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## Entrepreneurial ability assessment of the population

The article describes able-bodied citizens' qualitative adjectives which from the point of entrepreneurs and the whole population view are necessary to conduct business successful. Potential entrepreneurial ability index is offered on which basis entrepreneurial ability assessment of the Vologda region population is given. Groups with potentially high entrepreneurial ability are marked out in the article.

Entrepreneurial ability, entrepreneurship, labour potential, qualitative adjectives of the population.



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Russia transition to innovative social oriented economy peculiarity consists in the necessity of simultaneous problems solving both raising and outgoing development. This assumes a new economy of knowledge and high tech formation. Innovative type of economic development requires maximal facility creation to take entrepreneurial initiative. The efficient professional entrepreneur, a knowledge bearer, is one of the main consumers of innovations. He forms a modern innovative business which in the last analysis defines competitive ability of social and economics systems. That is why assistance to a small and medium-sized business development is raising to the level of one of the main priority of public social and economic policy [1, 2].

The minister of economic development of the Russian Federation E.S. Nabiullina has noticed that in Russia "the number of small companies considerably lags behind economically developed countries performance. The matter is just not only mathematical comparison of companies' number. In the economies of all countries — economic leaders — small and medium-sized business produces not less than a half of their GDP" [12].

The problem of insufficient high entrepreneurial initiative is enhanced by the large territorial differences in small and medium-sized business development. With the mean value of 793 small businesses per 100 thousand people (data as of January 1<sup>st</sup>, 2008) such regions as St.-Petersburg (2 756 small businesses per 100 thousand people), Moscow city (2 060), Kaliningrad region (1 831) stand out from one hand. From the other hand relative number of businesses in outsider regions tens times less: in Ust-Ordynsk Buryat autonomous area there are 75 small businesses, in Republic of Dagestan — 141 per 100 thousand population[3].

Vologda region also belongs to the regions with insufficient low entrepreneurial initiative of the population. As of January 1st, 2008 data it is in the subject of the federation with the most low number of small businesses at per 100 thousand population top twenty. On this indicator the region takes the 70th place in Russia and last but one place in North-West Federal District outgoing only the Murmansk region [3]. There are 4 787 small-scale enterprises and 39 822 sole proprietors registered in the region which are

<sup>&</sup>lt;sup>1</sup> Sole proprietor is a citizen (individual person), who conducts business without being a legal person, after the state registration according to Article 23 of the RF civil code, implemented from 1.01.1995 [9, p. 105].

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Table 1. The highlights of small business development in Vologda region in 1998 – 2007, at the end of year

	Year									
Indicators	Before reregistration*						2005	2006	2007	
	1998	1999	2000	2001	2002	2003	2004	2003	2000	2007
Small-scale enterprises, thousand units.	4,1	4,9	6,0	6,3	6,0	6,3	6,1	4,8	4,9	4,8
Numbers employed in small-scale enterprises, thousand people	60,2	61,4	64,6	66,4	58,6	62,6	63,3	62,0	63,5	65,0
Sole proprietors number, thousand people	59,9	61,9	67,7	67,7	73,7	75,1	81,5	32,8	35,9	39,8

<sup>\*</sup> Before the Federal law "About the state reregistration of legal persons and sole proprietors" entering into force.

Sources: Statistic year-book of Vologda region. 2006. – Vologda, 2007; Vologda region small business in 2006: statistic bulletin. – Vologda, 2007. – P. 10, 30; Vologda region small business in 2007: statistic bulletin. – Vologda, 2008. – P. 7, 86.

Table 2. Distribution of Vologda region's population and sole proprietors answers to the question: "What do you think is necessary to start successful business?" (2008, in % from respondents' number)

Possible answers	Whole population	Sole proprietors
Outset	63,6	65,0
Special entrepreneurial character	30,5	50,7
Presence of precise own business development plan in prospect	18,9	22,7
Presence of specialists and qualified workers team	14,5	26,7
Presence of special knowledge in enterprise management, marketing, financial planning, personnel management	14,4	22,3
Personal contacts in bodies of power or departmental structures	13,8	22,0
Personal contacts and active sole proprietors' support	11,5	19,3
Possibility to rent or lease necessary equipment	10,2	13,7
Letter contract with future suppliers and customers about joint actions	8,1	11,0
Access to workrooms and offices	6,2	15,7
To find difficulty in replying	21,9	_

factored into statistic list of the business entities. Average number of small-scale enterprises' workers is 65 021 (tabl. 1).

