

the Georgian universities', because of preparation process for the authorization and the rising level of the competition, it's better somehow to combine both approaches. First of all, they need to start with classical one, because HEI's need to make many different kind of analyses to find a proper starting point, their place in a market, to set the reachable goals, to define their resources, potential, main stakeholders, custom demand and etc. Step by step, universities can shift to the integration of modern approaches in strategy making to become more successful competitors at the international level.

1.10. Prospects for the development of higher education system in Ukraine

Within the global social and economic space provision of conditions for education development has become one of the state priorities in Ukraine, so long as education performs an important social function – preservation and augmentation of human capital as the key factor of competitiveness and sustainable development of the country. Education and science are designed to create foundations for nation's development on the basis of innovations, taking into account the needs of the country in whole, as well as every person's needs. Analysis of the current trends in the national education system development as a constituent of social and economic processes in Ukraine, has shown that education space is not an exception when it comes to the influence of globalization and integration processes. The above mentioned determines the subject-matter and the vector of development for all branches of education, thus encouraging the search for new forms and technologies to be applied in education.

Rapid development of information technologies and means of telecommunication, integration of education, science and production, country's dependence on the processes taking place in the world overall as well as severe competition between higher education institutions, demand changes in the priorities set for scientific and education spheres' development. Measurements and the key trends of the country's education system development belong to the key indicators that are taken into account while calculating the index of global competitiveness of a country.

At the current stage of Ukraine's development complete renewal of national education system seems to be necessary, since it is one of the fundamental factors of country's development as a contemporary democratic European state. Taking this into consideration such issues become urgent as the analysis of the problems and prospects of its development, education system adaptation to today's conditions etc. These are the prerequisites for implementation of strategic goals in the area of

ensuring higher level of competitiveness for Ukraine's economy, its further economic growth and sustainable development.

Such scientists as O. Belash, I. Garaiev, V. Lazarev, I. Losheniuk, S. Mohnachev, T. Nefedova, N. Pashchenko, I. Tarasenko, Kh. Faskhiev have devoted their research to development of higher education institutions in reference to European integration and globalization processes, analyzing also the related financial, economic and social factors. Similar issues concerning the state of education sphere financing are an integral part of the research carried out by such national scientists such as O. Vasylyk, V. Haiets, V. Hlushchenko, I. Hryshchenko, O. Boiko, S. Zakharin, T. Obolenska, P. Sabluk, I. Chugunov and others.

Studying the current trends and problems of higher education development, it should be noted that situation at the national market of education services becomes more intense from year to year and the system of higher education institutions management, taking into account their current conservatism and dependence on budget financing, requires profound changes. At the same time Ukraine occupies one of the leading places in the world by the level of higher education financing, allocating funds from the budget in the volume of more than 2% of GDP annually, while the level of private financing, in other words tuition fees paid by contract students, in Ukraine keeps pace with the world level, that is, amounting to 0,7% of GDP¹¹².

The competitiveness level of higher education institutions in national and international ratings is an important indicator of the development level of the education system of the country. On the basis of analysis of the national universities positions in the most authoritative among the experts and mass media national and international ratings of higher education institutions ("UNESCO", "Compass", "Webometrics", "Top-200 Ukraine", "Scopus") the group of leaders of the consolidated rating of the Ukrainian higher education institutions in 2015 has been identified and the conclusion has been made that the assessment of their prospects development and achievement of high competitiveness should be carried out proceeding from those kinds and forms of activity, priority development of which can ensure the necessary breakthrough for higher education institutions and those which define their public image in the modern period, guarantee uniqueness and create profound competitive advantages. This is the primary goal of the strategic management of higher education institutions and preconditions the necessity of studying the main factors that determine competitive advantages of higher education

¹¹²Finansuvannya systemy vyshchoyi osvity: svitova praktyka i ukrayins'ke s'ohodennia [Financing of higher education: the world practice and Ukrainian nowadays] [Electronic resource] / Vykladennia dopovidi CFSE-Ukrayina. – Access mode: <http://liberal.in.ua/tochka-zoru/vikladennya-dopovidf-case-ukrayina-finansuvannya-sistemi-vischoyi-osviti-svitova-praktika-i-ukrayinske-sogodennya.html>

institutions on the world market and correlate with the system of relevant criterial characteristics of the international university ratings.

