

Examination of leadership styles in organizations in Serbia which in its operations apply the concept of preserving natural resources

Abstract

Leadership becomes an important topic of research in organizational theory as it is an essential factor for the success of organizations. Leadership can be understood as a process of influencing followers based on clear values and beliefs. Leaders based on their own power create trust in the organization and the desire for followers to achieve the goals of both the group and the organization. Bearing in mind that natural resources are a factor necessary for the functioning of societies in the modern world, the main goal of the paper is to determine leadership styles in organizations that apply the concept of preservation of natural resources in their operations.

Keywords: *leadership; natural resources; leadership styles*

1 INTRODUCTION

Accelerated industrialization and the increasing level of production in the world caused a faster depletion of natural resources and the emergence of environmental problems, which directly affects the environment. The whole world is affected by serious environmental problems, but it is increasingly difficult to find a balance between production and ecology.

Economic development is unthinkable without natural resources. Natural resources belong to a group of basic and unavoidable factors on which development is based.

Leadership is the ability to focus the group on the organization's vision and goals. It can be said that it represents one of the key features of an organization that interacts with employees and which has a great influence on the rate of turnover. Without leadership, the realization of a task is impossible [8].

Davis [2] states that term leadership implies attitude, guiding the organization or some of its part in a new direction, problem solving, creativity, launching new programs, building organizational structures and improving quality in an organization. According to Kotter [6], leadership is the art of mobilizing others who strive towards goal realization and common aspirations.

Dulewicz and Higgs [3] consider that the relationship between the approach of a leader, i.e. the leadership style and the context in which they function and act is extremely important. They also argue that the behaviors of the leaders on the basis of investigated literature [4; 5;

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11; 13] can be grouped into three categories: 1) Orientation towards goals - goal orientation is a set of behaviors in which the leader sets the direction and behaves in the way that he / she plays an important role in directing others to accomplish the key goals necessary to achieve certain performance of an organization; 2) Involving - In this category, the focus of the leader remains to provide a strong sense of direction, however, there is a significant focus on the involvement of others (followers) with the aim of setting direction, and to a greater extent in determining the way in which the goals will be achieved; 3) participation - the behavior of the leaders in this category is focused on facilitating others in achieving the nature of the directions and the way to achieve the necessary goals.

Leadership styles are ways in which relationships between leaders and followers and others in the organization are based, i.e. the way through which the leader directs the behavior of the subordinates and the means by which it is used to acquire consent to the desired behavior [12].

Leadership styles are patterns of behavior initiated by the leaders when working with followers. Lewin et al. [7] identified three styles of leadership: autocratic leadership; democratic leadership; and liberal i.e. "laissez-faire" leadership.

Autocratic leadership - in this style of leadership, people know exactly what to do and how to work and always expect the exact instructions to follow. Bhatti et al. [1] argue that in terms of productivity, the autocratic style is most effective, however, Suša [12] states that the stated leadership style in time leads to dissatisfaction with the group climate. Democratic leadership - it is often mentioned as the most effective style of leadership. In a democratic (often referred as participative) leadership, a "democratic leader" makes the final decision, he always invites other team members, followers to contribute and take part in the decision-making process. This way of leadership not only contributes to increasing satisfaction with the work of the followers because they are involved in what is happening, but also contributes to the development of skills and competencies of the followers. Liberal leadership "laissez-faire" leadership style - according to Lewin et al. [7], liberal leadership represents the leadership style in which the leader is nominated and still physically occupies a leadership position, but where more or less avoids the responsibilities and assigned tasks.

Based on the above stated, paper is organized as follows. In section 1 Introductory considerations are presented. In section 2 materials and methods are explained. The section 3 displays results followed by discussion. Finally, conclusions are given at the end of the manuscript.

2 MATERIALS AND METHODS

The survey of leadership styles was carried out in the period from 15.05.2017, until 30.06.2017 in 4 economic entities. The survey of leadership styles was made according to a questionnaire designed by Northouse [9-10].

Of the total number of surveyed leaders was 26 in all four economic entities, there were 65.38% of male leaders and 34.62% of women's leaders. Regarding age, of the total number, there were 15.38% of the leaders of the age from 25 to 30, 26.93% of the leaders of the age from 31 to 45 years and 57.69% of the leaders of the age from 46 to 60 years. Regarding the level of education of the total number of leaders were 19.23% of leaders with college diplomas; 50% of leaders with faculty education and 30.77% of leaders with completed postgraduate studies.