According to the territorial form of federal state statistic service in the Vologda region at the beginning of 2008 sole proprietors' unit weight in economically active population number was 6%. According to another estimation based on public opinion monitoring results<sup>2</sup> which is carried by VSCC CEMI RAS, in 2008 sole proprietors' part having their own business and business corporations' heads in general number of the population 16 years old and over was 4%. Along with this fact 22% of the population see

fit to do business (in 2001 this number was the same).

However a number of conditions is needed to start successful business and in the first place is an outset as 64% region's residents and 65% sole proprietors think. Pools show that just outset lack prevents to start business. Nevertheless the outset presence is not at all enough to start successful business. The second place in importance for respondents which has left the other answers long away is "special entrepreneurial character" and at that this personality trait sole proprietors estimate higher (51%) than the population in whole (31%; *tabl.* 2).

<sup>&</sup>lt;sup>2</sup> Public opinion monitoring is carried by VSCC CEMI RAS 6 times a year from 1998. Object of research is Vologda region's population 16 years old and over. Polls are carried in the cities of Vologda and Cherepovetz and in 8 region's areas (Babaevsky, Velikoustyugsky, Vozhegodsky, Grayzovetzky, Kirillovsky, Nikolsky, Tarnogsky and Sheksninsky). Amount of sampling is 1500.

Actually business success is determined to a large with sole proprietor's personality trait. American economists K.P. Makkonnell and S.L. Brue think entrepreneurial ability (or spirit of enterprise) is a special kind of human talent which is the most important economic resource of the country equally with the land, capital and labour.

Sole proprietor functions complicate. He takes the initiative of land, capital and labour resources combination into integrated production process of goods or services. He solves a difficult problem of making important decisions in the process of doing business. He seeks to put in practice commercial new products, new production technologies or even new forms of business organization. Sole proprietor consciously risks not only his time, labour and goodwill but also his finance [7, p. 37-38]. All this requires special personality traits which are called entrepreneurial ability.

Having summarized the above one can give the following definition.

Entrepreneurial ability is a set of person's qualities, skills, abilities which allow him to find and use the best resources combination for production and selling of goods, to make rational, consistent decisions, to create and use knowhow, to take acceptable reasonable hazards [13].

There is no monosemantic interpretation of population's entrepreneurial ability structure in economic literature. This article interprets entrepreneurial ability as able-bodied citizens' qualitative characteristics which are needed for successful business.

We used the conception of population's qualitative characteristics (PQC) to classify personality traits. The conception was intro-

duced in the works of the population social and economics problems institute of RAS scientists (N.M. Rimashevskaya, E.B. Breeva, D.I. Zyuzin, M.R. Pheonova and others) [5].

Methodology of PQC assessment is based on the following three main fundamental components:

1) physical, mental and social health;

2) people's professional and educational skills which form their life ware;

3) cultural and moral values, citizens' spirituality, their sociocultural activity.

Each of these components by using specific indicators can be detailed and integrated, depending on the purposes of population quality measuring. Thus, a particular set of indicators is used in determining of the workforce abilities [10, p. 35].

In particular, Vologda Scientific and Coordinating Centre CEMI RAS in the framework of region's labor potential quality monitoring<sup>3</sup> measures the population's physical and mental health, cognitive capacity, creativity, sociability, cultural and moral level, achievement need [6, 11].

Monitoring data allow assessing Vologda region's labor potential qualitative characteristics, including in the light of entrepreneurial ability.

According to the methodology of the population social and economics problems institute RAS (ISEPP RAS) [4] Laykert's scale<sup>4</sup> is used to measure the quality of the workforce. The questionnaire consists of statement blocks which are primarily assessed on the five point rating scales (in terms of the respondent's goodness of fit with the offered statements). There is a question block for each quality. As a result of the monitoring labour potential components

<sup>&</sup>lt;sup>3</sup> Object of research is Vologda region's able-bodied population. Polls are carried annually in August — September since 1996 in the cities of Vologda and Cherepovetz and in 8 region's areas (Babaevsky, Velikoustyugsky, Vozhegodsky, Grayzovetzky, Kirillovsky, Nikolsky, Tarnogsky and Sheksninsky). Amount of sampling is 1500.

