ANALYSIS OF MACHIAVELLIAN BEHAVIOR OF STUDENTS IN THE REPUBLIC OF SERBIA

UDC 371.212:378.4:321.01

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Abstract. Using the "Mach IV Scale", this paper analyses the level of Machiavellian behavior among the student population in the Republic of Serbia. The obtained results were compared with the outcome of similar studies conducted in the United States and Indonesia. Results indicated that Machiavellianism level, manifested among the student population in the Republic of Serbia, is higher than Machiavellianism level manifested among students in the United States and Indonesia. The mixed results of this study point to the conclusion that economic development of a certain country (expressed by GDP per capita) could not be a base for reliable conclusion regarding the potential expression level of Machiavellian behavior of state’s population. These results can be useful for managers, in general, and for managers in the Republic of Serbia, particularly, in the process of recruiting and selecting new candidates, and in the course of delegating tasks to existing members of the organization.

Key words: machiavellianism, economic development, students, management.

INTRODUCTION

Machiavellianism, as a personality dimension, reflects the level of unscrupulousness, contained in an individual’s strong effort to achieve personal interests. The term “Machiavellian” was coined by the Florentine philosopher and statesman Niccolo Machiavelli (1469-1527). In his book “The Prince”, Niccolo Machiavelli offered a set of rules necessary for acquiring and retaining power (Makijaveli, 2009). According to Machiavelli, one of the primary methods for obtaining and maintaining power is to manipulate others with absolute disregard of emotions and moral principles.

In accordance with that, Machiavellians are, actually, portrayed as very rational individuals who are able to be ruthless, cunning, deceitful, unscrupulous, manipulative,
cynical and amoral, when it is necessary to achieve a goal (Yunus, Shabudin, Rahim, Hamzah, 2012, 3071). These individuals are able to act extremely unemotionally and unethically, and disregard feelings, rights and needs of others. Machiavellians are also described as individuals with the tendency to manipulate and exploit others (Paal, Bereczkei, 2007, 543). They are individuals who seek success and are prepared to use all available means for it.

As a personality dimension, Machiavellianism was first described in detail, and incorporated into the concept, thanks to the efforts of Richard Christie and Florence Geis (Dahling, Kuyumcu, Librizzi, 2012, 183). In 1960, these two researchers developed “Mach IV Scale” as an instrument for gauging individuals’ Machiavellian personality. To date “Mach IV Scale” has been used in numerous studies devoted to extensive research of the Machiavellian personality type, in different situations and among different populations.

1. MACHIAVELLIAN BEHAVIOR IN ORGANIZATIONS

Individuals who tend to Machiavellian behavior can be found in a diverse ambient frames (e.g., family, school, university, place of work, a group of friends, etc.), as well as among different populations of people (children, pupils, students, employees, family members, etc.). From the perspective of modern organizations and their managers, particularly important question is expression of Machiavellian behavior among employees, members of the organization. This is because the expression of Machiavellian behavior generally has a negative impact on various aspects of organizational functioning.

As a form of cunning, aggressive, unemotional, unethical and manipulative tactics, Machiavellianism, besides other things, can be a driver of various deviant behaviors of organizational members. Some of the most common are: lying, stealing, gossip, sabotage, the decline in satisfaction level of organizational members, the increase of stress level (Dahling, Kuyumcu, Librizzi, 2012, 184-188), violation of organizational climate of trust, the decline in civic behavior level of organizational members (Backer, O’Hair, 2007, 248), strengthening of political behavior within organizations (Drory, Gluskinos, 1980, 82), etc. At last, all of the above can have a negative impact on the organizational functioning and performances achieved.

Therefore, modern managers are expected to be able to recognize the Machiavellian behavior, among existing and potential organizational members, as well as to find appropriate mechanisms and thwart the undesirable behavior form, or reduce it to a minimum. In favor of this, the great benefit to managers may be a knowledge obtained within Organizational behavior, as a scientific field that studies the human behavior in organizational environment, as well as knowledge in the fields of psychology and personality psychology (as a science bases of Organizational Behavior).

