

Values and social capital as predictors of attitudes towards innovation

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January 2013



The research leading to these results has received funding from the European Community's Seventh Framework Programme (FP7/2010-2.2-1) under grant agreement n° 266834

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Abstract

This study examines the relationship of values and social capital with attitudes towards innovations. The respondents (N = 1238) were asked to fill in a questionnaire, which included the Schwartz value survey SVS-57, a self-assessment scale of innovative personality traits [Lebedeva, Tatarko, 2009], and a method of assessing social capital [Tatarko, 2011]. The results of the correlation analysis revealed a positive correlation between values of Openness to Change and a positive attitude to innovation. It was also found that the components of social capital (trust, tolerance, perceived social capital) positively correlated with attitudes to innovation. The empirical model obtained by means of a structural equation modeling generally confirmed the hypothesis of the study and demonstrated the positive impact of the values of Openness to Change and social capital on attitudes towards innovations in Russia.

Keywords:

creativity, innovation, attitude to innovation, social capital, perceived social capital, individual values

JEL Classification:

A13.

1.INTRODUCTION

In today's world, the transition of national economies into an innovative phase of development is a necessary condition for economic growth and prosperity. In consistency with this purpose, many countries develop national innovation systems, increase public and private investment in research and development and form special clusters of innovation such as free economic zones, techno-parks and centers of excellence. However, as a rule, little attention is paid to the analysis of national cultural identity, and consequently the planned processes are impeded by an unaccounted factor; the culture and social context in which innovations are designed and disseminated. In Russia, the proportion of innovative products is extremely smaller compared to other European countries. And here, in our opinion, the impediments to innovation development in general and to the market in particular are not technology-related, but rather stem from cultural implications.

According to scientists, the innovation process must involve the organizational and economic, social and cultural conditions of innovation, as it encompasses a certain interaction between units and organizations, the training and retraining of specialists, planning and designing incentive schemes and overcoming adverse effects [Chepurenko, 2004]. Innovations can be divided into two key groups: technological innovations and social innovations. Social innovations differ from technological innovations in that they have a closer relationship to society and culture and that their application is more dependent on user characteristics. Social innovation is also a result of a change in 'game rules' and typical models of behavior. It is believed that social innovation is especially difficult to implement since the uncertainty of its parameters and results allow the simulation of the required changes without its actual implementation, which is often the case in Russia. What determines the reluctance towards social innovations and resistance to them? First of all, the subjects of these innovations are people themselves, their status, habits, attitudes, behavior, values and beliefs. The second factor is the traditional lifestyle of society, its social institutions, current economic and political systems and models of human relations. Behind all these is culture as a meaning generating construct (values and implicit theories) and features of social psychology.

2.THEORETICAL BACKGROUND

2.1. Creativity and Innovativeness

Modern scientific literature devoted to the study of creativity and innovativeness frequently addresses the similarities and differences between these concepts. Creativity is the intellectual and social process [Lazzarato, 1996], boosted by conscious or unconscious ability of generating ideas, concepts, and

associations. Innovation is the successful exploitation of new ideas; it is a profitable outcome of the creative process, which involves generating and applying products, services, procedures, and processes that are desirable and viable. Naturally, people who create and people who innovate can have different attributes and perspectives [Serrat, 2009]. Creativity is often viewed as a certain part of innovation. Thus, West, examining the subjects of innovative activity, noted that innovators are people with enhanced creativity and innovativeness, capable of producing new ideas and applying them [West, 2004]. Therefore, innovativeness presupposes creativity, but creativity per se is not enough to demonstrate persistent capacities for innovation [Styhre & Börjesson, 2006]. Creativity precedes innovation. Creativity does not occur exclusively in a person's head but in interaction with a social context. For any successful organization, prone to innovations, it is essential to have knowledge of an organizational context and inter- and intra- organizational relationships, including the creative potential of the individuals and teams in general.

For years, psychologists in the West and ordinary people ascribed creativity only to personal and not to social or cultural factors. Therefore, studies of creativity focused on personality traits [Barron & Harrington, 1981; Helsen, 1996], cognitive processes [Sternberg, 1988] and the life paths of creative people [Gardner, 1993]. In Western psychology, creativity is most often defined as the attribute of an individual or a process capable of providing a new, suitable, nonstandard solution to a problem [Mayer, 1999]. Empirical studies on creativity initially focused on the individual, and many recent papers continue to explore the features that distinguish creative people from the rest. Amabile [1996, p. 90] lists the creative personality traits that appear repeatedly in scientific literature:

- High degree of self-discipline in matters concerning work.
- Ability to delay gratification.
- Perseverance in the face of frustration.
- Independence of judgments.
- Tolerance for ambiguity.
- A high degree of autonomy.
- An absence of sex role stereotyping.
- An internal locus of control.
- A willingness to take risks.
- A high level of self-initiated, task-oriented striving for excellence.