<sup>&</sup>lt;sup>4</sup> Laykert's scales are a variety of questionnaires of attitudes. They were named after the author, Robert Laykert, who suggested them in 1932. Laykert's scales consist of a set of statements containing five-or seven point evaluation rating scale, which determine subject's goodness of fit to these statements.

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get numerical evaluation in the indices from zero to one, which are calculated as the ratio of the actual points' number on the scale to the maximum possible.

According to a survey in 2008, 3% of the respondents refer to entrepreneurs which have their own business. Among them: 68% are men, 32% are women; 20% under the age of 30 years old, 46% from 30 to 40 years old, 34% over 40 years; 29% of respondents have higher or incomplete higher education, 47% — secondary, 24% — primary vocational and general secondary education. Thus a typical entrepreneur is a man at the age of 30 to 40 which has specialized secondary education.

In Vologda region's entrepreneurs opinion, activity they do, requires in the first place good communication, ability to get along with people, be sociable (tabl. 3). Secondly, he must have good physical and mental health and be stress stable. Then descending importance degree for the entrepreneurs there are the cognitive capacity (versatile knowledge, great erudition, high qualification), moral qualities (honesty, truthfulness, sense of duty, honesty,

bound, etc.) achievement need (the desire to climb a career ladder, initiative, etc.), creativity (resourcefulness, ability to create knowhow, to solve previously unknown problems, etc.). To be a highly cultured (educated, polite, etc.) man is the least important quality according to respondents' opinion to do business.

According to monitoring data, the highest indicators of population's labor potential quality (in general) are morale level, communication and mental health. They correspond to the highest index value during the whole period of measurements from 1997 to 2008. Creative potential index takes on the lowest value. Meanwhile physical and mental health, cultural level, achievement need tend to growth. Trend to decrease is specific for the cognitive and creative capacities, moral standards of the population (tabl. 4).

Significantly, six of the eight indices of entrepreneurs' labor potential quality are higher than the average in the region. They are index of communication, physical and mental health, moral and cultural level, achievement needs. The exception is the cognitive and creative potential (figure).

Table 3. Answers' distribution to the question: «What qualities does business you do at present require?» (2008, in % from entrepreneurs' number)

Very important (4 points)	Enough important (3 points)	More or less important (2 points)	Not important (1 point)	Average of distribution	Dispersion	Rating*
		Communication	, ability to get alon	g with people		
68,3	22,0	7,3	2,4	3,56	0,743	1
		Good ph	ysical health and f	eeling		
53,7	36,6	9,8	0,0	3,44	0,673	2
		Hi	igh stress stability			
61,0	22,0	17,1	0,0	3,44	0,776	3
	Pre	sence of versatile kno	wledge, great erud	ition, high qualifica	tion	
53,7	34,1	7,3	4,9	3,37	0,829	4
	Presence of high	n moral qualities (hone	esty, truthfulness, s	sense of duty, hone	esty, bound, etc.)	
56,1	31,7	4,9	7,3	3,37	0,888	5
S	table desire for the c	areer ladder climbing,	professional deve	lopment, initiative a	and spirit of enterpris	se
46,3	39,0	12,2	2,4	3,29	0,782	6
Prese	ence of creativity (res	ourcefulness, ability to	o create knowhow,	to solve previously	y unknown problems	, etc.)
41,5	39,0	14,6	4,9	3,17	0,863	7
	High cultu	re (have a decent upb	ringing, be polite, i	reserved, to look al	ways well)	
43,9	36,6	12,2	7,3	3,17	0,919	8

<sup>\*</sup> Average of distribution being equal qualities with smaller dispersion (characterizes unanimity) got a lower rating. Source: Vologda region's labor potential quality monitoring, VSCC CEMI RAS.

