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LEADERSHIP STYLES IN THE INNOVATIVE EDUCATIONAL AREA

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Abstract

The mediating role of culture is being tracked by the interaction between the personality and the leadership styles in the innovative school and preschool environment. The research is conducted among 102 people working in the area of the secondary education in the period April 2018 – May 2018. There are used the methods of Cameron Queen, The Big Five and Bass and Avolio, adapted for Bulgarian conditions by S.Karabeliova. There are used numbers of statistic methods and procedures which can establish the interactions between the variables.

Keywords: innovation, culture, cultural practices, leadership styles

1. Introduction

As innovative are defined the radical, and also the progressive changes, seen in products, processes and strategies. The target of the innovative ways is to rise the effectivity, the economy and the satisfaction of the users. This gives a reason to be believed that the innovation can be accepted as an entrepreneurship and creativity. Broadly speaking by innovation is understood as a successful improvement of the social, the economical, the educational, the management and other areas of the social life through a variety of innovations.

The innovation is a new combination of the famous factors or a change with the aim of introducing and using new types of consumer goods, tools, markets and forms of organization. A new idea, which, on one side can find realization from a new technology, improved product or process, offered to the potential customer, and on other side – a new approach, in a form and a method for management, scientific product, which can rise the effectivity. Innovations include all changes, innovations that are first implemented in the environment and bring a particular economic and social benefit.

The term innovation means updating and novation. The innovation is also a process of using knowledge. The Bulgarian legislation emphasizes the issues of innovation in education. In a special ordinance are defined the innovative schools, the innovative processes and the innovative projects of the educational area.

The term <<innovation>> according to the classic definitions, includes:

- process of innovation;

- new idea or method;
- successful use of new ideas;
- Changes that "produce" new aspects of the activity;
- economic or social innovations.

The new product or technology, which has the qualities to reach the consumer, can be called innovation, and also the idea, the best one which hasn't left its creator, like every invention, which not only does not have the potential, but also has no qualities to enter one's production sheet, cannot be attributed to innovation.

According to the context of the EU's "Green Paper on Innovation", innovation is synonymous with effective and successful production, the uptake and exploitation of innovation in the economic and social spheres, and the renewal of old and the emergence of new structures of economic activity and social sphere ". In this sense, innovation can also be introduced in the field of organizational behavior and human resource management.

Innovative behavior is a behavioral initiative of an individual or collective nature, related to the absorption by the social subjects of new ways of working in different spheres of public life on a material or non-material basis. Innovative behavior is a means of delivering social innovation and relates to active behaviors and is seen as a promising way of developing an individual, a collective, and society. Innovative behavior is also perceived as a strategic type of behavior that carries a wide range of opportunities. In various situations there is also the so-called pseudo-innovative behavior, which is characterized by the constant pursuit of ambition and the search for the most effective tactical patterns of behavior, illegal in society.

The main characteristic of the innovation organization is the assumption of innovative behavior and dynamic innovation activity, i.e. sustainable stimulation of innovation processes. An important source of growth is research and their application. Innovation sets the direction for the organization's development, largely defines its strategy, structure and culture.

The innovative behavior is being analyzed in the aspect of the initializing the dominant values and norms of behavior with the purpose of stimulating the innovative activity in the conditions of a stable orientation towards the continuing education, managing-structural changes and dynamically changing area. It is expressed in knowledge, the skills and the purposefully education for assimilating the new, orientation towards the constant education and managing changes, even before the changes in the external environment. The innovative behavior is considered as a part of the innovative culture and as a show of a personal orientation:

- the motives, the skills, the knowledge, the habits, the norms of behavior and the worldview, which determine the attitude of the members of the organization towards the users and the competitors in the area;
- rituals and ceremonies, the language of communication which characterize the relationship between members in the organization and etc;
- the dominant cultural values, such as the quality of work, leadership, myths and legends that are considered important in organizational life.

At this point of view, the innovative culture is looked at as a leader for the acceptance of the new ideas, readiness and the capability for their realization.

