Competitiveness and Economic Growth through Education and Investments: The Case of Moldova

Tatiana PÎŞCHINA[1]

Abstract

This article explores and emphasizes the importance of education and innovation activity for competitiveness, and qualitative economic growth, using the case study of the Republic of Moldova. Specifically in context of globalization, when developing nations experience pressures of economic and societal imbalances, the importance of basic cornerstones of the economy cannot be overestimated. Starting with education, an economy builds the platform to nurture and hopefully retain talent. Entrepreneurs create new business streams, new products and services, and new areas for investment. Investments, in their turn, can be used as another powerful mechanism to obtain quality in economic growth. Besides necessary investments in infrastructure and healthcare, investments into science, technology and various R&D activities that lead up to the increased share of high-technology in the GDP structure of countries like Moldova are necessary, as well as possible due to high potential of Moldova's skilled population making up for the lack of other resources available to the developed economies. In this context, economic competitiveness and qualitative growth by importing, adapting, implementing and developing new technologies, can be reached by the industrializing economies sooner than expected.

Keywords: globalization, developing countries, education, investment, innovation, technology, competitiveness

JEL Classification: 011, 012, 038

1. Introduction

Economic growth and societal well-being receives increased attention in light of current socio-political and economic affairs. Globalization with its fierce competitive forces puts the components of economic well-being at the forefront of related debate. The aim of this article is to contribute with a view on the relationship between competitiveness and economic growth on the one hand, with education, investment and innovation on the other.

The dilemma of the modern generation is partially in the fact that, whilst overall poverty level is decreasing, global inequality gaps continuously persevere, meaning that the difference between rich and poor is wide. The Nobel Prize winner Professor Joseph Stieglitz often mentions in his works that today's inequality indicators are at dangerous levels, and global instability is tightly related to the escalating levels of inequality

[1] Prof. Tatiana PISCHINA, PhD, Dr.Hab, Associate Professor at Academy of Economic Studies of Moldova, Chisinau. E-mail: Tatiana.pyshkina@googlemail.com

(Stieglitz, 2012). For instance, Lenzner considers the following example when 0.1% of the total population, which is about 315 thousand out of 315 million people, makes about half of all capital gains on sales of shares or property after 1 year; while capital gain is at 60% of the income attributable to the business from the list of Forbes Top 400 (Lenzner, 2011). This indicated the importance of inequality, and the notion of economic growth, which includes the creation of wealth among less fortunate layers of the society. Indeed, if in the 1990s, the gap in average income of the 20% richest and 20% poorest households was at 30 to 1, in 2000 that same gap was already at 78 to 1 (Birdsall, 2006).

According to the World Bank (2014), over two thirds of the global GNP (gross national product) per capita were generated per high-income economies in 2015, about one third per share of medium-income nations, and only about 0,5% of global income per share of the low-income economies **(**Lenzner, 2011). This means that while the industrialized, or developed, economies generate proportionately more and more GNP, their low-income counterparts trend negatively. Unequal living standards and economic conditions define reality between the nations, but also within the nations. In part, the problem is caused by globalization, which in itself is a positive influence driving modern societies and economies. As competition becomes more severe, globalization puts pressure of increased asymmetries between economies worldwide, as well as within individual economies and nations. Developed countries, undoubtedly, gain further access to wealth creation, whilst developing once get dragged further into poverty for various socio-economic and political reasons. In this context, developing economies, and Moldova in particular, find it difficult to catch up with the developed ones, and tend to loose rather than gain from most economic transactions in context of globalization in the long-run. Besides the destructive effects to the developing nations, inequality also hinders potential contribution of the latter into the global GNP.

In this light, counteractive measures against inequality constitute the basis of well-being of both the developing and the developed worlds. World's greatest economic and social challenges such as wars and other devastating events arise from inequality. This particular article discusses the position of the Republic of Moldova, addressing the power of education, investments and innovation-creation, competitiveness and qualitative economic growth. In this context, growth with quality, or qualitative economic growth, is growth where healthy building blocks create inner competitiveness of an economy.

