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INFORMATION ECONOMY OF BELARUS AND ALLOCATION OF SOCIAL CAPITAL

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Abstract. The theory of social capital in information economy is analyzed. The micro-social processes that govern how people create and appropriate value from social capital is viewed. It is shown that strong social capital in Belarus is a basis of it economic and information development. Determinants of social capital in economy of Belarus include high levels of education, communications services, science and new technology. Paper investigates how to enable process of development of social capital from communication, education and science.
Keywords: social capital; human development; social structure; information; telecommunication; education system; science and new technology.

Social capital has been defined as "the sum of the resources, actual or virtual, that accrue to an individual or group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition". However, our theoretical and empirical understanding of the resources information networks provide, the mechanisms linking information networks to resources, and the processes governing the creation and appropriation of value from resources distributed through networks remain vague. A prominent resource linking networks to value is information. Differential access to information, guided by differences in social structure, can not only create value, but may also help build other resources that contribute to social capital development. As information plays a central role in structural theories of social capital and brokerage, we have to focus on clarifying how information networks help to create social capital and value through their influence on access to information. One of the most prominent mechanisms theorized to drive the relationship between social structure and value (typically defined as realized social or economic advantage) is the existence of "information benefits" to network structure. According to this argument, actors in diverse structural positions enjoy social and economic advantages based on their access to heterogeneous, novel information. Burt shows that individuals with structurally diverse networks are more successful in terms of wages, promotion, job placement, and creativ-

ity. He argues that these performance differentials can be explained in part by actors' access to diverse pools of knowledge, and their ability to efficiently gather non-redundant information – what he terms the "vision advantage". Aral, Brynjolfsson and Van Alstyne demonstrate that structural diversity is associated with higher levels of performance for task-based information workers.

Determinants of strong social capital include high levels of interpersonal trust and access to channels of communication and the media. Interpersonal trust increases people's readiness to interact and cooperate with one another. As stressed by Fukuyama, trust is "the expectation that arises within a community of regular, honest, and cooperative behaviour, based on commonly shared norms, on the part of other members of that community". Access to channels of communication helps to broaden personal networks, while the media can promote social cohesion by creating a sense of belonging within citizens to the events and issues most relevant to the society at large.

In 2016, the communications services in Belarus accounted for 2.5 % of GDP, having increased by 0,4 % as against 2015. The market of mobile telecommunications services reported a robust growth. The number of subscribers to mobile operators increased by 1.9 million people over the previous year and the number of new subscribers to landline services grew by 83.7 thousand. The communications services to legal entities and natural persons jumped by 22.7 %, paid telecommunication services via all market outlets soared by 23.5 %. In 2016, construction and reconstruction of telecommunication and broadcasting networks continued. As of late 2016, 67 % of switching facilities of local telephone systems were digitalized. There are about six million mobile subscribers in Belarus. The mobile networks cover over 75 % of the country's territory with over 92 % of Belarusian population. The Internet bandwidth grew four times over a year to 1.86 Gbps. The installed capacity of the broadband connection grew ten times to about 32,000 ports over a year. There are four mobile operators in Belarus which provide services of GSM and IMT-MC-450 standards. A 3G mobile network is planned to be set up. Frequency resources will be allocated to established and emerging mobile operators on a tender basis. As of January 1, 2007, there were 226 landline phones per 1,000 rural dwellers; 263 underpopulated villages had landlines installed.

The priority areas of the information and communication development in 2016–2020 are:

- developing landline and mobile networks allowing for protection from an unauthorized access and providing networks' reliability in emergency and during martial law periods;
- upgrading communications networks via replacement of the analog switching gear for digital equipment maximally using Belarus-made products;
- boosting data transfer services in landline and mobile networks and creation of conditions for a transition to packet switching telecommunication

networks providing broadband Internet access and proper servicing quality;

Access to channels of communication has expanded opportunities to receive an education and find employment. A growing number of educational establishments are benefiting from access to electronic libraries and research data bases. Many are offering distance education courses. The development of corporate networks has given more people the option of telecommuting, or working for their employers over the Internet. High levels of interpersonal trust and growing opportunities for citizens to interact with one another have strengthened and broadened cooperative ties within the Belarusian society. Such interaction and cooperation have helped offset the negative effects of income inequality, and the unequal opportunities that come with it. In 2016 ITU (International Telecommunication Union) published new statistical data about Belarus (see Table 1).

Tab. 1

Number of public associations annually

Population	9'688'796
GDP ($)	64'773'354
Fixed telephone lines per 100 inhab.	37.90
Mobile cellular subscribers per 100 inhab. (2015)	61.44
Computers per 100 inhab. (2016)	0.81
Internet users per 100 inhab.	61.93
Broadband Internet subscribers per 100 inhab. (2015)	0.12
International Internet bandwidth (Mbps)	2'560
TV sets per 100 inhab. (2014)	38.61
% population covered by mobile signal (2014)	92.50

Education. Access to high quality education is a fundamental component of social capital development. To make their own appropriate choices about lifestyle, career opportunities and political preferences, people must be literate and possess solid knowledge in these various areas. The high international rankings of Belarus in human development are due in large part to the high educational attainment of its citizens. Accomplishments of the education sector include high adult literacy rates and high educational enrolment ratios, as well as extensive use of innovative forms of instruction. However, despite these successes, education is struggling with a range of problems. One of the major problems is under-funding. In 2008, public expenditure on education reached 7% of the GDP, which is still below the level of EU, USA and Russia (table 2).

One consequence of insufficient funding is a shortage of space in secondary and tertiary level institutions. Teaching in schools and many universities is being organized in two, and sometimes, three shifts. School curricula still remain more focused on text-

book knowledge than on creativity that is essential for full-rounded personal development. *Education and science are the key contributing elements of progressive economic and information development.*

Tab. 2

Share of the expenditure on education

Country	1980	1990	2000	2015
USA	6,6	6,9	7,2	7,7
Japan	5,4	5,6	5,6	5,7
Germany	4,8	5,1	5,4	5,7
France	8,3	8,7	8,7	8,8
Great Britain	6,9	6,9	7,0	7,2
Russia	8,6	9,9	10,6	10

Education is a top priority for Belarusian social and economic policy. Our annual public spending on education is about 7 % of GDP in 2015 – higher than in many well-developed countries. Belarus has ensured a free secondary education, preserved a free high education available to all people on the basis of competition. For years our national education system produces one of the top literacy levels in the world – 99,7 % among adults.

Being one of the highly developed industries of the Belarusian economy, science and science-related services have great potential in transformation of social capital into intellectual potential. It is believed that Belarus could accelerate its progress towards sustainable human development, preserve the unique features of its socially oriented economic system and respond to the challenges of informatization.

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