The solution of the problem of reforming the system of higher education to meet the contemporary socio-economic and political conditions in Ukraine requires research and systematization of internal and external factors, which determine the problems and opportunities for the development of higher education on innovative principles in the context of global trends and challenges of globalization.

In scientific literature, there are three main groups of factors that affect the level of development of modern system of higher education¹¹³: (1) general (global) factors that are common throughout the world; (2) specific factors that are common to a particular group of countries; (3) specific (internal) factors that are typical to the specific country.

To the first group of factors it¹¹³ is proposed to include: the transition from industrial to information society; the deepening of processes of globalization and integration, the impact of these processes on the development of the education sector; the emergence of new threats and challenges for the development and existence of mankind; the increasing role of higher education for social development; transformation of higher education from an elite to a mass phenomenon; the lag of development of higher education from the development needs of society and the economy; the emergence of new forms and types of educational services; insufficient number of system-analytical researches of problems of development of higher education and others. The existence of these general factors determines the need to make the scientific analysis of the problems of higher education more profound in all countries of the world.

The specific (group) factors scientists systemize according to the groups depending on the level of development of countries and their experience and achievements in the field of higher education¹¹³: world leaders, countries with a high level of development and international recognition of education system (UK, France, USA, Canada, Switzerland, etc.); modern developed countries (Japan, South Korea, Taiwan, etc.); countries that are rapidly developing (Brazil, Mexico, Taiwan, etc.); the countries of slow development (mainly in Africa); post-socialist countries or countries of a transitional type, one of which is Ukraine. Such a division is quite successful and is justified by the level of technical, political, social and economic development of the countries of each group.

¹¹³Plakhotnyk O. Analiz faktorov razvitiia sroemennoho vyssheho obrazovaniia v mire i v Ukraine [Analysis of the factors in the development of modern higher education in the world and in Ukraine] / O. Plakhotnyk, A. Beznosiuk // Porivnyal'no-pedahohichni studii. – № 1 (11). – 2012. [Electronic resource]. – Access mode: <http://pps.udpu.org.ua/article/view/18675/16416>

For post-socialist countries specific factors are^{113,114}: the need to study and implement the experience of higher education development in the developed democratic countries; the transition to reform its own higher education system; integration processes; the necessity of informatization, humanitarization and humanization of higher education; the need of democratization of higher education and decentralization of management.

However, the development of the higher education system in Ukraine affects not only general and specific domestic factors, but also factors that are specific to the national educational space. In 2002 Finkov T. V. categorized these factors as¹¹⁴: pre-crisis state of higher education, which lasts from the time of independence; the need to study the strengths and weaknesses of the national system of higher education; the need of studying the best experience and traditions of the national high school; the complexity of the processes of spiritual rebirth, of nation building and the creation of the state; the need for conceptualization and paradigm shift of higher education development; the need to improve its own legislative framework; the feasibility of creating a modern model of a higher education institution by combining the best achievements of national and foreign higher schools; the need to identify strategic directions of development of domestic higher education; a need for a new economic, environmental, legal, political and valeological thinking 6; the deepening crisis of higher education; creation and development of higher education institutions of non-state forms of ownership.

We have to agree with the author of the work¹¹³ that most of these factors have not lost relevance in the present time, which increases the relevance of research in this area. Thus, in particular, the factors of political, economic and social crises in Ukraine had a negative impact not only on the development of the education system, but represent a threat for the development of the state.

To particular factors that determine the trends and influence the direction and pace of development of higher education in Ukraine at the present stage should also be included the following: reduction of competitiveness of national higher education institutions and, as a consequence, the outflow of students and scientific - pedagogical workers abroad; the loss of the potential of scientific schools; the loss of prestige of the professions of a scientist and educator; the underfunding of higher education institutions; debt crisis as a result of inflation; a worsening of the demographic situation and socio-economic shocks; the need to develop adequate modern tasks and challenges of globalization development strategy of the national system of higher education in the process of entering of Ukraine into the European education and scientific space.

¹¹⁴Finikov T. V. *Suchasna vyshcha osvita: svitovi tendentsii i Ukrayina*. [Modern higher education: global trends and Ukraine]. – K.: Takson, 2002. – 176 p.