2. Moldova As A Case Study

2.1. State of the Economy

Republic of Moldova is an interesting economy for several reasons, as it is a case-study with structurally inbuilt challenges and opportunities. Moldova gained its independence in 1991, however, it is the only post-Soviet nation that did not reach its 1991-level of economic development (GDP per capita) (EGPRSP, 2004). In fact, Moldova has evolved from one of the richest Soviet republics to the poorest country in Europe, with median monthly income of $250 and GDP (Gross Domestic Product) per capita of around mere $2000. Notably, the share of Moldova's GDP has been trending negatively since the 1990s, in global and more narrow, European, context. In 2015 Moldova's nominal GDP

per capita was around $1700 a year rising to a bit over $2000 in the subsequent year, whereas in 2013, it was at over $2200 (United Nations, World Bank, 2013, 2014). In 2016, Moldova's GDP was valued at $6,79 billion and trade openness at 91,9% (Birdsall, 2006, NBSRM, 2016, World Bank Statistics Database). Table 1 below summarizes the downward slope from 1990 to 2015, when Moldova's GDP landed at 0,01% of the global, with GDP per capita about 18 times lower than European Union average. Thus, Moldova balances on the edge of economic survival.

Table 1. The Share of Moldovan GDP in the world economy, in the European economy, in the Eastern European economy, %

Share of Moldovan GDP in the	1990	2015	deviation
Global economy	0,017	0,011	- 0,006
European economy	0,046	0,037	-0,009
Eastern European economy	0,44	0,22	-0, 22

Source: Based on data from Quandl (2016)

Assessing broader business environment, Table 2 below summarizes key indexes that demonstrate Moldova's position in various international rankings. Notably, in 2015, Moldova was ranked at 114th place by Human Development Index that also placed Moldova at 'low-to-medium' level of economic development (UNDP, 2016). In 2008 the same Index put Moldova as 113th, while in 1990 it was 64th, which means that the country experienced considerable drop in the past decades. Also worth mentioning that Moldova entered its post-Soviet era as industrial-agrarian economy (Pischina, 2007, 2007a) whereas today Moldova's industry is in rather poor shape. In other words, Moldova dropped in ranks on key positions, such as competitiveness and economic freedom.

Table 2. Moldova's Business Environment, Key Indexes, 2015, 2016

Key Index Rating	2015	2016
Global Competitiveness Index	82	84
Index of Economic Freedom	111	117
Global Innovation Index	46	44
Logistics Performance Index	93	96
Global Enabling Trade Index	92	79
Doing Business	63	44

Source: UNDP (2016),IMF (2016),Heritage Foundation (2015,2016), WEF (2014,2015), WIPO (2015,2016), World Bank (2015,2016,2017), WB/IBRD (2014).

Negative dynamics in the nominal GDP per capita in Moldova is a combination of several factors, such as absolute decrease of labour, capital, technologies, erosion of the structure of the economy and production volume (EGPRSP, 2004). Since 1991 Moldova lost most of its large industrial enterprises, i.e. electronics, machinery/instruments. The relationship between higher education and real economy is rather weak both at the level

of individual firms and at the level of public organizations, thus there is almost nowhere to 'apply' the knowledge for students, which makes it difficult for young and talented professionals to stay within national labor force and create enterprises, in particular. Decisions at the state level are also seemingly taken without regard to macroeconomic laws. This, in simple words, describes Moldova's phenomenon, it sort of climbs the structural ladder downwards, meaning that whatever development the country experiences is without real growth. This article suggests that partially the decay of Moldovan economy can be explained by the erosion of the key building blocks of the economy, such as education system and labor market situation that does not allow to either produce innovation or exploit entrepreneurship, resulting in continuous brain drain from the country, and the low share of profitable activities in Moldova's economy. Additionally, investment policy in Moldova is rather weak, when it should be targeted at rebuilding key cornerstones of the economy, such as infrastructure and technology-intensive industry.

