ACTUAL SITUATION AND FUTURE PERSPECTIVES ABOUT SMES'S HUMAN CAPITAL IN RUSSIA AND OTHER COUNTRIES

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ABSTRACT

The article analyses human capital concept in Europe and Russia, then it compares level of development of human capital in SMEs in different countries as Russia, Italy and BRICS. The first part of the article explains the importance that human capital covers in overcoming economic crisis; the second part gives and overview about human capital situation in Russia and other countries. The Human Capital Report made by the Economic World Fund is considered very important for the mathematical analysis.

JEL CLASSIFICATION & KEYWORDS

■ 015 ■ HUMAN CAPITAL ■ SMES ■ RUSSIA ■ BRICS ■ ITALY ■ ECONOMIC DEVELOPMENT

INTRODUCTION

Human capital can be considered relatively a new problem. Even if economists started to analyze it since the XVIII century, only in the XX concept of human capital started to assume a relevant position for economists. Today it is strictly connected with the development of SME's; indeed human capital represent a necessary resource and instrument to permit the creation of a successful small-medium business. Is important to underline that today, the concept of human capital connected with the world of SME's is very important also for national governments; not only in the European Union, but also in Russia, governments are giving a particular importance to this aspects. For this reason national governments, and especially ministers of economy or ministers of economic development, have created programs of support dedicated only to innovative SME's. Today, a concrete development of human capital in an economic system and especially in SME's sector, has assuming a social importance before than economic; that's why the importance of studying and developing human capital.

Literature review

Economi

Business and

of

Concept of human capital suffered a transformation during history. It was analyzed by A. Smith and Marshall, but into last century it assumed a relevant position, at first during '60 years with T. W. Schultz, G. Becker and J. Mincer, because they started to study the correlation between human capital and increase of wealthy. In 1776 Adam Smith wrote: "A man educated at the expenses of much labor and time to any of those employments which require extraordinary dexterity and skill, may be compared to an expensive machine. The work which he learns to perform, it must be expected, over and above the usual wages of common labor, will replace to him the whole expenses of his education, with at least the ordinary profits of an equally valuable capital" (Smith, 1776).

During the next century, W. Far (1853, p. 1 - 46) proposed a study of human capital, characterized by a rigorous

scientific analysis; he theorized the method of capitalization of income and after 80 years. Dublin and Lotka (1930) tried to resume Farr's analysis; their conclusion was that there are two big macro methods about human capital. The first is the prospective method that includes the analysis of Farr: it considers like the calculation of human capital into a future prospective. In the first step are considered and calculated all expenditures for the education of a worker, then all benefits that derive by the increasing of level of education and professional instruction; in the end, comparing expenditure and income is possible to declare if the worker is useful or useless for the company. In this method, the biggest problem is the uncertainty in calculating of the future income streams; that's why in the previous century two economists, Jorgenson and Fraumeni (1989) tried and in part resolved the problem: they add new variables to actualize all expenditure and income, in order to have a better analysis of all voices, but is clear that there are some extra economic voices that is very difficult to "translate" in numeric values, that's why they resolved only in part the

The second method is the retrospective method, theorized by Engel (1883): it considers human capital as the expenditure of the education of a worker since he was born, so as his "cost of production"; it doesn't consider the social cost of formation of a person that society spent for he and then it doesn't take care of the different social condition of a family in which a person was born, Lovaglio and Vittadini (2004, p. 14).

Concept of human capital generated a lot of studies and models that are sometimes in contradiction each other, but in the last century, after Second World War, Gary Becker created a specific definition of human capital.

G. Becker won in 1982 the Nobel Prize because of his research about human capital, and actually he is considered the father of modern conception of human capital.

His theory represent a revolution because human capital stopped to be just an algorithm or a theoretical study; human capital with Becker was represent by a mathematical number, he was of the opinion that instruction can be considered as number of years of instruction.

Level of salary reflects level of utility of a worker; indeed these factors are proportional so if more is productivity, higher will be salary; instruction helps to increase level of productivity, and as consequence instruction contributes to increase level of salaries.

In this mode instruction enter indirectly into function of utility because of work, but if people like to study, variable e can influence directly level of utility, Rose and Ordine, (2013, p. 2).