The study included the analysis of the current situation and the conditions that determine the development trends of the national system of higher education. One of the main indicators of development of the education system is an indicator of the number of persons enrolled in preschool, secondary, vocational and higher education institutions of Ukraine¹¹⁵. The analysis showed that during 1991-2015 the number of individuals enrolled in primary and secondary schools significantly contracted. This is to some extent due to the difficult demographic situation in the country, a decrease in the solvency and quality of life of the population, which affects the ability of young people to continue their education in higher education institutions and secondary schools. This to some extent is explained by the complicated demographic situation in the country, reduced ability to pay and living standards that affect the possibilities of young people to continue their education at universities.

It should be noted there are significant disparities in the ratio of the number of people studying in vocational schools, higher education institutions of I-II and III-IV accreditation levels. The analysis shows that the most effective form of training is vocational training, which is carried out jointly by universities and employers. This combination may provide a partial solution to the problems of education financing, employment of graduates, due to obtaining knowledge and skills that enhance their competitiveness in the labor market. However, given the high level of education and professional qualification of certain categories of the working population, it is required urgent improvement of equipment and organization of work at existing workplaces, which enables more efficient use of existing human capital of the state.

Education development is also largely determined by the availability and accessibility of social and cultural benefits, as the level of cultural environment not only encourages youth to get education, but also significantly influences learning outcomes. Quantitative measurement of this effect is quite complex and has a nominal character. Thus, the data on the availability of cultural institutions in Ukraine and the number of visits per year during the 1991 - 2015 shows the reduction of the mass universal libraries, movies demonstrators and clubs¹¹⁵. However, the number of professional theaters, concert halls and museums has increased during this period. But all cultural institutions have a tendency for reduction the number of visits per year. The above is the result of the rapid development of information and telecommunication technologies.

The main economic factors of education development due to the results of the studies: the level of economic stability; GDP (including per one person); inflation rate; the level and structure of income and spending. In Ukraine, GDP (both in general and per person) varied considerably and was very low during the 1996-2015,

¹¹⁵Derzhavna sluzhba statystyky Ukrayiny.Ofitsiyniy sayt [State Statistics Service of Ukraine.Official site] [Electronic resource]. – Access mode: <http://ukrstat.gov.ua/>

and its growth has been accompanied by increasing consumer prices for goods and services, the growth of external debt, and no economic growth.¹¹⁵

The constant growth of consumer prices in Ukraine in 1996-2015 is the result of permanent inflation processes, that accompany the transformation of the economy of Ukraine. The increase in consumer prices has a negative impact on the social sector and in particular the development of education, since it leads to lower purchasing power, and thus the availability of educational services and other social benefits needed for effective personal development.

The financial and economic relations in higher education are governed by the Law of Ukraine "On education", as reflected in section XII of the Law¹¹⁶. In general, all the sources of funding of education in Ukraine are divided into two main funds: the state budget and extrabudgetary funds. Directions of funds distribution of national and local budgets for education are defined by the Law of Ukraine "On Higher Education"¹¹⁶ and "On education"¹¹⁷.

The limited volume of budgetary funding causes universities to search additional funding - funds for paid services provided by higher education institutions, which are accumulated in so-called special fund. According to the Law of Ukraine "On Education" additional sources of formation of special fund for funding the education system in Ukraine may be¹¹⁷ funds received for education, training, advanced training and retraining of personnel according to the contracts concluded; fee for providing additional educational services; funds received for research works (services) and other works executed by institution commissioned by enterprises, institutions, organizations and individuals; income from product sales of training and production workshops, enterprises, shops and economies, from leasing premises, facilities and equipment; subsidies from local budgets; dividends from securities; foreign exchange earnings; voluntary cash contributions material assets received from enterprises, institutions, organizations and individuals; other funds.

