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E-mail: knutd@knutd.com.ua***THE ECONOMIC NATURE OF
EDUCATION PRODUCTION**

ABSTRACT. This article is dedicated to elaborating the scientific research of the economic nature of modern education production. There has been featured the theoretical approaches to investigating the education production and education product as the most important constituents of the objectives of modernising the Ukrainian education. There has been analysed the economic resources and the product of education activity.

Received: June, 2012*1st Revision:* September, 2012*Accepted:* October, 2012**JEL Classification:** I 23, P2**Keywords:** economic service, education product, education production, the economic resources of education production, investments in education.**Introduction**

Market relationships became to prevail today almost in all spheres of human activity. Practically everything is considered today as an article of trade or a service and every person – as their producer or consumer. That concerns the area of education as a package of paid educational services in full measure. Education is considered a practical real business aimed at meeting the needs of a customer – a student, his/her employer. The objective of higher educational establishments is to produce the education products, to sell them for a mass consumer. That is a necessary condition for economic growth of the state economy. Thus up to this time many issues of economic nature remain to be unsolved and they are actively being discussed in domestic and foreign literature.

The definition of the main directions, priorities, tasks and mechanisms of implementing the state policy as the condition of developing the innovative economics is the object of burning scientific discussions.

The objective of the research is to study the theoretical approaches to investigating education production and education products as the most significant constituents of the aims and contents of modernizing the Ukrainian education.

The main body. Since 2001 Ukraine started reporting the statistical indicators of the social and economic condition of the state according to the generally accepted in the international statistics system of national accounts. Since that time the basic indicators – gross domestic product and gross added value are estimated according to the types of economic activity. And there is a separate type among them – “education” that is worth the scientists’ and specialists’ attention. “Economic activity is the most important form of the conscious and purposeful labour activity of people in the process of which they mostly enter into active

relations with nature and economic relations and relationships among themselves in order to produce the economic goods in different spheres of social reproduction (direct manufacture, exchange, division, consumption etc.) as well as to form their personalities. Economic activity is the process, for this reason it has the aim (producing goods and personality), means (means of production) and the result (economic welfare in the form of useful for the society goods and services)” (Mochernyi, 2010). The representation of such a kind of activity as “education activity” makes possible to investigate the most important processes and phenomena of the educational activity of Ukraine and their economic analysis as well as to develop measures of modernizing the educational activity under modern conditions.

In our opinion, such an approach does not promote the recognition of economic potential of education and its significance as one of the main subsystems of economic system of society, as well as it does not permit to comprehend changes in educational activity under market conditions and its role in the world.

The result of people’s labour is a product. It can be in a material or non-material form. As it is mentioned in the economic encyclopaedia dictionary (Mochernyi, Larina, 2006), the products of labour are divided into material and non-material (services). And then, “a service is the special consumer value of the process of labour which is expressed in a useful effect that meets the needs of a person, of a staff and society” (Mochernyi, Larina, 2006). Under the commodity-money relations the economic form of the existence of labour products is an article of trade.

Today the majority of economists consider an educational product the article of trade of economic education as “the system of social and economic relationships among the state and non-state institutions (organizations and establishments of education area) and the majority of population on the occasion of tuition, education and training the educational productive force for appropriate fee” (Mochernyi, Larina, 2006). An educational product is the economic product produced in the sphere of spiritual and intellectual production (an intellectual product) or in the form of fulfilled works and services (Mochernyi, Larina, 2006).

The educational process includes not only the results of intellectual, mental, spiritual and creative activities that are embodied into discoveries, inventions, patents, scientific projects etc., but also the formation of personality, creating the “human capital” and the relevant competence of a specialist.