For this reason, the results of numerous studies devoted to examining the expression level of Machiavellian behavior (Backer, O’Hair, 2007; Drory, Gluskinos, 1980; Gemmill, Heisler, 1972; Hunt, Chonko, 1984; Kessler, Bandelli, Spector, Borman, Nelson, Penney, 2010; Kiazad, Restubog, Zagencyk, Kiewith, Tang, 2010; Sparks, 1994; Walter, Anderson, Martin, 2005) are of great importance. Among the numerous studies, there are many which were carried out on student population (Christie, Geis, 1970; Harmon, Webster, Hammond, 2008; Mostafa, 2007; Webster, Harmon, 2002). The quality of researches dealing with Machiavellianism level expressed among student population is contained in a few moments. First of all, original instrument for finding the extent of Machiavellianism (the “Mach IV
Scale”), was developed among the student population. Although that instrument was successfully used in various studies among other populations (e.g., children, employees, managers, leaders), the highest degree of “Mach IV” instrument reliability was found in the studies which included respondents aged 18 - 25 (Moss, 2003, 27). A student population age is generally within that specified range. Furthermore, from the viewpoint of certain parameters (e.g. age, level of previous education, professional interest) student population can be regarded as a relatively homogeneous group. That could facilitate certain conclusions during the research. Also, even though the human personality is in constant process of evolving and changing (Robbins, Judge, 2014, 139), the certain personality traits can be seen as long-term predispositions of human behavior (Luthans, 2010, 132). It appears that the identified Machiavellian disposition of respondents (in this case students), to the expression (or not) of Machiavellian behavior, could be a relatively stable indicator of future behavior patterns of respondents throughout their lives.

In this context, it could be concluded that the existence or non-existence of Machiavellian behavior among the student population (observed within corresponding national and cultural ambient), could be useful to managers of those organizations who operate within that specific national ambient. Such information might assist managers to predict the Machiavellian behavior tendencies among future organizational members.

2. RESEARCH PURPOSE

Machiavellian behavior has numerous negative multidimensional effects. Also, no research has been done in the Republic of Serbia investigating the Machiavellianism among students. These were some of the authors’ motives to undertake such a research. The initial point of this research, and its implementation support, were previous studies dealing with Machiavellianism personality traits among the student population. These studies were conducted in the United States during the sixties of the 20th century and the first decade of the 21st century, as well as in Indonesia during the first decade of the 21st century. They were carried out by Christie R., Geis F., Webster R. L., Harmon H. A. and Hammond K. L. (Christie, Geis, 1970; Harmon, Webster, Hammond, 2008; Webster, Harmon, 2002). The results have led to a certain hypothesis, whose applicability was tested in this research.

The research, conducted in the 1960s, was carried out among population of 1782 students from several parts of the United States with different economic development level. Authors, Christie R. and Geis F., published the research findings in 1970 (Christie, Geis, 1970). Their study offered evidence that, in general, the level of Machiavellianism expressed among students from less developed and less industrialized areas is lower, compared to the Machiavellianism level expressed among their colleagues coming from developed and more industrialized states.

In 2002, the authors Webster R. L. and Harmon H. A. published similar conclusions of their study, presenting the results of Machiavellianism investigation among the United States’ student population. Webster R. L. and Harmon H. A. have, furthermore, compared their results with the previously published study of Christie R. and Geis F. The results of Webster’s and Harmon’s research indicated that Machiavellianism of the United States’ students in early 21st century (in 2002) was higher, compared to Machiavellianism of students (also from the United States territory) determined in the ninety-sixties. These results also supported the claims that rise in the economic development level leads to the rise of Machiavellian behavior among society members (Christie, Geis, 1970).
Then, Webster R. L. and Harmon H. A., along with Kevin Hammond, compared the Machiavellian behavior of the United States’ student population (results obtained from Webster’s and Harmon’s study published in 2002) with the Machiavellian behavior of their Indonesian colleagues. The results of this study, which were published in 2008, also emphasized that higher industrial and development level of the United States, compared to Indonesia, has led to a higher Machiavellianism behavior level of the United States’ students, opposed to the Machiavellianism behavior level of students from Indonesia.

Following the above mentioned studies, during the school year 2011/2012, the similar research was undertaken among the student population in the first year of study at the Faculty of Economics in Niš, in the Republic of Serbia.