However, the main source of funding of most state universities are still funds of state and local budgets allocated for training specialists within the public order and conducting scientific research. According to Art. 61 of the Law of Ukraine "On Education", the state is obligated to provide budgetary allocations for education of at least 10% of national income¹¹⁷. At the same time, the analysis shows that the article has not been performed in any budget in Ukraine since its independence. In 2010, the figure was 2.3% of GDP, in 2011 and 2012 - was 2%. Ahead of Ukraine is only Denmark - 2.41% of GDP¹¹². However, budget expenditures mainly provide

¹¹⁶Zakon Ukrayiny «Pro vyshchu osvitu» [The Law of Ukraine "On Higher Education"] [Electronic resource]. – Access mode: <http://zakon1.rada.gov.ua>

¹¹⁷Zakon Ukrayiny «Pro osvitu» [Law of Ukraine "On Education"] [Electronic resource] / Access mode: http://www.osvita.org.ua/pravo/law_00/ua

financing costs of state universities on scholarships partly salaries and utilities. This is because normative method of determining the amount of financing that is used as a method of distribution of budget funds, suggests adjustments towards reduction due to the scarcity of the budget. Thus, we can conclude that the relationship between the budget and off-budget financing of education depends on the actions of a large number of factors, including: the rate of economic development, the availability of budgetary resources provided by adequate public policy in education, form

Thus, we can conclude that the ratio between budgetary and non-budgetary funding of education depends on the large number of factors, namely: the rates of economic development, the availability of budgetary resources under an adequate state policy in the sphere of education, the ownership of the university and the effectiveness of management. It should also be noted that any change in education is impossible without adequate financial support, and the considered experience shows that the budget is the dominant source of funding and development of a state university. Given this, diversification of education funding sources is one way of reducing resource dependence of universities on the state. This problem is particularly acute due to the financial and economic crisis, threatening the development of higher education in Ukraine¹¹⁸.

An important indicator of the education system development and ensuring its competitiveness is the dynamics of the rate of investment in the education sphere (Fig. 1.13), especially considering the fact that Ukraine has chosen the model of economic development based on knowledge.

The analysis shows that over this period there was an annual decrease in the level of capital investment in education (except 2016) against fluctuations in the overall volume of capital investment in research and development.

Direct investment facility of international organizations and the tuition of foreign students hold pride of place among the sources of financing of higher education institutions of Ukraine.

More than 27 thousand students from more than 110 countries are getting higher education in Ukraine. In the framework of European Union programme TEMPUS 126 projects with a total budget of over 27 million euros are realized¹¹⁹.

¹¹⁸Shevchenko L.S. Finansuvannia vyshchoi osvity: podolannia zahroz resursnoi zalezhnosti [Higher education financing: overcoming the threats of resource dependency] [Electronic resource] / L. S. Shevchenko. – Access mode: <http://www.rusnauka.com>

¹¹⁹Butska O.Iu. Dzherela finansuvannia vyshchych navchalnykh zakladiv [Sources of funding for higher education institutions] [Electronic resource] / O. Iu. Butska. – Access mode: <http://www.sworld.com.ua>

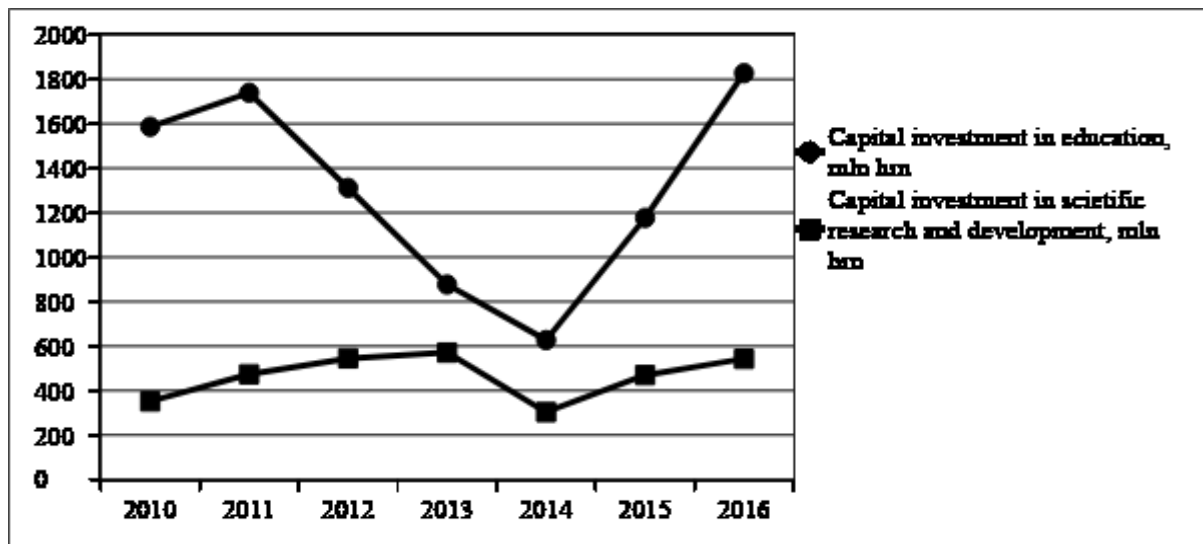


Fig. 1.13. Dynamics of capital investment in education and science in Ukraine (systematized by the authors based on¹²⁰)