There is some evidence that cultures can encourage or frustrate creativity. Arieti [1976, p. 303] studied cultural influences on creativity and suggested that the potential for creativity is deemed much more frequent than its occurrence. Some cultures promote creativity more than others, and he labeled these cultures as 'creativogenic'.

The study of innovation has evolved drastically over the last forty years. At present, innovation is viewed

as a process, the success of which rests upon interactions and exchanges of knowledge. This understanding of innovation has generated the following consequences: firstly, innovation is no longer conceived as a discrete event involving only the development of a technical solution, but as a process also involving social interactions. Secondly, innovation is no longer explained by the sole combinations of tangible forms of capital (physical, financial and etc.), but also by combinations of intangible forms of capital, especially social capital. In studies of innovation, much attention has been paid to the examination of the process and its resulting components. However, it is not less important to study the characteristics of an agent of innovation, which are related to his/her ability to implement and evaluate these ideas. These traits are labeled as "innovativeness." In a general sense, innovativeness refers to the ability to adopt and apply new ideas and the creation of new products [Thompson, 1969; Styhre & Börjesson, 2006; Rogers, 2003; West, 1997]. Thus, innovation is the successful implementation of emerging creative ideas, while innovativeness reflects the ability to apply these ideas [Hennessey & Amabile, 2010]. Some authors view innovativeness as the ability to launch new ideas into a system by importing these ideas from outside the system and as the ability to effectively present these ideas to the public [Grewal, Mehta, and Kardes, 2000; Larsen and Wetherbe, 1999].

Today, there are a number of discussions on the classification of subjects of innovative activity. One of the most popular classifications of participants of the innovation process - the theory of Diffusion of Innovations proposed by E. Rogers [2003] - categorizes them as innovators directly involved in the process and a majority (adopters), who are the recipients of innovations:

- Innovators are characterized by creativity and the ability to take risks for the sake of new ideas
- Early adopters usually accept new ideas immediately and are able to disseminate innovative technologies among other adopters
- Early majority, who accept an innovation after a while
- Late majority, who may take quite a long time to adopt new technologies, consisting mainly of skeptics
- Laggards, who are often conservative and try to stick to "traditions".

The Diffusion of Innovations theory seeks to explain how, why and at what rate new ideas and technologies spread through cultures, groups and organizations [Rogers, 2003]. The Diffusion of Innovation is a process by which new ideas, technologies, and offers spread via communication channels among the members of a social system within a certain period of time. A social system should be understood as a group of independent units engaged in a common process. This theory defines innovation as an idea or object that is perceived as new by an adopter. The process of emergence and implementation of new ideas and technologies is not always smooth. In order for them to function freely in society, the system of relationships and values of the society must be in compliance with the conditions of introducing and spreading innovations. Therefore, it is necessary to examine the social and cultural determinants of

innovation and innovativeness.

2.2. Socio-cultural predictors of innovativeness

Studies in cross-cultural psychology and related disciplines indicate that basic cultural values influence not only economic development, health, population, life expectancy, perception of well-being and happiness, but also creativity and innovative dispositions of an individual [Inglehart & Baker, 2000; Diener et al., 2000; Triandis, 1994; Shane, 1992, 1995]. However, the relationship between cultural values on the one hand, and innovation and creativity of the members of this society on the other hand, is poorly studied. Shane carried out a study and described its results in an article titled "Why do some societies invent more than others?" [Shane, 1992]. He identified two cultural dimensions affecting the degree of innovativeness of society: the degree of hierarchy (horizontal-vertical) of social structure, and individualism (the priority of individual goals over group goals). The results of studies in the U.S. [Shane, 1992] showed that individualistic and non-hierarchical ("horizontal") societies are more creative and more innovative. This is not surprising, since the psychological characteristics of innovation require a certain environment; equality in relations, equal opportunities for all, promotion of individual development, presence of some degree of freedom, good communications, and in particular, the opportunity to freely express one's thoughts and feelings. Another study also carried out in the USA [Dollinger, Burke & Gump, 2007] revealed that the more creative students differ from their peers in their value systems. Performance on test items in new creative ways positively correlated with such individual values (according to Schwartz) as Self-Direction, Stimulation and Universalism and correlated negatively with the values of Tradition, Security and Power. This study confirmed the initial assumption that creativity depends on the value priorities of an individual. A study by Lebedeva, conducted on samples of Canadian, Russian and Chinese students [Lebedeva, 2011] highlighted the cross-cultural differences in individual values of Russian, Canadian and Chinese students. The Russian students preferred values of Openness to Change and Self-Enhancement; the Canadian students preferred the values of Openness to Change and Self-Transcendence; and the Chinese students favored the values of Conservation and Self-Transcendence.