Ranked importance of leadership styles are calculated by assigning the score value for each parameter that is characterized by a set of answers from the survey. By applying this methodology opens the way for the implementation of parametric statistical test for the evaluation of the parameters set by the principle of interval values. The values that are obtained correspond to the rules for applying the above tests. In this way, the commodity is obtained and it is concluded that based on the average values that are in the interval from 6 to 30. By doing so, all parameters are compared, i.e. they are all present in this interval when generalizing the conclusions. By summarizing this way the given ratings the scattered ness of data was avoided, i.e. the compression of the phenomenon itself resulted in precise estimates based on the survey data. By extracting the maximum from the data, new derived indicators were obtained which will provide the best possible way through analysis (ANOVA) to generate information on the reasons for determining the respondents when it comes to leadership styles.

3 RESULTS AND DISCUSSION

Table 1 *Test of normality*

	<i>Kolmogorov-Smirnov</i>		
	<i>Statistic</i>	<i>df</i>	<i>Sig.</i>
<i>Authoritarian</i>	<i>0.161</i>	<i>26</i>	<i>0.081</i>
<i>Democratic</i>	<i>0.147</i>	<i>26</i>	<i>0.155</i>
<i>Liberal</i>	<i>0.156</i>	<i>26</i>	<i>0.106</i>

From Table 1 Kolmogorov-Smirnov's distribution normalization test, it is seen that all three leadership styles meet the normal distribution of probability, which implies the use of parametric statistical tests.

Table 2 ANOVA test of the importance of leadership styles according to the gender of the leaders

		<i>Sum of the square</i>	<i>df</i>	<i>Average of square</i>	<i>F</i>	<i>Probability of error</i>
Authoritarian	<i>Between the groups</i>	2.615	1	2.615	0.641	0.431
	<i>Inside the group</i>	98.000	24	4.083		
	<i>Total</i>	100.615	25			
Democratic	<i>Between the groups</i>	5.213	1	5.213	1.018	0.323
	<i>Inside the group</i>	122.941	24	5.123		
	<i>Total</i>	128.154	25			
Liberal	<i>Between the groups</i>	0.111	1	0.111	0.007	0.936
	<i>Inside the group</i>	406.235	24	16.926		
	<i>Total</i>	406.346	25			

From Table 2 it can be seen that by detecting differences based on average scores, statistical testing is conducted for both genders of surveyed leaders. With the statistical test, gender differences were tested and their influence on the determination for all three leadership styles. These differences are put into a relationship through an F test that gives an explanatory error probability that generalizes the conclusion about random variation or variation that has a natural and systemic foundation in this phenomenon which explains the very importance of half of the surveyed leaders towards leadership styles. The observed differences expressed through average scores for the gender of the respondents are negligible between the group and within the group which can certainly be regarded that no one leadership style is important in relation to others and that variation is accidentally in this social phenomenon and in the work environment. With confidence it can be argued that the phenomenon that defines the examined leader in terms of the importance of leadership does not have significant statistical differences in relation to gender.

Table 3 ANOVA test of the importance of leadership styles according to the age of the leaders

		Sum of the square	df	Average of square	F	Probability of error
Authoritarian	<i>Between the groups</i>	37.025	2	18.512	6.696	0.005
	<i>Inside the group</i>	63.590	23	2.765		
	<i>Total</i>	100.615	25			
Democratic	<i>Between the groups</i>	24.106	2	12.053	2.664	0.091
	<i>Inside the group</i>	104.048	23	4.524		
	<i>Total</i>	128.154	25			
Liberal	<i>Between the groups</i>	31.489	2	15.745	0.966	0.396
	<i>Inside the group</i>	374.857	23	16.298		
	<i>Total</i>	406.346	25			

From Table 3 it can be seen that the detection of differences based on average scores was accessed by statistics testing for each category of age of the surveyed leaders. The statistical test was used to detect differences arise between the age groups and their effect on the determination for all three styles of leadership. These differences are put into a relationship through the F test, which further explains the probability of error by which generalizes the conclusion on random variation or variation that has a natural systemic foundation in this phenomenon which explains the very importance of the age of the surveyed leaders towards leadership styles. The observed differences are shown through the average scores for the age of employees, where the importance of authoritarian leadership can be considered with certainty and that variation has a systematic foundation in this social phenomenon in the working environment ($F = 6.7$, $p = 0.005$). It can be safely argued that the systematic phenomenon that defines the surveyed leader in terms of the importance of leadership differs in relation to all three age groups. After confirming the statistical difference using the ANOVA test, it is approached to determine in which age groups the difference occurred and this is done by the following analysis.