The result of cooperation of national universities with potential employers and foreign higher education institutions is the significant improvement of the quality of educational services and the attraction of additional financial resources that greatly enhances the competitive potential of national universities.

Taking into account the world experience and modern trends of higher education financing, the main issue that needs to be solved, when developing models of higher education financing, is the accessibility and quality of higher education.

All the above considered allows making a conclusion about the necessity of applying the model of multi-channel financing of higher education, which, in addition to the legislatively defined sources of financing would include: the state registered financial debentures (educational vouchers); maintenance loan and endowment funds.

The results of the study summarized the factors in the development of the higher education system, which are shown in Fig. 1.14.

The solution of the considered problems requires policy design for the development of higher education of Ukraine, the definition of a long-term vision as a landmark for innovative transformations in the field of education. In developing the long-term vision and appropriate strategy, it is advisable to consider the following features:

at the country and regional levels it is necessary to: create and use a databank of social, economic and political indicators with the aim of forecasting trends in the development of the education sector in the specific region, Ukraine as a whole; develop a legal framework and regulatory support in the areas of development of the

¹²⁰Kapitalni investytsii za vydamy ekonomichnoi diialnosti [Capital investment by types of economic activity] [Electronic resource] / Ofitsiynyi sayt derzhavnoi sluzhby statystryky Ukrainy. – Access mode: <http://www.ukrstat.gov.ua>

higher education system on innovative principles; form effective financial mechanisms and support research and innovation activities of a university;

at the microlevel (universities level) it is required to: take into account the results of objective monitoring of the university performance in the preparation of the strategy for innovative development and in the implementation process; identify gap in the market of a university in educational and research sector; focus on improving the efficiency of a university management, including enhancing the efficiency of educational and scientific activities of students, teaching and research work of the faculty; attract foreign investment for the development of research and implementation of innovative work, improvement of facilities and resources of a university.