It forms with the time passing by. "The idea for a managing culture has an abstract character, because it can't be seen or felt, but it appears and it spreads everywhere and influences on everything, which happens in the organization ... dynamical system term, the culture practically

influences over every process in the organization events.” (Karabelyova 2012). Thus, organizational culture can be considered both as a result and as a process directly correlating with different forms of leadership. A number of studies unambiguously link organizational leadership with organizational culture and practices (Hollander, 1985; Bass, 1981; Yammarino, Dubinski, 2006), with a wide range of skills to address organizational challenges (Ellis et al, 2013), by practicing specific behaviors and qualities in the organization, such as, acquisition of knowledge, strategic thinking, communication skills and development of others (Sindell & Hoang, 2001).). Leadership as a factor of organizational behavior is understood to be the "process of goal-giving (meaningful direction) to collective efforts leading to its achievement" (Jacobs & Jaques, 1987), as "ability to influence the group to achieve goals of the organization” (Robbins, 2003) and “the creation of a world, which people want to belong to.” (Dilts, 2002). House on his side thinks, that “the leadership is the quality of a person to influence, to motivate and to give opportunity to others to contribute to the efficiency and success of the organization” (House, 1999, p.184). In recent years, there has been a great revival of research into charismatic and transformational leadership as effective management styles. Indeed, the most capable leaders - charismatic and transformational - are those who can make the desired social change happen; however, such leaders are capable of bringing unprecedented damage to society as a whole (Antonakis, 2009). However, without taking into account the cultural features, some specific manifestations in the organizational behavior of the employees as well as in the relations between the people cannot be understood.

Moreover, these difficulties arise when looking for an explanation of the effectiveness of one or another leadership style realized by a separate leader or management team. It turns out that these difficulties are due to the neglect of the influence of the environment in which they occur relationship leader - follower environment, much of which materialized those basic cultural elements that ultimately determine the shape of the interaction, and largely - the result of it. It is to the disclosure of the sources of this influence is directed this study whose primary objective is based on theoretical assumptions by different authors and their own empirical research to reveal the mediating role of the types of culture in the educational environment under the influence of personality on leadership styles . The achievement of the stated goal was achieved by developing a theoretical model of the interaction of the studied constructs, based on the contemporary theories about the organizations and the organizational behavior; using robust psychological tools relevant to the problem investigated and analyzing the data obtained; examining the mediating role of culture in the relationship between personality and leadership styles.

For the empirical survey, 109 persons, working in three different educational institutions in Sofia, were interviewed. The subject of the study is the manifestation of the leadership styles of the academic guides, in the specific innovative educational environment. The variables in the study are the types of culture, the leadership styles and the features of the personality. It is based on the assumption that the dominant culture, as an environment for the functioning of the organizations as a whole and of the educational structures in particular, as well as the features of the personality influence to a certain extent the manifestations of particular leadership styles.

2. Methods

To test the model it's used the combination of the method of grading the leadership styles in the new paradigm of the transforming leadership of A. Bass and A. Avolio; The Big Five and the method for measuring the organization culture from K. Cameron and R. Queen.

At the end of the 20th century, diagnostic methods for measuring and evaluating organizational culture were widely recognized. The method used in the study is based on the so-called Cameron and Quinn's "Framework of Competing Values". In this construction the organizational culture is projected into two dimensions: (a) flexibility, discretion and dynamism → stability, order and control and (b) inner orientation, integration and unity of external orientation, differentiation, competition and rivalry. The space in these dimensions extends from organizational cohesion and coherence to lack of unity and independence and is subdivided into four quadrants in each of which specific indicators of organizational effectiveness are defined, which in turn characterize four types of organizational culture: clan, adocratic, market and hierarchical.

Clan culture resembles a type of organization where people share a lot of each other and feel like a big family, the environment can be managed through teamwork, and the main task of managers is to develop qualities such as loyalty, attachment, concern and willingness to participate yours. Lead - subordinate relationships can be described as advisory and supportive.

The second type of culture is defined as adhocracy. It is characterized by basic prerequisites that define innovative initiatives as a key to success where activities related to the production of new products or services are developed. The environment is driven by the promotion of creativity, entrepreneurship, risk-taking, flexibility and adaptability, as the situation is saturated with uncertainty, lack of clarity and information congestion. Power passes from one person to another depending on the problem solved at the moment. The leader is an innovator and an experimentalist. Success depends on the development of unique and original products and services. It is possible that adhocracy culture exists as a sub-unit in a large organization with another type of dominant culture.

The third type of culture, the market, refers to organizations that they operate through economic market mechanisms, money exchange turns competitiveness into an asset. They are externally oriented and focus on suppliers, customers, contractors, and in the long run such organizations focus on competitive activities and organizational goals. The underlying prerequisites in organizations with market culture are related to the perception of hostility of the environment and the preferences of consumers where management leads the organization to results and profit. Therefore, leaders are firm and demanding because they believe that success and victory are what maintains the organization's integrity.