Previous researches published by Christie R., Geis F., Webster R. L., Harmon H. A. and Hammond K., marked the state’s economic development level as one of the most important factors determining the Machiavellianism level of the states’ population. The economic development level may be defined by different indicators. However, gross domestic product (GDP) is one of the most commonly used. GDP is the total market value of the total officially recognized final goods and services produced within a country in a given period of time, usually one year. The total GDP divided by total state population equals a GDP per capita.

Official World Bank data on GDP per capita level (in U.S. $) in the Republic of Serbia in 2012 (when this research was conducted), as well as in the past few years, are shown in Table 1. For the comparison purpose, Table 1 also contains the official World Bank data on GDP per capita level, in 2012 and the past few years, in Indonesia and the United States.

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serbia</td>
<td>6.701</td>
<td>5.821</td>
<td>5.412</td>
<td>6.423</td>
<td>5.659</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2.178</td>
<td>2.272</td>
<td>3.137</td>
<td>3.663</td>
<td>3.718</td>
</tr>
<tr>
<td>U.S.</td>
<td>48.401</td>
<td>47.002</td>
<td>48.374</td>
<td>49.781</td>
<td>51.457</td>
</tr>
</tbody>
</table>


The data presented in Table 1 clearly indicate that the Republic of Serbia is slightly more developed country than Indonesia, but less developed than the United States. Comparison was done on the basis of economic development level, represented via GDP per capita. Additionally, as shown in Table 1, both, the United States and Indonesia, had rise in GDP per capita in 2012, compared to 2011, while the Republic of Serbia in this period recorded a decline of the same indicator.

In addition to the above relative level of economic development of the Republic of Serbia, Indonesia and the United States, is the fact that the International Monetary Fund (IMF) ranked all world states, using the economic development level, in appropriate groups. These are (IMF WEO Database, 2013): Major Advanced Economies (G7); Advanced Economies; Other Advanced Economies excluding G7 and Euro Area; Newly Industrialized Asian Economies; Euro Area; European Union; Central and Eastern Europe; Latin America and Caribbean; Commonwealth of Independent States; Middle East and North Africa; Emerging and Developing Economies; ASEAN – 5; Developing Asia; Sub-Saharan Africa. While the United States is simultaneously in the first and second specified
group of countries ("Major Advanced Economies G7" and "Advanced Economies"), Indonesia and the Republic of Serbia are classified into eleventh group of countries ("Emerging and Developing Economies").

According to the research claims made by Christie R., Geis F., Webster R. L., Harmon H. A. and Hammond K. L., it could be expected, that Machiavellianism level among the student population in the Republic of Serbia, will be higher than Machiavellianism level among students in Indonesia, and lower than Machiavellianism level identified in the United States in the beginning of the 21 century. Against this background, the following hypotheses were tested in the paper:

- H1: due to lower economic development level of the Republic of Serbia compared to the United States, Machiavellianism level expressed among the student population in the Republic of Serbia (in 2012) is lower than Machiavellianism level expressed among the student population in the United States (in 2002);
- H2: due to higher economic development level of the Republic of Serbia compared to Indonesia, Machiavellianism level expressed among the student population in the Republic of Serbia (in 2012) is higher than Machiavellianism level expressed among the student population in Indonesia (in 2008).

3. METHOD

Sample and procedure. For the purpose of collecting data, to assess Machiavellian behavior expression level among students (future organizational members) in the Republic of Serbia, during school year 2011/2012, the survey was conducted at the Faculty of Economics in Niš. With prior permission of the Dean of the Faculty, and with the approval of students, the first author of this paper conducted a survey among students. The survey was conducted after regular school hours. It occurred in two groups and lasted 45 minutes. The survey initially included 250 students of the first year of undergraduate study. Total number of 250 questionnaires was distributed among students, of which 21 (or 8.4%) were unusable, due to random answering, or blank questionnaires were returned. Therefore, 229 questionnaires were finally answered and included in the analysis (N = 229), which is 91.6%. Among these, 75 participants (32.75%) were male, while 154 (67.25%) were female. Regarding the age of the participants, their ages ranged from 19 - 22, while the average age of all participants was 19.8 (M = 19.8; SD = 0.72). General information about the participant profile is presented in Table 2.