According to Schwartz, the value-oppositions are central to a person's self-conception and motivate a person towards corresponding behavior in terms of benefit / cost [Schwartz, 2006]. Within this paradigm, behavior consistent with the values of Conservation may lead to social approval, and the cost of rejecting these values is social disapproval or threat to security. Openness to Change values motivate our quest for inner freedom, creativity, curiosity, pleasure, and the rejection of these values indicates rejecting development and expression of individuality. Thus, it can be assumed that modernization contributes to the dynamics of value preferences from the pole of Conservation to the pole of Openness to Change. According to foreign and domestic research as well as the theoretical model of Schwartz values, the

values of Openness to Change (Self-Direction, Stimulation) and the value of Universalism contribute to the creativity and innovativeness of an individual.

Scientific literature recognizes the importance of social capital as a key asset in the manifestation of innovation at organizational level [Calantone, Cavusgil, & Zhao, 2002; Hult, 2002; Hult, Hurley & Knight, 2004; Lu & Shyan, 2004; Song & Thieme, 2006]. For example, organizations face the complex structure of the environment, increasing environmental pressures, global markets with different rules and increase in competition. Product life cycles have dramatically shortened; consumers are a demanding community and want something new every day. Thus, firms have to become more skilled in the production of innovations, since their products and services remain in the market for a shorter period time. The ability to change, including the ability to innovate, is essential for this process. The concept of human capital preceded the development of the notion of social capital (Putnam, 1993; Coleman, 2001). Social capital can be defined as a resource contained in social networks and accessible to its actors. Therefore, this notion has two important components: (1) resources that social relations contain, but not people, and (2) access for actors to such resources (Hauberer J.,2011)

The contribution of social capital to innovation lies in the fact that it reduces transaction costs between firms and other actors, bargaining and decision costs, and policing and enforcement costs [Maskell, 1999]. Social community as an integrity begins to possess social capital as a set of instruments for achieving its aims: compliance without sanctions, self-organization (communities, solidarity) and political activity. But the basis of social capital is people's relations, their attitude to the closest surrounding (trust, tolerance), attitude to the community as a whole (perceptible social capital, social trust), and their attitude to their belonging to this community (identity). All these types of attitude make up the social-psychological capital of the group. They are contributed to the group by separate people but belong to the group as a whole (Tatarko, 2012). Firms with a large stock of social capital will always have a competitive advantage. This advantage becomes even bigger when globalization augments the need for coordination between and among firms [Maskell, 1999].

On a social level, social capital is connected to characteristics of social structure that can increase the efficiency of social development. They are: trust, interactions standards and social network density. Dakhli and de Clercq describe the influence of social capital on innovation as forming the innovative milieu [Dakhli & de Clercq, 2004]. Innovations are not implemented and disseminated in isolation. There has to be interaction with the environment. First of all, innovation significantly depends on the spread of information, especially in high-technological fields [Fukuyama, 2000]. Further specialization and the creation of more complex technologies demand cooperation. Networks consist of ties between people and, through them, between firms too. These ties facilitate and accelerate information exchange and also lower the costs of information search. Connecting different creative ideas and thoughts can lead to