But Becker created a theoretical model, that work in condition of perfect concurrence of labour market; indeed, the analysis of real national economy, shows to reader that in some case Becker's model goes in contrast with empirical

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evidence of data; for example the analysis of South Korea shows that public investments on education give base for a competitive economic system, that then improved and develop economy of this country, in fact today the application of new technologies, that is the base of power of Korean economy, was possible only because of education; the opposite happened in Egypt, where even if during 70' and 80' government invested a lot in education, but after 20 years Egyptian economy is not so improved (especially considering level of investments), and the only strong sector is tourism (Lodde, 2000, p. 13).

Discussion

Human capital can be considered a resource; regarding small and medium enterprises it could be fundamental for development, especially in modern economy which level of concurrency is higher and SMEs have to defend by big corporation. In some cases, human capital is an assumption not only for economy but generally for society. In Spain, "La gran enciclopedia de Economia", tried to explain why economists and economy started to show more and more interest to human capital. With economical and technological progress, some factories needed some professional competence that were fundamental for production; besides in the last century, expenditures for instruction increased a lot and also the old worry of finding is an explanation for the unequal distribution of personal income. Then "La gran enciclopedia de Economia", showed results of some empirical studies:

- 1. investments in human capital have an important impact of economical growth,
- 2. people with a higher level of instruction usually earn more money that other.
- 3. unemployment and instruction are usually inversely proportional (La granenciclopedia de Economia, 2009).

Results

In Italy generally it is viewed as an opportunity to go out from market stagnation. It is not a case that human capital can be a factor that will help national economy to go out from stagnation, indeed Italian economy is composed by almost 99% from small and medium enterprises. Italy shows the incredible and strong relation between human capital and SMEs. On 2015, ISTAT (Italian Institute of Statistics) tried to quantify, for the first time in its history, the medium value of human capital in Italy. 342 thousands euro, it is the medium value of Italian human capital; study underlines that total value of human capital is 13.475 bill. euro, almost eight times more than GDP of Italy. Total value is not equally distribute to all people, indeed men have a relative value that is higher than women (66% for men and 34% for women) (Marro, 2015).

In Russia the problem about the consideration of human capital is an emergency that must be resolved in short time. Khasanova and Rabtsevich considered human capital not only a requisite for competitiveness of national economy into a world contest, but it is also fundamental for the legislative power of a nation; so they decide to go out from the economy sphere to explain how education and investments in human capital are fundamental for all society in general; in this way problem of low birth rate is strictly connected with human capital, indeed it will have an important impact on the work force in the economy, and even on the pension system, Khasanova and Rabtsevich (2011). The development of concept of human capital can be an answer to the Russian problem of diversification of economy, indeed Russian level of SMEs in economic system today is not enough to permit

a full development; in this way human capital can represent a valid instrument for development of SMEs.

Human capital represented an important instrument for government, especially since '70 years, to contrast economical recession and to reduce level of unemployment (The theoretical foundations of the concept of human capital, 2009); these are two very important reasons because human capital must be one of most important point for governments. Human capital can be considered a necessary factor to start process of revitalization of economy, so is clear that the concept of human capital must be fundamental for Government because it is at first, an instrument to overcome crisis: indeed new human resources can create new market sectors, new companies and new jobs; all sector of innovation and development is moved by workers and young people, in this way is clear that if they have all instrument to work, process of innovation and development will move faster, and all economic system will receive benefits from this.

Human Capital means Education, for this reason role of Universities become fundamental for economy; as written also before education is able to increase level of satisfaction of workers and managers at same times; it captures the essence and the assumption of the economic success of a business. Education creates happy workers and high level of incomes, necessary prerequisites for survival of a company. For this reason, principal duty of Universities is to prepare young people to individuate at first, and realize correctly then, their role inside society. Such kind of society in which, economical, social and cultural development depend by the creation and sharing of knowledge and skills (Quintano, 2011).

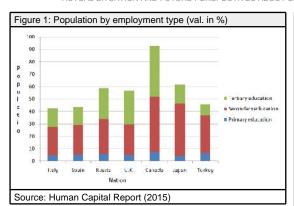
As Galimberti (2011) said:

"If anyone is hungry, it is better to give a fish or teach him to fish? Give him something to eat can solve his immediate problem, but to give him a chance to eat again and the dignity to get food alone, it is better to teach him to fish. Metaphors aside, what is important for a living is what economists call "human capital". Having resources-oil, minerals, gas, fertile land and seas full of fish-is useful. Also willing to have arms. Having advanced machines, from computers to diggers, too. But for all that it takes to put together the "human capital", that is, capable and educated workers, equipped with knowledge and willingness to learn."