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
<th>%</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total number of respondents</td>
<td>250</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of usable questionnaires</td>
<td>229</td>
<td>91.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of unusable questionnaires</td>
<td>21</td>
<td>8.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>75</td>
<td>32.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>154</td>
<td>67.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>19.8</td>
<td></td>
<td>0.72</td>
<td></td>
</tr>
</tbody>
</table>
The Republic of Serbia, in which the survey presented in this paper was conducted, occupies the central part of the Balkan Peninsula. Serbia is organized into 5 distinct regions: the Belgrade region, Vojvodina region, region of Šumadija and Western Serbia, region of Southern and Eastern Serbia and Kosovo and Metohija region (Vlada Republike Srbije – teritorijalna organizacija, 2004). Students belonging to Southern and Eastern Serbia region, mainly are attending the Faculty, where the research was conducted. This is the least developed region in the Republic of Serbia (Aktuelna razvojna kretanja, 2012).

**Instruments.** As an instrument for data collecting, “Mach IV Scale”, developed by Christie R. and Geis F., was used. It is an instrument comprising the twenty statements, whose assessment has been done by 7-point Likert scale (from 1 - *strongly disagree*, to 7 - *strongly agree*). Consistent with previous research, a constant of 20 was added to the calculation, so that scores ranged from 40 points (low Machiavellian level) to 160 points (high Machiavellian level). A score of 100 points represents the neutral Machiavellian level. Coefficient alpha in this sample was 0.62, indicating its satisfactory reliability.

The Serbian version of this questionnaire was created through translation and back-translation technique (Brislin, 1970, 193). The first author of this paper translated the English version of the questionnaire into Serbian. Then, the Serbian version of the questionnaire was translated back into English by a bilingual expert, to verify its credibility.

4. **Results**

Survey results of Machiavellian behavior among the student population in the Republic of Serbia, are presented by gender, in Table 3.

<table>
<thead>
<tr>
<th>Sex</th>
<th>Sample size</th>
<th>Mean value</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>75</td>
<td>95.83</td>
<td>10.09</td>
</tr>
<tr>
<td>Female</td>
<td>154</td>
<td>92.95</td>
<td>10.24</td>
</tr>
</tbody>
</table>

Measured by the seven-level Likert scale according to which higher numbers indicate higher levels of Machiavellianism

The results were compared with the findings published by Webster R., Harmon H. A. and Hammond K., during 2002 and 2008, and presented in Table 4.

<table>
<thead>
<tr>
<th>Sample size</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Male Female</td>
<td>All Male Female</td>
<td>All Male Female</td>
</tr>
<tr>
<td>U.S.</td>
<td>240</td>
<td>107</td>
</tr>
<tr>
<td>Serbia</td>
<td>229</td>
<td>75</td>
</tr>
<tr>
<td>Indonesia</td>
<td>262</td>
<td>106</td>
</tr>
</tbody>
</table>

Measured by the seven-level Likert scale according to which higher numbers indicate higher levels of Machiavellianism
5. DISCUSSION

In general, results indicate that Machiavellian orientation of the student population in the Republic of Serbia is much higher than initially expected. According to the results of this study, comparative data on the economic development level of a certain country (expressed by GDP per capita), could not be base for reliable conclusion regarding the potential Machiavellian behavior expression among the state’s population.

However, one should bear in mind the fact that, the particular study investigated the Machiavellian behavior among students in the Republic of Serbia during 2012 (M = 93.89; SD = 10.26) and these results were compared with the Machiavellian behavior among the United States’ students (M = 92.02; SD = 10.13) identified a decade ago. In modern, highly dynamic business environment, with increasing complexity, when the world is developing at unforeseen speed, the period of a decade cannot be overlooked. Although we have no official information regarding Machiavellianism level among the United States’ student population in 2012, the fact that Machiavellianism level is increasing along with the development, could lead us to a conclusion that Machiavellianism level today, is probably higher than in 2002 (when it was identified by Webster R. L. and Harmon H. A). This can be considered as one of the major limitations of our study. However, the World Bank official data indicate that GDP per capita in the United States in 2001 (U.S. $ 35,012) (The World Bank, 2013), when the research of Machiavellianism among the population of students in the United States was performed, was well above GDP per capita in the Republic of Serbia in the 2012 (U.S. $ 5,659) (The World Bank, 2013), when the research of Machiavellianism among the population of students in the Republic of Serbia was performed. With regard to above statements, it should be noted that many factors, besides economic, encourage intensive expression of Machiavellian behavior in a particular national environment.