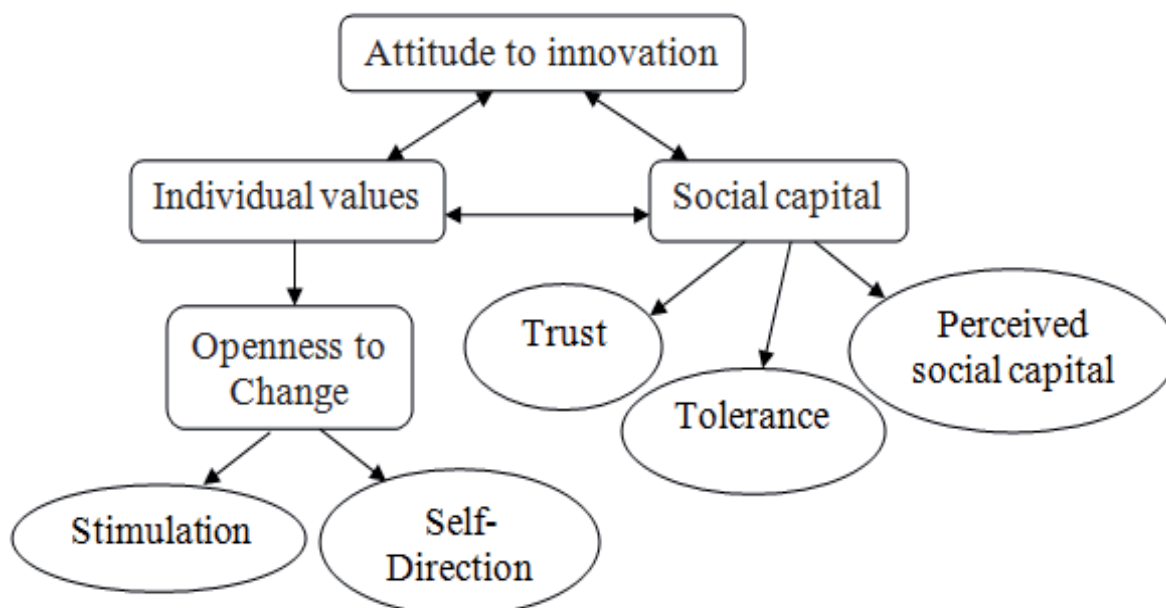
unusual combinations and radical innovations [Subramaniam, Youndt, 2005]. In addition, networks not only facilitate the innovative behaviour itself, but also help and accelerate the distribution of changes [Abrahamson & Rosenkopf, 1997]. However, the information exchange via networks cannot work without interpersonal trust [Tsai & Ghoshal, 1998].

Trust can influence innovation through many mechanisms. First, the higher the general trust, the lower the monitoring costs of possible malfeasance or non-compliance by partners [Keefer, 1997; Tamaschke, 2003]. Consequently, higher trust enables firms to spend more time and finances on innovative activities. Secondly, more trust encourages investors to invest more in big projects [Akçomak et al., 2006]. Thirdly, in case of an increase in general trust, human capital is more important [Knack & Keefer, 1997]. Thus, the labor force is likely to have higher skills and education that are needed for innovative activity. Fourthly, trust between firms and the development of cooperation may lead to more radical innovative projects [Ackomak et al., 2006].

Diverse forms of social capital influence the decision to innovate and, more importantly, an increase in social capital contributes the likelihood of innovation in firms. The level of social capital determines the radicalness of innovation. Social capital taking the form of research network assets contributes more than any other explanatory variable to explaining the radicalness of innovation. The second variable that exerts the strongest impact on the radicalness of innovation is the number of different advanced technologies employed by firms for production [Landry, Amara, Lamari, 2002]. The study by Subramaniam and Youndt [2005] showed that social capital influenced positively both the frequency and the radicalness of innovative behavior. Ackomak and ter Weel [2006] analyzed European regional-level data and found that trust had a positive influence on the number of patent applications.

The analyzed literature on the relationship between social capital and attitudes to innovation allow us to assume that such components of social capital as trust, tolerance, perceived social capital, which characterizes social capital in the theoretical approach developed by IRTL SCI [Tatarko, 2011], contribute to creativity and a positive attitude to innovation. The analysis of scientific literature on the socio-cultural factors of innovation formed the basis for constructing a theoretical model of the relationship of individual values and social capital with attitudes to innovation, presented in Figure 1, and for the hypotheses of empirical research.

Figure 1. Theoretical model of the relationships of values and social capital with attitude to innovation



General hypothesis: Individual values of Openness to Change and social capital contribute to a positive attitude towards innovation

Alternative hypotheses:

1. Values of Openness to Change promote a positive attitude towards innovation.
2. Trust, Tolerance and Perceived social capital contribute to a positive attitude towards innovation.
3. Values of Conservation and Self-Direction, expressing the interests of a group, positively correlate with the dimensions of social capital.
4. Social Capital, both directly and through the value of Openness to Change, positively influences the attitude towards innovation.

3. THE EMPIRICAL EXAMINATION OF THE RELATIONSHIP OF VALUES AND SOCIAL CAPITAL WITH ATTITUDES TOWARDS INNOVATION

The aim of the research: identifying the relationship of values, social capital and attitudes towards innovation.

Objectives of the study:

1. To identify the relationship between Schwartz value; oppositions and attitudes towards innovation.
2. To identify the characteristics of the relationship between social capital and attitudes towards innovation in Russia.
3. To construct an empirical model of the relationship of values and social capital with attitudes towards innovation in Russia, using structural modeling with latent variables (SEM).

Methodology

The participants of the study. The study involved people from four federal districts (Central, North Caucasus, Far East, Volga), aged from 19 to 40. The description of the sample is presented in Table 1. A total of 1238 respondents participated in the study.