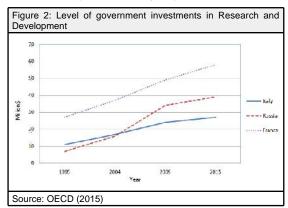
The importance of human capital is also demonstrated by the fact, that World Economic Forum monitored situation about human capital with an annual report. They make a world ranking, create using some indexes, as level of instruction in different ages, they also analyzed level of employment, of educative structures and level of alphabetization.

For the report "Human Capital 2015", Russia is 26th and has also the primate about the possibility to access to primary school; Russian Federation is also the first nation of BRICS and it is upper than a lot of European nation, for example as Spain and Italy. First problem of Russia is connected with birth rate and density growth, indeed it is 82nd (Kotbyuenko, 2015).

As a former global superpower, Russia has a double comparative advantage in it; at first, Russia has a large technological research infrastructure. For years, technological institutions and universities have produced advanced technology for the military. As the conversion of the defense industry to consumer applications and the infusion of western technology through joint



telecommunications ventures permeate society, Russia could yet fulfil its technological potential. Second, there is a highly educated work force in Russia to support its modernization (Michael, 2000, p. 12).



Analyzing better data of Human capital report 2015, reader can understand, that Russia results 13th and 16th for people who are 15-24 and more than 55 years old, Italy is 47th and 39th. Spain is 41st into general ranking and 56th for people who are 15-24 years old, and France, even if is 14th into general ranking, is under Russia in merit of people who are 15-24 and more than 55 years old. In the end United States are 17th and Japan 5th, the best country for people who are more than 55 years old. Even if in past times, when Russia was part of Soviet Union, this country had a higher level of education and human capital, actually Russia is one of most powerful nations, and gap between this nation and other BRICS countries is huge; indeed India is 100th, China 64th, Brazil 78th and South Africa 92nd (Human Capital Report, 2015).

Table 1: Additional Information about BRICS									
Nation	Brazil	China	India	Russia	S. Africa				
State on Cluster Development	4.63	456	450	313	416				
Internet access in schools	362	527	383	514	318				

* Survey response on a 1- to 7- scale (1 = worst score, 7 = best score)

Source: Human Capital Report (2015)

Table 2: Human Capital ranking divided for age of BRICS										
World Ranking	Russia	India	S. Africa	China	Brazil					
Under 15 age group.	44	67	88	55	95					
15-24 age group	13	98	108	58	66					
25-54 age group	29	109	78	61	66					
55-64 age group	17	115	82	83	70					
Over 65 age group	15	114	111	93	72					
Source: Human Capital Report (2015)										

CONCLUSION

Medium age of Russian Population is 38 years, it is a good parameter that made of Russian a nation of "young people", unemployment is very low, only 5.5% and of course level of development of Human Capital is one of causes of this result. Russia is the 1st nation for underemployment rate of people who are from 25 to 54 years old, indeed it is 0.8% only (Human Capital Report, 2015). Russia has also good ranks in high of education; comparing the report of 2013, Russia moved 29 position upper, so it means that Russia is also improving its level of Human capital, and it can be only a god factor to overcome the actual global economic crisis and continue to improve economy (Meduza Journal, 2015). In this way, human capital helps Russia to diversify their economy, first real challenge for Russia.

Paradox is that in Russia, problem of education, and generally of human capital, is considered very much, more than in some countries where objectively it is serious as at first Italy and Spain; these nation, even if are in economical recession, decide to not give a lot of importance to human capital. One year ago, President of Bank of Italy, Ignazio Visco, ex minister of economy, wrote that a continued growth can be supported only by a productivity that require a work force, who knows how to use all potential of new technologies and adapts quickly to rapid changes in the world economy. Then is duty of politic to create an institutional context, which must be more dynamic and competitive in order to know how to valorize new generations (Visco, 2014, p. 3). After one year, on the 21st of October 2015, Ignazio Visco was officially investigated by power of attorney of Italian Republic; he and other seven people are accused of corruption, fraud, abuse of office. 95 million euro of credits inexplicably ended in losses in the financial statements of Banca Popolare diSpoleto, so they are accused of fraud for approximately 100 million euro (Tonacci, 2015).

Of course what he declared one year ago was right and useful, but because human capital means at first people, so not only number and graphics, words and speeches are not enough; to develop human capital society needs fact from all social parties called in cause. Policy, Instruction and world economy must work in harmony to create condition to develop human capital.