Regarding to the situation in the Republic of Serbia, in addition to usual Machiavellian drivers, certainly there are many other factors with negative implications on expression of Machiavellian behavior. As main factors we could mention: accumulated economic, social and political problems faces by the Republic of Serbia for decades, armed conflict during the nineties of the 20th century, illegal privatizations, high level of corruption and crime, general decline in society morals, high unemployment level, extensive poverty, “gray” economy, absence of strong corporate and social responsibility and ethical behavior of organizations and their members. The generation of students, who participated in the survey, has grown up in an environment shaped by listed circumstances. The moral structure of the society has a particularly important influence on expression of the Machiavellian behavior of its members. If we start from the statements of Ferrell O. C. and Skinner S. J. who claim that low Machiavellianism level is strongly related to high business ethics (Ferrell, Skinner, 1988, 108) and the statement quoted by Jay A. who indicated that corporations and states are, in essence, identical organisms (McGuire, Hutchings, 2006, 198), it seems logical to conclude that society with high moral and ethical
principles should have lower level of Machiavellianism. And vice versa, decline in moral of the society, would lead to a decline in individuals’ moral, and influence high Machiavellian tendencies.

This would be the key insights for the modern managers in general, as well as for managers in the Republic of Serbia. The presented results of the survey, regarding Machiavellianism level among student population in the Republic of Serbia, were higher than expected. This should be a signal and support to managers in the Republic of Serbia to work harder for the purpose of efficient management of Machiavellian behavior among future organizational members, today’s students.

CONCLUSION

The expression level of Machiavellian behavior in the respective national environment is determined by a heterogeneous set of factors. Although the factors of economic nature should not be neglected (primarily the economic development level as the most important), certainly there are many other factors, of so-called situational character, with corresponding influence on expression of Machiavellian behavior among subjects belonging to the particular national environment.

The research findings of this paper have some limitations: respondents were students of only one faculty in the Republic of Serbia; only students of the first year of undergraduate study were survey participants; the research was conducted in the school year 2011/2012, and the results were compared with the results of a similar survey conducted in the United States (in 2002) and Indonesia (in 2008). Despite these limitations, the mixed results of this study point to the conclusion that the economic development level of a certain country (expressed by GDP per capita), could not be a base for reliable conclusion regarding the potential expression level of the Machiavellian behavior of the state’s population.

In this respect, managers in general, as well as managers in the Republic of Serbia, are advised to apply different sets of mechanisms belonging to Human Resource Management and Organizational Behavior scientific disciplines, with the purpose of successful routing of expression level of the Machiavellianism behavior within organizations. Among other things, managers are suggested to test applicants’ personality traits during recruitment, independently or together with experts, primarily psychologists. This testing, among other things, should include checking of candidates’ Machiavellian behavior expression tendencies.

Acknowledgement: The paper is a part of the research done within the project 179081, financed by the Ministry of Education and Science of the Republic of Serbia.

REFERENCES
ANALIZA MAKIJAVELISTIČKOG PONAŠANJA STUDENATA U REPUBLICI SRBIJI

Primenom “Mach IV Scale”, u radu se ispituje nivo ispoljavanja forme makijavlističkog ponašanja među populacijom studenata u Republici Srbiji. Dobijeni rezultati su komparirani sa rezultatima sličnih studija sprovedenih u SAD i Indoneziji. Rezultati su pokazali da je nivo makijavelizma koji je ispoljen među populacijom studenata u Republici Srbiji, viši u odnosu na nivo makijavelizma koji je ispoljen među studentima u SAD i u Indoneziji. Dobijeni mešoviti rezultati ukazuju i na to da stepen ekonomskog razvoja jedne države (izražen kroz DBP per capita), ne može poslužiti kao pouzdana osnova za zaključke o potencijalnom stepenu ispoljavanja forme makijavelističkog ponašanja među stanovništvom te države. Ovi rezultati mogu poslužiti menadžerima uopšte, kao i menadžerima organizacija u Republici Srbiji prilikom regrutovanja i selekcije novih kandidata, kao i prilikom delegiranja zadataka postojećim članovima organizacije.

Ključne reči: makijavelizam, ekonomski razvoj, studenti, menadžment