Table 1 - The composition of the sample

	Number	F (num)	F (%)	M (num)	M (%)	Age Mean	Age Mode	Age Median
Russian respondents	1238	641	52%	597	48%	34	19,5	32

The study used a socio-psychological survey. For this a special questionnaire was developed, which included both existing and new research methodologies developed in the International Research and Training Laboratory of Socio-Cultural Research at the HSE.

The questionnaire included the following methods:

1. Schwartz's value survey -SVS-57. Schwartz's value survey for analyzing cultural value orientations translated into Russian by Lebedeva and adapted in a number of studies [Lebedeva, 2000; Lebedeva, Tatarko, 2007]. We calculated the arithmetic means of the four value oppositions, which, according to Schwartz's theory, include 10 groups of individual values (Schwartz, 1992.) Conservation values: (Security, Conformity, and Tradition) contradict with Openness to Change values (Stimulation, Self-Direction, and Hedonism). Self-Transcendence values (Universalism and Benevolence) contradict with Self-Enhancement values - emphasis of the "self" (Power, Achievement, and Hedonism).
2. The self-assessment scale of innovative personality traits (Lebedeva, Tatarko, 2009) was used to analyze the innovative traits. Respondents were presented with brief descriptions of different people (a total of 12 statements), which they had to assess according to the degree of similarity with themselves on a 5-point scale (from "not at all like me" to "very much like me"). Furthermore, in accordance with the key, the average values on the scales "Creativity," "Risk for the sake of success", and "Focus on future" were calculated. The general index of innovativeness was calculated as the average of these scales.
3. The method of estimating social capital was developed by the International Research and Training Laboratory of Socio-Cultural Research [Tatarko, 2011]. In this case, the following parameters had to be evaluated: a) perceived social capital, b) the level of interpersonal trust, and c) tolerance towards representatives of other groups.
 - a) Perceived social capital. This indicator is calculated as the arithmetic mean of the five items assessing perceived social capital of an individual in different areas. The

respondents were asked to evaluate the typicality of behavior ("trusting each other", "behaving respectfully towards each other", "treating people around as equals", "being prepared to share material things", "being prepared to share thoughts, ideas, feelings of other people who need it", "seeking to understand and support other people") for the people around them on a 5-point scale (from 1 -" not typical " to 5 -" very typical").

б) General level of trust. This indicator was measured using a Likert scale from 1 ("one must be careful with people") to 7 ("most people can be trusted") and allowed to evaluate to what extent an individual was inclined to trust other people. This item is adopted from the World Values Survey.

в) Tolerance towards representatives of other groups. This indicator is calculated as the arithmetic mean of 4 items assessing tolerance. Respondents had to rate the degree of tolerance of the people around them towards the representatives of certain groups (ethnic minorities, other religions, sexual minorities, dissidents (people with different political beliefs)).

4. RESULTS OF THE STUDY

In order to test hypothesis 1, Spearman's Rank Order correlation of the relationships between personal values and attitudes to innovation was carried out (see Table 2, only significant relationships are indicated).

Table 2. The relationships between values and iattitudes towards innovation (N=1238)

	Risk for the sake of			
	Creativity	success	Focus on the future	Innovativeness index
Openness to Change	.38 ^{***}	.41 ^{***}	.17 ^{***}	.40 ^{***}
Conservation	-.24 ^{***}	-.28 ^{***}	-.15 ^{***}	-.29 ^{***}
Self – Transcendence	-.07 ^{**}	-.19 ^{***}		-.13 ^{***}
Self- Enhancement		.25 ^{***}	.10 ^{***}	.16 ^{***}

* p<0.05; ** p<0.01; *** p<0.001

From the data presented in Table 2, we can note that the value of Openness to Change had a strong positive correlation with all the variables that reflect the attitude to innovation. The value of Conservation

had a strong negative correlation with all the indicators of the attitude to innovation. Self-Transcendence negatively correlated with Creativity, Risk for the sake of success and the Index of innovativeness. A strong positive correlation with the value of Self-Enhancement with Risk for the sake of success, Focus on the future, and Innovativeness index was also revealed.

Next, to test hypothesis 2, we examined the obtained relationship between the components of social capital and attitudes to innovation (see Table 3)

Table 3. The relationship between the indicators of social capital and attitudes towards innovation (N=1238)

	Risk for the sake of			
	Creativity	success	Focus on the future	Innovativeness index
General level of trust			.12 ^{***}	.07 ^{**}
Perceived social capital	.11 ^{***}	.14 ^{***}	.13 ^{***}	.16 ^{***}
Tolerance	.11 ^{***}		.12 ^{***}	.10 ^{***}

* p<0.05; ** p<0.01; *** p<0.001

Table 3 shows the revealed correlations between the indicators of social capital and attitudes towards innovation. Thus, a positive correlation of the general level of trust with Focus on the future and the Index of innovativeness was found. Strong positive correlations of the indicator of "Perceived social capital" with all the components of the construct "Attitude to innovation" (p <0.001) were also revealed. Tolerance was positively associated with Creativity, Focus on the future and the Index of innovativeness. Below are the results of the correlation analysis of values and social capital.