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REFERENCES

Dublin, L., & Lotka, A. (1930). The Money Value of Man. Ronald PressCo.

Engel, E. (1883). Der Werth Des Menschen [The value of Man].

Farr, W. (1853). Equitable Taxation of Property, Journal of Royal Statistics, Vol XVI.

Galimberti, F. (2011). Tiranni o democrazia [Tyrants and democracy], II sole 24 ore, http://www.ilsole24ore.com/art/cultura/2012-05-09/capitale-umano-risorsa-preziosa-172836.shtml?uuid=AbgHSBaF

Human Capital Report (2015). World Economic Forum, http://reports.weforum.org/human-capital-report-2015/economies/

Jorgenson, D., & Fraumeni, B. (1989). The accumulation of human and non-human capital 1948-1984.

Khasanova, G., & Rabtsevich, A. (2011). Problemy razvitiya chelovecheskogo kapitala v Rossii, [Development problems of human capital assest], Bashkirian State University, http://research-journal.org/economical/problemy-razvitiya-chelovecheskogo-kapitala-v-rossii/

Koptyubenko, D. (2015). Rossiya ustupila Pribaltike po kachestvu chelovecheskogo kapitala, [Russia has given way to the Baltic States on the quality of human capital], RBK, http://top.rbc.ru/economics/13/05/2015/5553466f9a79475fcf3da4a0

La gran ecnciclopedia de Economia (2009). Capital Humano, [Human Capital], http://www.economia48.com/spa/d/capital-humano/capital-humano.htm

Les fondements théoriques du concept de capital humain [The theoretical foundations of the concept of human capital] (2009), Le site des sciences economiques et sociales,http://ses.ens-lyon.fr/les-fondements-theoriques-du-concept-de-capital-humain-partie-1-68302.kjsp?RH=05

Lodde, S. (2000). Capitale Umano e sviluppo economico, cosa sappiamo in teoria e nei fatti? [Human capital and economic development. What we know in theory and in facts?].

Lovaglio, P., & Vittadini, G. (2004). Il concetto di capitale umano e la sua stima, [Concept of human capital and itsestimation], http://www.statistica.unimib.it/utenti/lovaglio/16.pdf

Marro, E. (2015). Lo sapevi? Hai un valore di 342 mila euro. Ecco cos'è il tuo "capitale umano, [Did you know? you have a value of 342,000 Euros. That's your "human capital"] Il sole 24 ore, http://www.ilsole24ore.com/art/notizie/2015-09-30/quanto-valiveramente-calcolare-capitale-umano-192950.shtml?uuid=ACaZlk7

Meduza Journal (2015, May 14). Rossiya podnyalas' na 29 mest v mirovom reytinge chelovecheskogo kapitala [Russia jumps 29 places in the Human Capital Report], https://meduza.io/en/news/2015/05/15/russia-jumps-29-places-in-the-human-capital-report

Michael, D. (2000). Developing the human capital intensive sector in Russia a chance for economic revival, http://assets1c.milkeninstitute.org/assets/Publication/ResearchReport/PDF/russiain.pdf

OECD (2015). OECD Data, Gross domestic spending on R&D, https://data.oecd.org/rd/gross-domestic-spending-on-r-d.htm

Quintano, C. (2011). "http://www.economia.uniparthenope.it/ Siti_docenti/cquintano/pubblicazioni/Censis_30_settembre.pdf

Rose, G., & Ordine, P. (2013). Il Capitale Umano: Istruzione e Formazione sul Posto di Lavoro, [The Human Capital: Education Workplace, http://www.ecostat.unical.it/Rose/Didattica/ Economia% 20del%20lavoro/Human%20Capital.pdf

Smith, A. (1776). An Inquiry into the Nature and Causes of the Wealth of Nations.

Tonacci, F. (2015). Bankitalia, Visco indagato per la vicenda Popolare di Spoleto, [Bank of Italy, Visco investigated for affair Popolare di Spoleto], La Repubblica, http://www.repubblica.it/economia/2015/10/21/news/la_procura_ipotizza_per_8_persone_i_reati_di_corruzione_truffa_abuso_d_ufficio_e_infedelta_ignorata_d a_bankitalia_l_of-125544660/

Visco, I. (2014). Banca d'Italia [Bank of Italy], https://www.bancaditalia.it/pubblicazioni/interventi-governatore/integov2014/visco-bari290314.pdf