The fourth type of culture is the hierarchical one that stands out with a formal and strictly structured workplace situation and control. Key values are related to maintaining efficiency, trustworthy, fast and smooth running production where managers are good coordinators and organizers. In the long run, the organization is geared towards stability, predictability and efficiency. Leaders maintain the integrity of the organization through formal rules and policies.

The leadership styles are measured with the method of B. Bass and B. Avolio (Multifactor Leadership Questionnaire - Bass & Avolio, 2004), where four types of leadership components are identified: (1) idealized influence with allegations, e.g., "People are proud to associate with me," transforming leaders behave in a way that leads to admiration, trust and respect for them ; their followers want to imitate them, (2) inspiring motivation: "It offers interesting ideas about what we can do." The leader encourages and inspires people with enthusiasm and optimism about the vision of future development, (3) intellectual stimulation: to reconsider ideas that have never questioned beforehand "transforming leaders encourage their followers to doubt assumptions, rethink problems and approaches to old solutions, seek new ways to be creative and new torsk and (4)

individual consideration (respect) or individualized attention, "paying particular attention to people who seem rejected" the leader actively develop the potential of their employees by creating new opportunities for development and mediation. The Lead Styles questionnaire used emphasizes the leader-follower relationship. The task of the leader is to influence and inspire people who expect guidance and support on his part. What divides true charismatic leaders from other people is awareness and concern about the needs of others.

In psychology, there is a relative agreement on the personality traits and their hierarchy in the developed five-factor model BIG 5 or O-C-E-A-N: Openness - O, Goodwill - C, Extraversion - E, Acceptance - A, Neuroscience - N or emotional stability. People in different cultures "design" a person according to the five-factor model. There are theories that personality development continues until the end of the third decade of life (Costa amp; McCrae, 1994). These five key features are closely related to the cooperative activity within the organization and directly affect the performance of the service functions and duties. Apart from these theories, there are others that reflect to varying degrees the processes of personality formation and development.

3. Results

In accordance with the median model of verification, the relationships between the independent variable (personality), the mediator variable (organizational culture) and the criterion variable (leadership style) are subjected.

It turns out that organizational culture, as an environment in which individuals operate, stimulates leadership to varying degrees. The clan culture creates the conditions for the optimal appearance of leaders in which the idealized influence and inspirational motivation as a style are inherent. Followers with enthusiasm follow their ideal embodied in the leader and are inspired by it. To a large extent, it exhausts their need for social relationships. It also implies individualized attention and the use of conditional prizes, such as stimulating optimal appearances.

Adhocracy culture strengthens the preferences and manifestations of inspiring and intellectual motivation in communicating with followers, unlike the hierarchical culture that facilitates individualized attention, the management of exceptions, and the manifestations of liberal leadership.

The market culture, characteristic of organizational behavior, introduces specific rules of relations in the organization but, to a large extent, prevents the manifestations and is largely incompatible with liberal leadership.

Table 1. Influence of types of culture on leadership styles

Types of culture	Leadership style			
	R2	B	T	p
Clan	.65	.65	5.58	.000
	Inspirational motivation			
Clan	.60	.40	3.29	.001
Adocratic		.36	2.51	.013
	Intellectual motivation			
Adocratic	.65	.41	3.06	.003
	Individual attention			
Clan	.73	.47	4.50	.000
Hierarchical		.29	2.52	.013
	Conditional prizes			
Clan	.68	.25	2.21	.029
	Management of the excuses			
Hierarchical	.58	.43	3.18	.002
	Liberally leadership			
Market	.47	-.40	-2.42	.018
Hierarchical		.50	3.38	.001

From theory and practice it is known that the style inherent to the leader is a reflection of and reflects the characteristics of his personality. The following table shows both the direct interrelationships between personality and leadership styles (in numerator), and the same interrelations but under the influence of different types of culture (in denominator).

Table 2. Interactions between personality and leadership styles under the influence of organizational culture