2.2. The Structure of Moldovan Economy

This article considers the importance of education and investments for qualitative economic growth, at the same time suggesting that the share of innovation in an economy defines its potential to achieve it. Theory and practice suggest that the structure of an economy is one of the key factors of economic growth with development, or inclusive growth. The countries which build in industry and technology in their economic structures are more likely to succeed. This is as true in post-war economic history, as it is today. For instance, in the 1960s and 1970s, the countries with the fastest rates of GDP growth (about 3,5% annually) were those with the largest share of machinery within their industry. Those with larger shares of natural and mineral resources grew by about 2%, finally, agrarian, or agricultural economies, grew by about 1,5%.

The dynamics of the GDP structure in Moldova, presented in the Table 3 below, shows that Moldova's GDP structure changes in context of global economic tendencies. Since the Services sector accounts for the main share of value added, 59,4% (compared to the global of 64%) and the share of agriculture is decreasing, the economic structure may seem rather progressive.

Table 3. The Dynamics of the Structure of GDP of Moldova

GDP Structure, %	2000	2001	2002	2003	2004	2014
Gross value added	87,5	88,0	87,3	85,6	85,0	84,3
Agriculture	25,4	22,4	21,0	19,3	17,1	12,8
Industry	16,3	18,7	17,3	17,8	18,2	14,1
Services	48,2	49,2	51,0	50,8	52,2	59,4
Fin. intermediation services (indirect)	-2,4	-2,3	-2,1	-2,3	-2,5	-2,0
Net taxes, products: (taxes – subsidies)	12,5	12,0	12,7	14,4	15,0	15,7

Source: Based on NBSRM (2016)

However, value added in Services sector – through finance and trade – is merely a 'formal' contribution, in contrast to real, reflecting only a wage increase of individuals engaged in relevant business dimensions, and not of the economy as a whole. In addition, since 2000s, the share of agriculture started to pick up again within the global GDP landing at approximately 32%. Moreover, the development of one of the key services – trade – is mostly dependent on import of Moldovan products by the developed economies. For instance, in 2013, Moldova's GDP was at $7,453 billion, while the share of import was at $5,492 billion, or at 73,7%. In 2015, import was at $5,3 billion. The export share, at the same time, was about two times smaller and landed at $2,4 billion (NBSM, 2016, IMF, 2016), which does not help Moldova to counteract its high external debt, which is more than 80% of GDP. In addition, Moldova is highly dependent on its European Union partners, which since 2008 absorb about half of its external trade (46,4%), which naturally impacts Moldova's balance of payments**.** In 2015, Moldova's export to the EU shrunk by approximately 2,3% (to $1,1 billion) versus 2014, and import decreased by about a quarter, to $3,6 billion, as the interest of the developed economies to import finished industrial products from their less developed counterparts is decreasing. The demand on imported products is mainly covered by Moldovans working abroad. They contribute by about $1,5 billion yearly. This is considerably higher than the contributions of the foreign investors.

In addition, today, Moldova is one of the leading (top 8 out of 10) nations when it comes to healthcare and education spending, landing at about 12% and 8-10% of GDP, respectively. This is a rather high level only affordable to a limited number of economies. Despite that being the case, average longevity in Moldova is 70 years, throwing it to the 142nd place in the world, and 120th and 130th places, respectively, in maternal and child death (World Bank, 2016). Thus, there is obviously a challenge in terms of social services that Moldova is able to offer to its citizens.

In this context, it is also relevant to consider *how* the nations grow. Referring to World Bank, there are three consecutive stages of economic journey, from the first factor-driven to the second efficiency-driven, to the third innovation-driven stage of economic development (Schwab, 2015). Moldova is placed somewhere in the first towards the second stage of economic growth contrasting to its 1991 firm position as 'efficiency - driven' economy (for detailed analysis see Pischina, 2007, Pischina, 2007a, Pyshkina, 2002). The picture reflects overall condition of innovation in Moldova's economy, the share of which is currently dangerously low.