Table 4. The relationship between social capital and value - oppositions (N=1238)

	Openness to Change	Conservation	Self-Transcendence	Self-Enhancement
General level of trust	-.06 [*]	.09 ^{***}	.21 ^{***}	-.15 ^{***}
Perceived social capital			.12 ^{***}	-.10 ^{***}
Tolerance	-.06 [*]		.13 ^{***}	-.15 ^{***}

* p<0.05; ** p<0.01; *** p<0.001

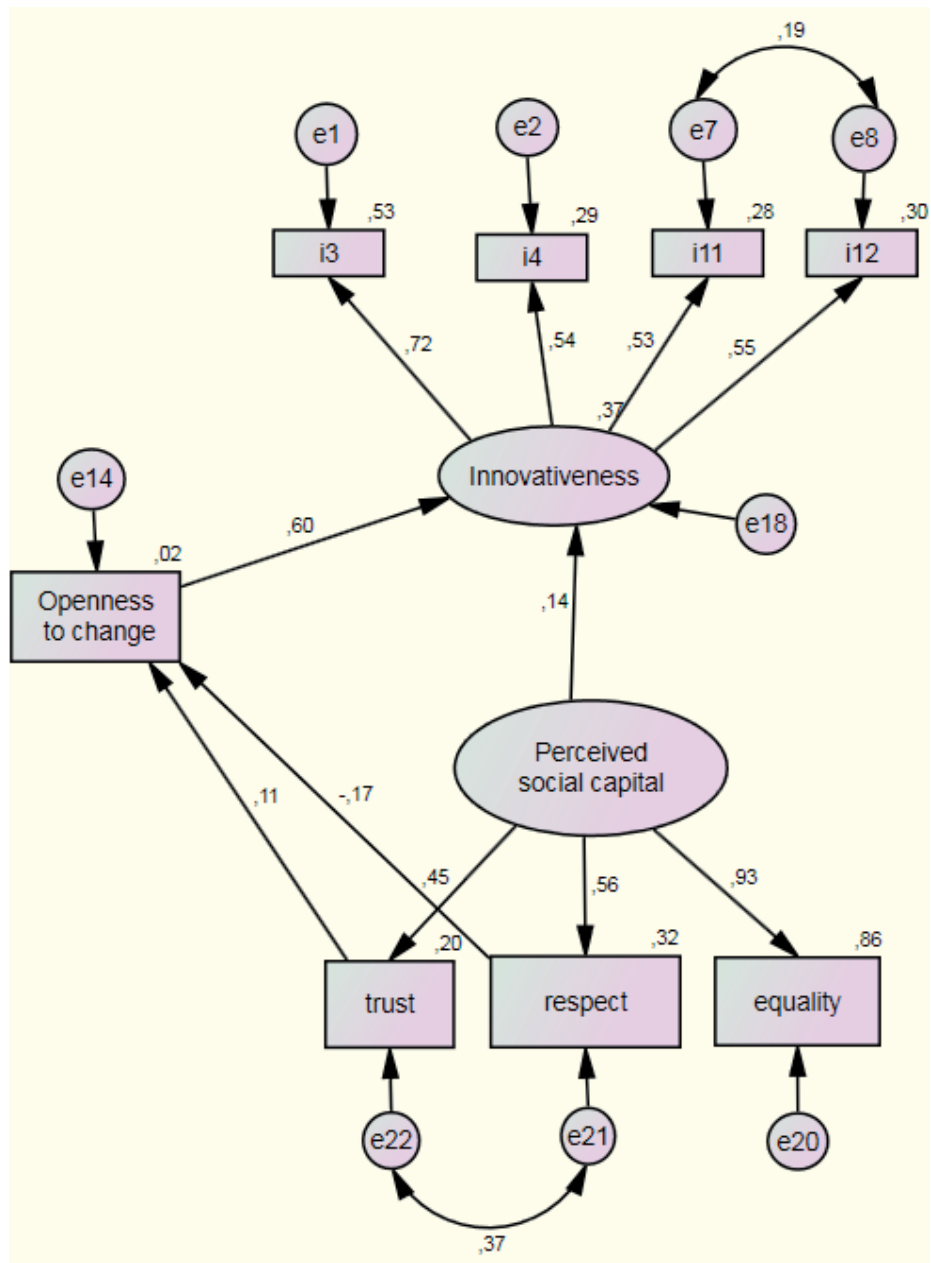
The data presented in Table 4 demonstrate that the general level of trust had a strong negative correlation

with the values of Openness to Change and Self-Enhancement and a strong positive correlation with the values of Conservation and Self-Transcendence. The variable "Perceived social capital" had a strong positive correlation with the value of Self-Transcendence and a strong negative correlation with the value of Self-Enhancement ($p < 0.001$). Tolerance had a weak negative correlation with the value of Openness to Change and a strong negative correlation with the value of Self-Enhancement. This parameter also had a strong positive correlation with the value of Self-Transcendence.