Personality Style	Extravagance				Benevolence				Good faith				Neuroticism				Openness			
	C	A	M	H	C	A	M	H	C	A	M	H	C	A	M	H	C	A	M	H
Ideal impact	<u>.31</u>				<u>.66</u>				<u>.43</u>				<u>-.36</u>				<u>.28</u>			
	.15	.12	.23	.25	.51	.60	.64	.63	.38	.39	.43	.40	-.28	-.37	-.41	-.41	.14	.14	.21	.23
Inspirational motivation	<u>.33</u>				<u>.54</u>				<u>.39</u>				<u>-.21</u>				<u>.27</u>			
	.20	.10	.25	.28	.35	.43	.50	.48	.32	.35	.39	.35	-.10	-.22	-.27	-.25	.14	.09	.19	.22
Intellectual motivation	<u>.35</u>				<u>.54</u>				<u>.35</u>				<u>-.10</u>				<u>.32</u>			
	.23	.08	.24	.30	.35	.42	.50	.48	.28	.30	.37	.31	.05	-.08	-.17	-.14	.20	.12	.22	.27
Individualized attention внимание	<u>.29</u>				<u>.57</u>				<u>.33</u>				<u>-.11</u>				<u>.25</u>			
	.11	-.02	.16	.21	.35	.47	.54	.53	.24	.27	.34	.28	.08	-.10	-.19	-.17	.08	.02	.13	.17
Conditional awards	<u>.34</u>				<u>.43</u>				<u>.28</u>				<u>.02</u>				<u>.27</u>			
	.20	.04	.20	.28	.18	.26	.36	.34	.18	.20	.29	.22	.20	.06	-.06	-.01	.14	.04	.13	.20
Manage exceptions	<u>.21</u>				<u>.51</u>				<u>.36</u>				<u>-.11</u>				<u>.23</u>			
	.07	-.03	.11	.13	.34	.41	.47	.45	.29	.31	.36	.32	.01	-.09	-.16	-.15	.11	.06	.14	.16
Liberal leadership	<u>.09</u>				<u>.41</u>				<u>.23</u>				<u>-.08</u>				<u>.14</u>			
	-.02	-.03	.04	.02	.28	.36	.39	.35	.16	.19	.22	.17	.01	-.07	-.10	-.10	.04	.05	.09	.08

Note: The numerator shows the correlation coefficients between personality and leadership styles, and in denominator the correlation coefficients between personality and leadership styles under the control of every aspect of organizational culture: C – Clan; A – Adocratic; M- Market; H – Hierarchical.

It is obvious that some personal traits imply the manifestations of certain leadership styles to a greater extent than others. It is also clear that neurotic manifestations are contraindicated to the whole palette of styles by hindering their manifestations, especially in terms of idealized influence and inspiring motivation. Some of the features, such as benevolence and good faith, for example, create a suitable environment for manifestation of the whole range of leadership styles. Unlike individuals with markedly extravagated behavior, they are not inclined to exercise liberal leadership. The same in a context of an adherently ad-hoc culture, they are not inclined to apply conditional prizes or to seek to manage exceptions. And also to apply idealized influence, individual approach and individualized attention. It can definitely be said that the extracurriculums with difficulty take leadership positions in an adherent environment. The data show that neurotics are inclined to a clan-oriented environment to experiment with conditional awards, but they all avoid using or are unable to apply inspiring motivation.

4. From the experience of innovative educational institutions

I. Purpose of innovation.

Innovation is aimed at:

- Expand the scope of innovative methods at school by building a virtual STEM lab. Improve the model of the class by introducing integrative modules from the 9th and 10th grade curriculum related to health and the sustainable environment.
- Enhance the interactive learning environment by integrating technology with the content of science and mathematics to facilitate the learning of the material. Practical direction and development of the skills of the 21st century, achieved through co-teaching, digital and integrity.

Through information exchange and feedback technology, governance is being promoted and the culture of the organization is enhanced. A Creative Innovation Workshop is set up to motivate the school community.

II Motives for the proposed innovation.

Integrated learning content from the mathematical sciences and IT acquires key competences of the 21st century under the European Reference Framework.

The interest, activity and creativity of pupils is enhanced by expanding innovative teaching methods, including learning by doing and reorganizing the environment. The choice of profiling subjects in upper secondary and STEM careers through practical experience is realized. The interdisciplinary approach and BPO help to understand content, improve the environment, and develop critical thinking.

The professional culture of teachers is being increased. Teams of teachers co-operating through different roles in class are formed. Implementation of co-teaching at the first high school stage and engagement of new teachers.

The center consists of 4 halls - virtual, laboratory, technological and digital creativity. Virtual Room is equipped with z new-generation Space Stations that visualize processes and phenomena in 3D, and make the Biology, Chemistry, Physics and Mathematics courses interesting and understandable for students. Laboratory Hall is designed to perform experiments and exercises without which the process of science education would not be effective. Technological and Digital Creativity will develop digital skills and meet students' needs for a new way of teaching based on wider use of ICT, reorganized learning environments, integrity, and a new mentor role in the process of learning by doing.

The STEM Center allows for a variety of training that develops skills such as analyzing, examining the situation, critical thinking, and as the most important is the flexible ability to solve problems. The professions of the future will require a combination of specialized knowledge in the field of STEM, but also personal qualities such as empathy and design thinking.

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