In order to reach prosperity, various nations climb the 'structural ladder' utilizing own resources and capabilities, national interests and international context (Pischina, 2007). Globalization, as stated previously, poses additional dividing labour and capital in favour of the developed economies and creating gaps in resources and capabilities. In this sense, economies with higher share of high-technologies are ripping most benefits of post-industrial, information and high-technology era. Thus, it is unlikely that an economy becomes competitive, effective and prosperous when the share scientific and technological activities in its economy is less than 0,35% of GDP, which is the case in Moldova (in comparison, average EU spending is 2 to 3% of GDP). Thus, peripheral economies as Moldova, on the contrary, are not able to compete being dragged back in

some key respects in condition of globalization.

The above discussion uncovers deep structural challenges to Moldova and countries alike that lack key building blocks to create growth with prosperity. Moldova is in desperate need of an increase in high technology share in its infrastructure and its economy, to start with, as it is in creating solid base for its young professionals to engage into entrepreneurial activities. As much as Moldova is unique in its development path since the 1990s as well as its socio-economic condition, it shares commonalities with other developing economies in terms of the erosion of key building blocks of the economy. The following discusses those building blocks in more detail, pointing to the possibilities for Moldova and the economies alike to embark the qualitative growth journey.

3. Building Blocks of Qualitative Economic Growth

Considering the state of Moldovan economy, the prospects for growth appear only if essential economic cornerstones are recreated. This study makes the case that education and investments into innovations and other technology-intensive business activity can be used to curb the downward spiral. Investments trigger activities that increase qualitative share of the economy - innovations. That is when they comprise the true, or material, base of the economy. Innovations impact the change in the sources, types and quality of economic growth. In this way, they create quality in economic growth, which is reflected in production methods, new goods and services, as well as governance and management techniques, in other words, in all other spheres of economic activity. Quality in economic growth, in its turn, creates competitiveness, thus socio-economic well-being of the population in the long-run. As the result, technologically-induced transition to the higher stages of economic development takes place.

Arguably, the state of Moldovan economy, as well as many economies alike, does not allow to fully exploit the potential of technologically-induced economic growth, as the share of innovation and technological activity in the economy of the developing nations is normally rather small. However, this study suggests that with the help of investments, into education and innovation in particular, the development slope can turn upwards, and steeper than may be anticipated. It may be also assumed that today, when the IT-revolution is peaking and the global market is booming with technology, business, economic, political and other transactions shaping the future of even the most developed economies, is the perfect time to act to restore the position of Moldova and economies alike. As Keynes once noted, the best times to act are the times of growth, and not the fall of an economy. In this way, by creating crucial elements of innovation-driven growth into the structural ladder of the national economy, a few stages in economic growth that a nation normally has to go through, can be skipped at once creating faster economic growth.

Normally, private sector plays an important role in sustaining, or creating, economic growth. However, nations like Moldova are devoid of strong private sector that is able to push economic development forward to the necessary extent. This puts more emphasis on the role of the government, which has an ability to support economic growth by investing more despite budget constraints. Thus, the developing economies in particular should avoid the trap of long-lasting idle mode, neither obviously recovering

nor entirely collapsing, as it happened in the 1930s (Krugman, 2012). Idle mode, unfortunately, is the more appropriate characteristic that in most cases can be applied to Moldova and economies alike today.

Therefore, action is needed in the immediate future to start rebuilding the cornerstones of the economy. This article suggests at least three steps that will help trigger economic development with qualitative growth:

- Firstly, education system, especially higher education, must be reinforced and improved. Investments into education system, including the contents of the curricula and the technology around it, are essential to recreate economy's potential to crease innovations and entrepreneurs,
- Secondly, foreign investments into economy and businesses is essential to recreate private sector that is one of the main engines of qualitative growth through job and wealth creation,
- Finally, the increase in innovative share in economic structure will help to create technology platform in order to hop over a few stages in economic growth offering developing economies quicker path to success.

3.1. Education

The relationship between education and science on the one hand, and competitiveness and technological activity on the other, has been explored though various angles. International economic discourse sometimes refers to a concept similar to the one illustrated in Table for, with reference to constituents of economic growth. This study describes mainly the effects of the first, second, third, fourth and sixth, however, it is important to bear in mind the complete value chain that is most effective to ensure long lasting economic growth with quality, also referred to as inclusive economic growth.