Table 4 Post Hoc test

			Average difference	Std. error	Probability error	95% confidence interval		
						Lower	Upper	
Authoritarian	from 25 to 30 years	from 31 to 45 years	-3.643*	1.042	0.002	-5.80	-1.49	
		from 46 to 60 years	-3.033*	0.936	0.004	-4.97	-1.10	
	from 31 to 45 years	from 25 to 30 years	3.643*	1.042	0.002	1.49	5.80	
		from 46 to 60 years	0.610	0.761	0.431	-0.96	2.18	
	from 46 to 60 years	from 25 to 30 years	3.033*	0.936	0.004	1.10	4.97	
		from 31 to 45 years	-0.610	0.761	0.431	-2.18	0.96	
	Democratic	from 25 to 30 years	from 31 to 45 years	-3.071*	1.333	0.031	-5.83	-0.31
			from 46 to 60 years	-1.833	1.197	0.139	-4.31	0.64
from 31 to 45 years		from 25 to 30 years	3.071*	1.333	0.031	0.31	5.83	
		from 46 to 60 years	1.238	0.974	0.216	-0.78	3.25	
from 46 to 60 years		from 25 to 30 years	1.833	1.197	0.139	-0.64	4.31	
		from 31 to 45 years	-1.238	0.974	0.216	-3.25	0.78	
Liberal		from 25 to 30 years	from 31 to 45 years	-3.143	2.530	0.227	-8.38	2.09
			from 46 to 60 years	-3.000	2.272	0.200	-7.70	1.70
	from 31 to 45 years	from 25 to 30 years	3.143	2.530	0.227	-2.09	8.38	
		from 46 to 60 years	0.143	1.848	0.939	-3.68	3.97	
	from 46 to 60 years	from 25 to 30 years	3.000	2.272	0.200	-1.70	7.70	
		from 31 to 45 years	-0.143	1.848	0.939	-3.97	3.68	

*. The average difference is significant at the 0.05 level.

From Table 4 it can be seen afterwards (post-hoc) analysis, which was conducted through the LSD method. Statistical differences are occurred in younger age groups, which explain the importance of the age of employed leaders and their behavior through the empowerment of authorities. It can be safely concluded that the estimated reasons are increasing with age at most respondents expressed through the authority of the personality who is the leader. The findings of the younger age group are statistically significantly different from the other two older age groups, and on the basis of this, it is concluded that less often the leaders who have a strong personality.

Table 5 ANOVA test of the importance of leadership styles according to the level of education of the leaders

		Sum of the square	df	Average of square	F	Probability of error
Authoritarian	<i>Between the groups</i>	3.017	2	1.509	0.356	0.705
	<i>Inside the group</i>	97.598	23	4.243		
	<i>Total</i>	100.615	25			
Democratic	<i>Between the groups</i>	6.787	2	3.393	0.643	0.535
	<i>Inside the group</i>	121.367	23	5.277		
	<i>Total</i>	128.154	25			
Liberal	<i>Between the groups</i>	47.702	2	23.851	1.530	0.238
	<i>Inside the group</i>	358.644	23	15.593		
	<i>Total</i>	406.346	25			

From Table 5 it can be seen that the detection of differences based on average scores was accessed by statistics testing for each category of level of education of the surveyed leaders. The statistical test was used to detect differences arise between the level of education and their effect on the determination for all three styles of leadership. These differences are put into a relationship through the F test, which further explains the probability of error by which generalizes the conclusion on random variation or variation that has a natural systemic foundation in this phenomenon which explains the very importance of the level of education of the surveyed leaders towards leadership styles. The observed differences expressed through the average scores for the levels of education of the leaders are negligible between the groups and within the group where it is safe to assume that no one leadership style is important in relation to others and that variation is accidental in this social phenomenon in the work environment. It can be safely argued that the phenomenon that defines the surveyed leaders in terms of the importance of leadership styles does not have significant statistical differences in relation to the levels of education.

CONCLUSIONS

Creating an organizational culture and initiating changes in the organization almost always starts from the leader. Therefore, the leaders are those who initiate changes in the organization and who have an influence on creating an organizational culture that will respect the concepts

of sustainable development, especially in terms of preserving natural resources. The culture of one group changes over time and is the result of the most frequent changes in various influencing factors such as business environment, leadership, management practice and formal and informal socialization processes. Also, as research has shown leadership styles have a great importance in applying the concept of sustainable development, and therefore preserving natural resources. Organizations face the challenge of applying the concept of sustainable development and preserving of natural resources, however, this is possible with the active role of leaders. Therefore, a leader in the organization provides the largest contribution in creating an organizational culture where it demonstrates how employees should behave in terms of preserving natural resources and directs followers in the direction of use of resources while respecting the principles of sustainable development. Also, the leader demonstrates to a large extent the conformity of his beliefs and actions with regard to the creation of an organizational culture aimed at preserving natural resources, where employees led by the action of their leader align their behavior towards the preservation of natural resources.

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