Table 1. Eabert Potertial qualitative stratage in the volegae region							
Quality*	Index value in 1997	Index value in 2008	Rank	Trend line			
1. Communication	0,733	0,747	3	- parallel to time axis			
2. Physical health	0,682	0,729	4	/ increasing			
3.Mental health	0,699	0,756	2	/ increasing			
4. Cognitive potential	0,630	0,621	7	\ decreasing			
5. Moral level	0,775	0,769	1	\ decreasing			
6. Achievement need	0,612	0,660	6	/ increasing			
7. Creative potential	0,593	0,571	8	\ decreasing			
8. Cultural level	0,609	0,684	5	/ increasing			

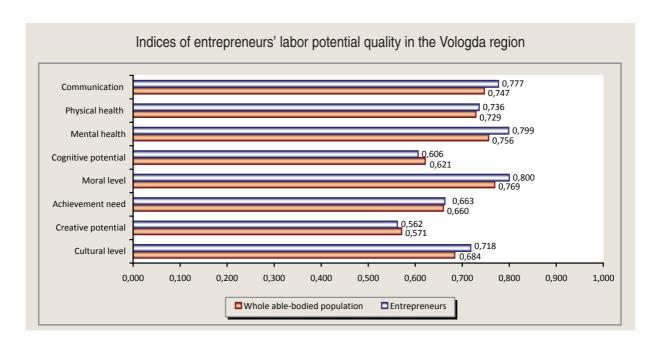
Table 4. Labour potential qualitative characteristics in the Vologda region

The fact that the index of entrepreneurs' cognitive capacity is lower the average in the region (0,606 versus 0,621 in 2008) shows a weak intellectual component of modern business. However, from our point of view, under the conditions of transition to innovative development cognitive capacity with the lapse of time will be the main link in the entrepreneurial ability structure. The index of the entrepreneurs' creative potential is lower than the index of cognitive capacity and the region's average values (0,562 versus 0,571 in 2008). At that creativity, along with the cognitive capacity plays a crucial role in the innovative development.

On the basis of analysis the groups of popu-

lation with potentially high business abilities were marked out. For this purpose integral index of potential entrepreneurial skills was made. We defined it as indices' weighted average of the able-bodied population qualitative characteristics, with weights which are proportional to the importance degree of each quality. The importance degree was defined by the survey of Vologda region's entrepreneurs.

The following socio-demographic groups: Cherepovets's residents, women, persons under 35 specialists with higher or incomplete higher professional education have higher values of potential entrepreneurial skills indices (tabl. 5).



<sup>\*</sup>Ranked according to importance level to do business (see tabl. 3). Source: Vologda region's labor potential quality monitoring, VSCC CEMI RAS.

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Criteria Group Index value Area 0,692 Region Vologda 0,702 Cherepovets 0,716 Districts 0,676 Sex 0,690 Men Women 0,694 Age Under 35 0,700 Over 35 0.684 Education 0,665 Under secondary and secondary Professional secondary 0,694 Higher and incomplete higher 0,718 Source: Vologda region's labor potential quality monitoring, VSCC CEMI RAS.

Table 5. Potential entrepreneurial skills index of different socio-demographic groups of the Vologda region's population in 2008

The research accepted that a person has high potential entrepreneurial abilities, if the index exceeds 0,8 points. As a result a group of population was made out which is potentially prepared to entrepreneurship according to qualitative characteristics (the backbone of this group is young women having higher education). It is 7% of the region's inhabitants, but only 3% of them realized themselves as entrepreneurs. To our mind this group engaging in business could not only significantly increase the entrepreneurial activity level, but also give the opportunity of small business qualitative growth.

Of course, the entrepreneurial ability of the population is not limited by considered qualities, but, undoubtedly, largely depends on them. Such personality traits as the initiative, the ability to make correct decisions, and consciously take risks are not directly included in the analysis, despite their relevance for entrepreneurial activity, since they are difficult to measure. Nevertheless, the qualitative characteristics of the population study in the light of entrepreneurial ability leads to the conclusion that there are real opportunities for better labor capacity using, including business. It should be noted that the most promising in point of the entrepreneurial ability are young women having higher education and living in large cities of the region.

The research show that the critical points are cognitive and creative components, especially it concerns entrepreneurs' potential. It is difficult to compete with the transition to the innovative economy, the innovative business. Consequently, adequate measures are required for the entrepreneurs' intellectual potential development, including their active involvement in training and development of innovative business promotion system.

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