The importance of the first pillar dealing with education is hard to underestimate. In an economy with healthy competitiveness potential, education will form the background for economic activity though skilled labour force and healthy domestic labour market, as well as booming private sector in particular, hopefully with the large share of high technology activities, which will serve as basis for investments. The priorities of the education pillar, among others, are defined as:

- high-quality skills through learning
- inclusive education, equality and non-discrimination
- open and innovative approach
- support for teachers and professors across disciplines
- transparency of skills and qualification
- sustainable investment supporting quality and efficiency

In this context, tailored approach to university curriculum can boost the capacity of future professionals to create innovations and businesses, while creating jobs and avoiding brain drain. When individual success is possible, overall economic competitiveness by means of nation's own resources increases. Thus, education pillar positively affects the employment pillar, which should nonetheless be supported by appropriate compensation of labour based on market conditions. In addition, entrepreneurship and asset-building of

the economy through creating small and medium size businesses across various sectors, in particular, is necessary to create profitable growth of the nation.

Table 4. Pillars of Inclusive Growth (Qualitative Economic Growth)

Pillar 1: Education & Skills	Pillar 2: Employment & Labour Compensation	Pillar 3: Asset building & Entrepreneurship	Pillar 4: Financial Intermediation of Real Economy Investment	Pillar 5: Corruption & Rents	Pillar 6: Basic Services & Infrastructure	Pillar 7: Fiscal Transfers
-Access -Quality -Equity	-Productive Employment -Wage & non-wage labour compensation	-Small business ownership -Home & financial asset ownership	-Financial system inclusion -Intermediation of business investment	-Business & political ethics -Concentration of rents	-Basic & digital infrastructure -Health-related services and infrastructure	-Tax code -Social protection

Source: WEF (2017)

Even though investment statistics do usually provide enough explanation and correlation with competitiveness as such, the scientific potential of a firm has substantial impact on economic competitiveness. Thus, the share of research and development activities, especially when it comes to high technology products and services, to a large degree determines competitiveness. R&D activities usually depend on the quality of education and training of young professionals. In this way, clear link between education, science, and national competitiveness can be established. Education and science leads to innovation and entrepreneurship, which in its turn leads to increased competitiveness in knowledge-based economy, and finally to qualitative economic growth. To be able to introduce such growth in Moldova, basics of the economy have to be rebuilt after years of unfortunate economic downward slope experienced.

3.2. Investments

Position of the developing countries such as Moldova is rather vulnerable at a global stage, as previously discussed, where the forces of globalization create asymmetries between and within various nations. Investments is another powerful tool to sustain 'real' growth of the economy, or inclusive, or qualitative, growth. It is available in economic policy toolbox and is effective especially in conditions of weak and sometimes inadequate credit and monetary policies. This brings to the fore the sixth pillar of inclusive growth. However, in view of this study, not only should the investments be made into infrastructure and healthcare, but also into innovative activity, technology and entrepreneurship.

The obvious strengths of investment programs is in their effect on capital accumulation, and the expansion of economic and technological potential. Without investments, both internal and external, the economy stagnates being unable to recreate itself even under normal market conditions. For instance, if an economy is dominated by low income households unwilling or otherwise unable to support it by injecting money, the economic turnover and growth rate will eventually stagnate. Investments are crucial, yet the optimal level is not easily attainable for the developing economies, particularly when it comes to foreign investments. Economies with lower development levels are usually prone to low national savings and low GDP, coupled with negative labor productivity and resource lack, all of which creates economic climate unfavorable for investment ambitions.

Investments provide the opportunity to turn around the economy by uniting key components of the production chain into full-fledged industrial clusters. As noted previously in Table 4, investments into infrastructure as important, as they are usually massive projects with multiple external effects with positive long-term socio-economic impact. They secure growth in production capacity across sectors of the economy. Production capacity, in its turn, boosts aggregate demand with multiple positive external effects. Equally important are the investments into the innovative activity in the economy. Global practice demonstrate multiple positive effects, particularly when partnerships between larger and smaller businesses, venture capitalists, and the government are established, since those actors are able to support innovations from idea to commercialization from various angles.

