterized by a higher score in this factor do not like teamwork and do not trust other people. If they are already in the team, they kick each other's knees because they want to be unique. They are motivated only on the basis of personal gain. They claim that others will use the situation to their advantage without any hesitation if they show them any weakness at work. They think that people are planning ways to benefit from the situation on their behalf. Cronbach's alpha: 0.731.

3. RESULTS AND INTERPRETATION

In Hypothesis 1, we assumed that there are statistically significant differences in selected attributes of assessing the level of manipulation of leaders and Machiavellian manifestations in the business process between men and women. To verify the hypothesis, a t-test was used to determine differences in a sample of respondents. In Table 1, we describe selected attributes for assessing the level of manipulation of leaders and Machiavellian manifestations in the business process from the perspective of the gender of respondents.

A statistically significant difference was found in the assessment of one attribute of Machiavellian manifestations (CASADI) of Diplomacy, with women scoring higher. The results show that women, compared to men, expressed a higher degree of agreement with the way of conducting business, which is saturated with this attribute of Machiavellianism.

Mathematical-statistical analysis of differences in the responses of women and men carried out on the basis of data obtained by the MPS methodology also confirmed the existence of two statistically significant differences. Significant differences in traders were noted in the assessment of the attributes of manipulation of leaders (MPS) Amorality and Desire for status. Compared to women, men scored higher on these two indicators.

Table 1. Differences of selected attributes of manipulation of leaders and Machiavellian manifestations within the gender

	Gender	Mean	St. Deviation	t	Sig (2-tailed)
Calculativeness	Man	2.5556	1.07083	-.709	.480
	Woman	2.6928	1.06140		
Self-assertion	Man	3.0093	.64968	-.662	.509
	Woman	3.1087	1.00776		
Diplomacy	Man	3.2269	.73092	-3.710	.000
	Woman	3.6739	.60528		
Amorality	Man	2.9852	1.09810	2.888	.005
	Woman	2.3855	1.17689		
Desire for status	Man	3.2901	.97784	.140	.889
	Woman	3.2657	.94727		
Desire for control	Man	3.2284	.82372	1.994	.048
	Woman	2.8841	1.03820		
Distrust of others	Man	3.2148	.85460	.737	.463
	Woman	3.0899	.99086		

Source: own processing

In Hypothesis 2, we assumed that there are statistically significant differences in selected attributes for assessing the level of manipulation of leaders and Machiavellian manifestations in the business process in terms of education. The t-test for detecting differences in a sample of respondents was also used to verify the second hypothesis. Table 2 describes selected attributes for assessing the level of manipulation of leaders and Machiavellian manifestations in the business process in terms of the education of respondents.

Table 2. Differences of selected attributes of manipulation of leaders and Machiavellian manifestations within education

	Education	Mean	St. Deviation	t	Sig (2-tailed)
Calculativeness	secondary	2.4340	1.12468	-1.639	.104
	higher education	2.7553	1.01172		
Self-Assertion	secondary	2.8617	.77811	-2.073	.040
	higher education	3.1908	.89988		
Diplomacy	secondary	3.4681	.74247	-.119	.905
	higher education	3.4836	.67248		
Amorality	secondary	2.2596	1.01717	-2.976	.004
	higher education	2.8895	1.21035		
Desire for status	secondary	3.0567	.97634	-2.028	.045
	higher education	3.4123	.92515		
Desire for control	secondary	2.5532	.78413	-4.740	.000
	higher education	3.3333	.94438		
Distrust of others	secondary	2.8809	.75373	-2.692	.008
	higher education	3.3079	.99676		

Source: own processing

A statistically significant difference was found in traders in the assessment of one attribute of Machiavellian manifestations (CASADI) Self-assertion. In this case, traders with a university degree scored higher.

Significant differences were noted in all attributes in the assessment of Leader Manipulation Attributes (MPS). In all attributes, traders with the highest education scored higher.

The hypotheses can be considered confirmed because the assumptions that there are statistically significant differences in selected attributes of the manipulation of leaders and Machiavellian manifestations in terms of gender and according to the education of traders have been confirmed.

4. DISCUSSION AND CONCLUSION

In the context of the topic, we examined the existence of statistically significant differences in selected attributes of assessing the level of manipulation of leaders and Machiavellian manifestations in terms of gender distribution of traders. Higher values were measured within women traders in the attribute of Machiavellian manifestations of Diplomacy. As part of the manipulation of leaders, men scored higher with the attributes Amorality and Desire for Control. We have found that women traders are more inclined to communicate falsely and indirectly than men traders. Conversely, male traders more than women tend to cheat, sabotage others and have control over others.

According to Rutherford (2011), women are convinced that they can listen better, have a better ability to empathize and have easier relationships to establish and maintain relationships in the workplace. Among the main aspect of cooperation is humanity, women are adaptable in terms of aligning their leadership style with the team, they are creative and have better organizational skills compared to men in management. Křížková (2002) states that women managers describe themselves and their way of working and leading as emotional, systematic, communicative, practical, caring, critical, with a sense for detail. Kaufmann (2008) points out that women, unlike men, are more often underestimated and unable to see their own strength and influence.

Khelerová (2006) highlights an important area of communication skills, namely non-verbal communication, which is mainly dominated by women. It is non-verbal expressions that add emphasis and persuasion to the spoken. Women are able to make contact with their partner, negotiate successfully through words as well as non-verbal signals.

Čerešník (2011) describes gender differences, stating that the feminine trait is characterized by interest in others, cooperation, sensitivity to the needs of others, emotional openness. The masculine feature, on the other hand, is characterized by a quest for independence, power, control, striving for performance, and self-promotion.

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 participants 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.

Significant differences between women and men were found by Birknerová and Frankovský (2014) when assessing Machiavellianism in the factor of deception and the overall score of Machiavellianism. In both cases, male managers expressed a greater degree of Machiavellianism than women. The difference was reflected in a higher rate of rejection of these attributes by women. In this research, manifestations of Machiavellianism were accepted in both men and women.

As part of the manipulation of leaders and Machiavellian manifestations, we examined the existence of statistically significant differences in the business process in terms of the highest achieved education of traders. Higher values were measured at the highest achieved university education within all attributes of manipulation of leaders. Within Machiavellian expressions, university-educated respondents scored higher with the Self-Assignment attribute. We have found that university-educated business people are the ones who rely heavily on themselves. Rather, these traders use lies and long for social status, have an overview of interpersonal relationships and are not advocates of teamwork.

Education has been shown to be an influence on the individual's Machiavellianism. In the Christie and Geis (1970) research and again Webster and Harmon (2002) the results confirmed that hypothesis. Specifically, persons with a higher level of education are generally the higher Machiavellian persons. Although literacy rate is not the same as education level, a comparison of literacy rates across countries may be an appropriate proxy for a society's educational development relative to another society's development even though the comparison is made with university students.

The research by Harmon, Webster, and Hammond (2008) refutes the expectation that a higher level of education (i.e., using literacy rate as a proxy) is associated with higher Machiavellian scores.

Manipulation is a way of influencing other people for the benefit of the manipulator. In terms of business work, we can specify manipulation as a means to achieve the benefit of the entire organization or as a means to achieve personal gain. Manipulation does not manifest itself openly, but in a masked form (Oravcová, 2004).

We believe that these findings will provide insight into the understanding of the behavioral dynamics of current high school and university students and will indicate the continuing social movement of Machiavellian behavior.

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