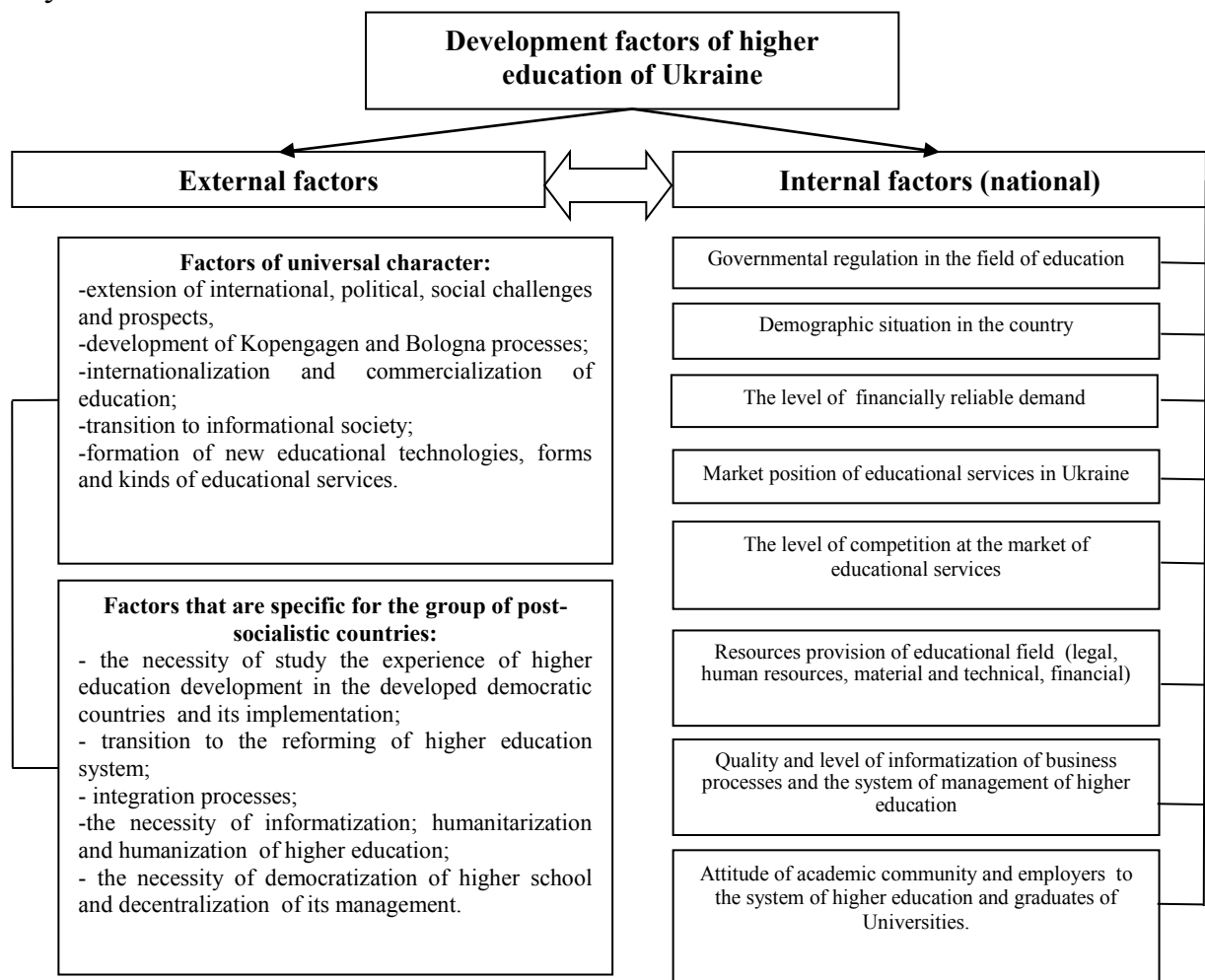


Fig 1.14. The factors of development of higher education in Ukraine (systematized by the authors based on^{113, 114})

In the modern context, when Ukraine recognized the priority of the formation of a post-industrial society, the characteristic feature of which is the creation of a new model of economy – the knowledge-driven economy, education becomes one of the key factors of economic growth and sustainable development of the state. According to the experts of the World Bank four main conditions of building the knowledge-

driven economy include education and science, that define the presence of an educated and skilled population capable of production, distribution and use of knowledge.

According to the analysis it was established that at the present stage the main economic factors of formation and development of higher education in Ukraine are: the level of economic stability, GDP (including per capita), the level of education financing as % of GDP, the investment level of the education sector, demographic processes, the level of inflation, income, expenses and savings of population.

On the basis of the study of peculiarities of financing higher education institutions in Ukraine and generalization of foreign experience it was offered the usage of a multi-channel financing model for higher education, which, in addition to the legislatively defined sources of funding, involves uses of such instruments as: the state nominal financial obligations, education loan and endowment funds.

In short term, at the strategic level of higher education management there is a need to develop a program of actions (a strategy), to create a "margin of power" to enter the global education market, utilizing all available factors of competitiveness, the potential of Ukrainian education and science, and to create new features that require changing the vector of development of the national system of higher education. It will ensure the dynamic development of the education sector, will stimulate the processes of commercialization of knowledge, will strengthen the market position of state higher education institutions, will increase their competitiveness, because only under these conditions education will be able to fulfill its mission to develop the human potential of the country.

1.11. Modern trends in the education economy development in the context of information revolution and globalization

The work presents the main trends in the education economy development in the context of globalization, which, in our view, characterizes certain bifurcation points that have already occurred or will occur in the nearest future. Some elements of institutional economic theory methodological apparatus are used in the work, such as transaction costs, institutional environment, bifurcation point, competition of standards^{121, 122}.

The traditional "old good" university, although we do not like it, becomes history, however, just like the economy of education in the second half of the XX century. A distinctive feature of this process, sometimes imperceptible to the eye in the short term, but continuing, is the decline in the role of traditional libraries, with

¹²¹Nord D. 1981. Structure and Change in Economic History, New York: W. W. Norton, pp. 228.

¹²²Nord D. 1990. Institutions, Institutional Change and Economic Performance, Cambridge University Press, pp. 152.