Even though Moldova today finds itself in a challenging position, it has a number of advantages that make it lucrative to invest into. The country favourably located, which can attract business interested in the dynamic Eastern and Western European markets. It has enormous potential in its agricultural sector, with strong history of production of wine, fruit, walnuts, sunflower, and meat exported to Eastern & Western partners. It offers high connectivity and high-quality education and healthcare, and most importantly is not prone to conflicts thus offers relative safety and geo-political stability. Moldova is overall strong in the spheres of microelectronics and semiconductors, including laser technologies. Moldovan physicists closely cooperate with the world centers in USA, Russia and other partners producing semiconductor materials and devices based on them. IT specialists of Moldova are considered to be among the best in Eastern Europe. Moldova's non-profit sector is a form of entrepreneurship working to support social security through a number of foreign investments. Besides that, European Bank for Reconstruction and Development holds a portfolio of around half a billion euros in Moldova, including twelve projects, eight of which in the private sector, for example Draexlmaier (German producer of parts for automotive). Overall, Moldova managed to attract about $3,5 billion with capital rate at 15-16%, which is more than half of its GDP. Building on its potential, in the next five years, the country must be able to accumulate about twice as much capital in foreign investments.

3.3. Increasing Innovative Share: Technologic Leapfrogging

Investments into infrastructure and other basics of the economy and society are important. Yet, for countries like Moldova, investments must be made in innovation-based type of economic growth. That is, economic based not on the production and consumption of material goods as such, but on creation and consumption of information-technology goods and services, in other words, high-technology products. This may seem like a controversial statement given the low share of innovation and technology, as previously discussed, and the high share of agriculture combined with low productivity problem in Moldova's economy today. According to the World Bank, the value added per worker in agriculture in Moldova is approximately $2,5 thousand, compared to Spain with $45-50 thousand, or Norway of up to $70 thousand, or European Union average value of approximately 20 times higher than in Moldova. Thus, labour and cost intensive agricultural products are the main source of export and heavy industry is unlikely to be the basis of economic growth.

However, this study suggests that changing the structural component of the investments into innovation-driven sources, types and quality of economic growth is possible and even necessary, as they comprise the basis for qualitative, inclusive, economic growth. Innovation factor must also be included into the development of key infrastructure, including digital economy. Moldova with its high potential in high technologies, supported by investments into education as described previously, has the potential and the prerequisites to create knowledge-based economy, by integrating innovations into its main structures.

In this context, Moldova should also be able to reap the benefits of globalization, with its integrative power, where the activities of international corporations penetrate national markets and economic structures across borders and regardless of the structural stage of their economies. In this way, the developing economies like Moldova get a unique chance to climb several levels in the structural ladder at once, increasing high technology share in their economies at a reduced time, and catching up with their industrialized partners.

Herein, technological component of the economy may be approached differently to most highly-developed economies of today that have overtime been focused on creation of own innovations, United States being one prominent example of such (see discussion in Pischina, 2007). Instead, Moldova and countries alike may approach innovation creation through importing and integrating existing innovations. The effectiveness of this approach is proven by a number of global economies, including, for instance, Japan and China. Imitation and adaptation of the new technologies is a borrowed concept of technological 'leapfrogging' found in particular in mobile systems and technologies, which allowed developing economies to establish infrastructure at times superior to that of the developed economies, although as a later stage (Goldemberg, 1998, Murphy, 2001). In this way, the economies that are late to the industrialization game can jump over various inferior or more costly and less efficient technologies that the first movers had to go through in the stages of development of those new technologies, in other words they can climb several stages of the structural ladder at the same time (Lenzner, 2011).

However, rather than merely consuming existing methods and technologies of already existing inventions Moldova, in contrast to other examples of nations with comparatively lower levels of economic development, is capable to use its own potential in terms of research and development, as well as testing and implementation of the new technologies. As previously described, the country's own highly qualified professionals in IT, physics and chemistry can further develop existing innovations and produce new goods highly competitive not only due to lower costs of the labour force, but also because of their quality according to global standards. In this context, there is certainly a window of opportunities for Moldova to create meaningful growth for its society.