To verify the theoretical model of the relationship of values, social capital and attitudes towards innovation, we employed the method of structural modeling using SPSS Amos 7.0. Correlation analysis allowed us to identify the main variables that we included in the model. In the first phase, we conducted a confirmatory factor analysis to test the scales that measure attitudes towards innovation and social capital. The results showed that not all the items on the scales were effective, therefore the items that showed strong relationships were left out. Modification indices suggested adding correlations between the errors in the scales on the attitude to innovation (between items i11 and i12) and perceived social capital (between the items of "trust" and "respect for other people"). The earlier analysis of literature gave us the basis to test the model of not only full but also partial mediation, since relationships of the components of social capital were found both directly with an attitude towards innovation, and indirectly through the value of Openness to Change [Landry et al., 2002; Tura T., Harmaakorp V., 2005; Akcomak and ter Weel, 2007; Hauser, Ch. et al., 2007; McCallum S., O'Connell D.2009].

The resulting empirical model (see Figure 2) of partial mediation, built with the help of SEM, includes the following indicators: Attitude to innovation (a 4-item scale: "He/she is ready to take risks for the sake of progress", "He/she likes to do things their own original way", "He/she is ready to invest in innovation", "He feels quite comfortable in an unstable environment"); the values of Openness to Change; perceived social capital measured by 3 items ("How typical these behaviors are of the people around you: trusting each other; behaving respectfully towards each other; treating people around as equals").

Figure 2 - The empirical model of the relationship of attitude to innovation, openness to change and perceived social capital (N=1248).



Note: Chi-square = 18,480, p=0,000, CFI = 0,998, RMSEA = 0,014

The results obtained using the structural equation modelling allowed us to assert that the perceived social capital and the value of Openness to Change positively influence the attitude towards innovation. Relationships between the parameters of perceived social capital and the value of Openness to Change were also found. Thus, the item "Trusting each other" positively affects the value of Openness to Change, and "Respect for each other" as a component of perceived social capital does not contribute to the Openness to Change.

5.DISCUSSION OF THE RESULTS

The correlation analysis revealed that the value of Openness to Change correlated with all the dimensions of innovation; creativity, risk for the sake of success, focus on the future and the general index of innovativeness of an individual. Creativity involves the creation of new knowledge different from previous experience, which certainly carries in itself a desire and openness towards the new, i.e., change. The relationship of this indicator with the parameter Risk for the sake of success may be due to the fact that changes bring instability and potential risks. The focus of a person on the future tells us about his/her anticipation of new upcoming events, of the unknown, implying openness and a focus on new experiences and changes. The general index of innovativeness, summing up all these characteristics of innovations, implicitly contained the individual readiness for change and openness to them. The value of Conservation, in fact contradicting with Openness to Change, negatively correlated with all the components of the Attitude towards innovation. It is logical that creativity, risk for the sake of success and focus on future as important components of the innovation process, contradict values of Conservation, including values of security and tradition.

Values of Self-Transcendence, assuming universalism and benevolence towards others, negatively correlated with creativity and risk for the sake of success. The given relationships seem logical, since innovativeness as a construct gives rise to competition and the desire to stand out, which contradicts with the values of Self-Transcendence contributing to group harmony. The obtained positive relationships of values of Self-Enhancement, which include the value of Achievement, Power and Hedonism, with indicators of Attitude to innovation may be due to the following: the respondents, focusing mainly on achievements or, in other words, success, are ready to take risks for this. Individuals seeking to implement the values of Self-Enhancement focused on the future, since the realization of their basic needs was in that timeframe. The relationship between the values of Self-Enhancement serving the interests of an individual and the general Index of Innovativeness seems quite logical, since the values of Achievement and focus on success constitute a part of the characteristics of an innovator. Thus, our first hypothesis about the positive relationship between values of Openness to Change and attitudes towards innovation was confirmed.