The potential of the ongoing revolution associated with computing technologies is borderless and far from fully understood, which gives room for new products and services to be developed across all spheres and industries, from robotics to home appliances. This facts opens up numerous opportunities for smaller developing economies, such as Moldova, to become the outsourcing, testing, implementation and development hubs for the upcoming technologies whereby creating economic growth and well-being for its core population. As the global economy becomes less and less resource-intensive in the traditional sense, shifting from production to the intangible resources represented by the people, the possibility to exploit its potential in terms of highly educated labour force is now unique for Moldova. In order to trigger this transformation, the key building blocks of the economy must be created, most importantly, education, investments into entrepreneurship and infrastructure, high-technology, people and other sources of innovation, as well as through partnerships uniting large corporations and businesses with smaller firms, as well as venture capital funds and 'angel' investors with direct support of the government securing the evolution of innovations from the first stages through commercialization. Thus, Moldova must create innovative type of economic growth based on the creation and consumption of information and technological goods and services.

In order to trigger those investments, it is necessary to increase the interplay between businesses and the government based on shared understanding of common needs and to create adequate fiscal, administrative and regulatory conditions for businesses to overcome challenges related to consolidation and modernization of Moldova's business, as well as to increase competitiveness and capital intensity in the economy and to provide new work places for Moldova's population. Moldova rests, among many, with one of the most challenging issues caused by globalization, which is to effectively integrate into the global context and to preserve national interests while taking care of various resource limitations. It is important to build effective horizontal touch-points with other regions, the EU and Russia, having a clear socio-economic strategy that would help to secure stable and profitable levels of economic growth in the long term.

4. Conclusions

This article is intended as overview of the relationship between competitiveness and economic growth on the one hand, with education, investment and innovation on the other, using the case study of the Republic of Moldova. The appropriation in levels of competitiveness differs depending on the stage in economic development of a given nation. Indeed, some argue that there is an optimal level of competition for certain

economic conditions, and that maximum competition is not always better (Singh, 2002). This article highlights the positive effects of competitiveness for economies balancing between factor-driven and efficiency-driven stages of economic growth. The example of Moldova shows that there is high potential for developing economies with a share of skilled intangible resources, given that the key building blocks of economic growth are reconstructed, such as education, infrastructure, entrepreneurship and the share of innovation.

As globalization affects various nations in various ways, it can be both an enabler of economic growth and a limitation through inequality gaps between developed and developing economies. In this context, the latter must find a way to restructure towards growth and to remain competitive. To do so they must orient their efforts into technology, infrastructure, people and other sources of innovation, since they lack some of the crucial components of growth available to the developed industrial economies. This study emphasizes at least three steps that will help to gain growth with quality: improve the education system, especially higher education, including scientific research; attract foreign investments into economy and businesses; increase innovative share in economic structure and build technology platform to leapfrog through various stages of technological and economic, or 'structural', ladder.

Quality of economic growth is determined by the qualitative components of an economy. Therefore, it is important to build blocks to create those qualitative components, such as solid education and science, and investments, both in core elements such as infrastructure, and into entrepreneurship and technology-driven part of the economy. Investments into infrastructure have an ability to induce multiple and long term positive outcomes, to stimulate aggregate demand and positive socio-economic impact. Moldova must create an infrastructure with higher qualitative share of innovations able to justify higher levels of investments, substituting today's 'competitive' condition of cheaper land and labour force. Moldova must be able to promote what actually makes it qualitatively different from its neighbours: safety and stability, high connectivity, high-quality education and healthcare. In this way, increasing the share of innovations opens new frontiers for creating competitiveness, and thus economic growth in conditions where technological progress is limitless. Thus, the possibility to hop over several stages of the structural ladder at a time entering the path towards qualitative economic growth is an attainable goal for Moldova and countries alike. This article notes only a few crucial components for qualitative economic growth. It addresses how the power of education and science can spur investments and innovation-creation, which in its turn increases competitiveness. However, the entire value chain must be addressed and reconstructed to create meaningful bottom-up economic growth in the long run.

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