As noted by researchers, innovation is now viewed not as the sole combination of material forms of capital (physical, financial), but also as a combination of intangible forms of capital, especially social capital [Landry, Réjean; Amara, Nabil; Lamari, Moktar, 2002]. Therefore, it is interesting to examine the way the dimensions of social capital in our study associate with the attitude to innovation. We see that all the dimensions of social capital relate to attitudes toward innovation. The general level of trust (trust to strangers) positively correlated with a Focus on the future and the Index of Innovativeness. We assume that both parameters reflect the trust of the respondents towards the world. This is the reason for the relationship between these parameters. In addition, people with positive attitudes to innovation have a high level of trust to the unknown, since innovations involve changes and introduction of the new.

The positive relationship between the indicator "perceived social capital" and attitudes to innovation reflects the fact that trust, respect and equal relations form the most optimal social milieu for the development of innovation. Perceived social capital is an attitude to society as a whole. An individual's attitude to society is mediated between relations in this society, and the perception of those relations. Foreign empirical studies show that trust in other people is mediated by the perception of trust by others or, in terms of authors, ascribed trust (Hauberer, 2011). Russian authors note that the perception of the level of social capital is important for self-orientation on success and economic activity (Tatarko, 2012), which was also revealed in this study in the positive correlation with the innovativeness of individual.

The indicator of "Tolerance" also positively correlated with the components of attitude to innovation. The relationship between the indicator of "Tolerance" and the Index of innovativeness, from our point of view, indicates that the respondents with positive attitudes to the introduction of innovations demonstrate tolerance towards any novelty, including people and groups that are different. The obtained data are consistent with studies of social capital and its impact on innovation [Landry, Réjean; Amara, Nabil; Lamari, Moktar, 2002, Tura T. and Harmaakorpi, 2005, Lebedeva, 2011]. Thus, our second hypothesis on the positive impact of the characteristics of social capital (trust, tolerance and perceived social capital) on the attitude towards innovation was confirmed.

Regarding the relationship between values and social capital, the correlation analysis revealed a positive relationship of values of Conservation and Self-Transcendence, and a negative relationship of values of Openness to Change and Self-Enhancement with the dimensions of social capital. This can be explained by the fact that the values of Conservation and Self-Transcendence represent the interests of a group and contribute to group harmony, while the values of Openness to Change and Self-Enhancement serve the interests of an individual and negatively correlate with indicators of social capital. Since trust, tolerance, social ties and other dimensions of social capital also contribute to social harmony and cohesion, their close relationship with the values of Conservation and Self-Transcendence is not surprising, as it had been assumed in our third hypothesis.

The obtained empirical model of the relationship of values and perceived social capital with the attitude towards innovation partly confirmed the results of the correlation analysis. The strong relationship of the value of Openness to Change with the attitude towards innovation is indicative of the need for creating conditions to form the given value as a powerful value-motivational basis of individual creativity and innovativeness. In this model, perceived social capital performs to some degree the function of a mediator. Trust relationships in the group, both directly and indirectly through the values of Openness to Change, promote the adoption and support for innovation. Interestingly, the correlation analysis showed

no relation between perceived social capital and Openness to Change. Moreover, it showed a weak negative relationship between trust and Openness to Change.

In the empirical model, we find a positive relationship of the component "trust" of perceived social capital and the negative relationship of the other component "Respect for others" with the value of Openness to Change. This may indicate that, in the minds of our respondents, confidence is a necessary element of the innovative environment and openness to change, whereas respect, which is an important component of perceived social capital, contradicts with openness to change, since it assumes a status quo. Openness to Change and innovation often lead to overthrowing of authorities, confrontations and conflicts, which is not always compatible with respect for others. If we follow the logic of Fromhold-Eisebith, who argues that the general purpose of social capital is "to sustain elements of stability and reliability in an environment of change" [Fromhold-Eisebith M., 2002], while an innovative or creative milieu is more focused on change, our model proves this mechanism once again.

Thus, our hypotheses were confirmed in the empirical study, proving once again that the socio-cultural context and the dominant values in society play a significant role in attitudes to innovation, and it is essential to take them into account while designing and implementing innovation policies at any level.

6. CONCLUSION:

1. Values of Openness to Change positively correlate with attitudes to innovation
2. Trust, Tolerance and Perceived social capital positively associate with attitudes towards innovation
3. Values of Conservation and Self-Transcendence, expressing the interests of a group, positively correlate with the dimensions of social capital
4. Social Capital, both directly and through values of Openness to Change, positively influences attitudes towards innovation
5. The identified relationships of values and social capital with attitudes towards innovations require the consideration of contextual characteristics in planning and implementing innovations.

This study confirms the ideas of our predecessors [Amabile, 1990; Rudowicz & Yue, 2000], stating that in order to obtain a better understanding of the psychological nature of innovation, it must be studied, just as creativity, in the context of the interplay of individual and socio-cultural variables.

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