For our research the important aspect is the theoretical and methodological basis of such major notions in the educational activity as economic resources (means of production) and results. It is worth mentioning that starting from A. Smith (Smith, 2009) a lot of works of economists-classics are dedicated to the system of education. The theories of classics of economics concerning the essence and nature of education transformed later into a neoclassic theory, first of all in two conceptions – the conception of human capital and the conception of productive function of education. The works of scientists who study the human capital investigate the opportunities and prospects of education which form certain knowledge of a person, his/her abilities and skills. The more human capital will be in a certain society, the more productive will be its labour resources. The representatives of science who analyse the process of education from a position of a productive function state that education is studied as a production process as it is an expedient activity aimed at producing the product that meet needs. They model the production function of education, analyse the structure and the specific character of interrelations of resources and results etc. (Timoshenkov, 2005).

Different theories of studying the education activity from different points of view analyse the efficiency of education resources and the results of education process. An educational product is produced as the result of transforming the economic resources (factors of production). Usually in the economic theory the main economic factors are considered to

be land, capital and labour. According to its definition, the factor of production is a thing which can contribute to the success of production process.

Labour as an economic resource is mental and physical abilities of people. They are used in producing goods and services. First of all, labour in the education process includes the labour of teachers. The teacher of a higher educational establishment is a scientist, scholar and educator. At the same time he/she should also be not only a lecturer, pedagogue, but also the competent organizer of education process. A teacher is the central figure of education process and only he/she is able to comprehend the real educational state of educational process at the educational establishment and take the necessary measures for raising the efficiency of educational process.

The very process of education is the process of a certain influence of a teacher on a student, to be more precise that are certain actions with students. But today's time demands the pedagogical efforts concerning tuition not as "subject" – "object", but as "object" – "object". This special category of workers has a special preparation, appropriate competence, professional knowledge, qualification. It is worth mentioning that the peculiarity of an educational process is the high degree of teachers' autonomy in interaction with those students who study. The efficiency of educational activity depends upon this interaction, activeness, initiative and creativity of teachers and those who study, as well as upon their cooperation in achieving goals.

According to many scientists (Drahanchuk, 2011; Kozhukhar, 2005; Kremen, 2010), the economic resource "labour" should include the labour of those people who study as in the educational process the special role belongs to students because the effectiveness of the educational activity depends on their efforts. One can achieve the educational result only under the condition that the one who studies spends his/her labour (on lectures, practical classes, individual work etc.). As a result of the active cooperation among teachers and students the very educational product is produced in the process of manufacturing the educational product. Essentially a student becomes its co-maker. But the immediate contact of a teacher with a student remains a determinative point in the educational process.

Capital as an economic category is any resource produced to manufacture the economic goods and is used in the educational production of services. Capital is the constituent of economic resource which is conditionally divided into two groups: the material and non-material resources.

Representing the first group of economic resource "capital" (fixed and working) the material means are needed in order to provide the functioning of a higher educational establishment. They include buildings, computers, furniture, education equipment, libraries etc. They are necessary for the functioning of higher education establishments.

The issues of investments, their amounts, rates of growth and direction are practically always considered in the context of stimulating the economic development. The complications of evaluating the necessary amounts and efficiency of investments in education constitute the specific character. It is typical for the education activity that provides producing the educational services as a form of education product.

According to State Statistics Service of Ukraine, since 2004 the amounts of investments in education increased 2.6 times as much and as a result of the year 2011 they amounted to 2485.2 million VAH (The official web-site of State Statistics Service of Ukraine). The amounts of investment resources that were involved into the sphere of education went 32.7% up on the year 2010. However, in spite of the trends about improving the situation in this area the analysis of statistical data allows making conclusions about the existence of the range of problems concerning involving investments in the sphere of education in Ukraine.

A trend about decreasing the value of fixed assets of education in the aggregate value of fixed assets in Ukraine is observed during the last years, namely from 2004 till now (Figure 1). Besides, the above-mentioned fact takes place on the background of relatively stable growth of investments in the fixed capital and the slight fluctuation of the part of GDP which is created by the education in the aggregate GDP of Ukraine. In 2004 the part of the value of fixed assets of education in the joint value of fixed assets of Ukraine amounted to 4.3% and in 2010 it amounted to only 1.1% that means that during the last 8 years it decreased almost by 4 times.

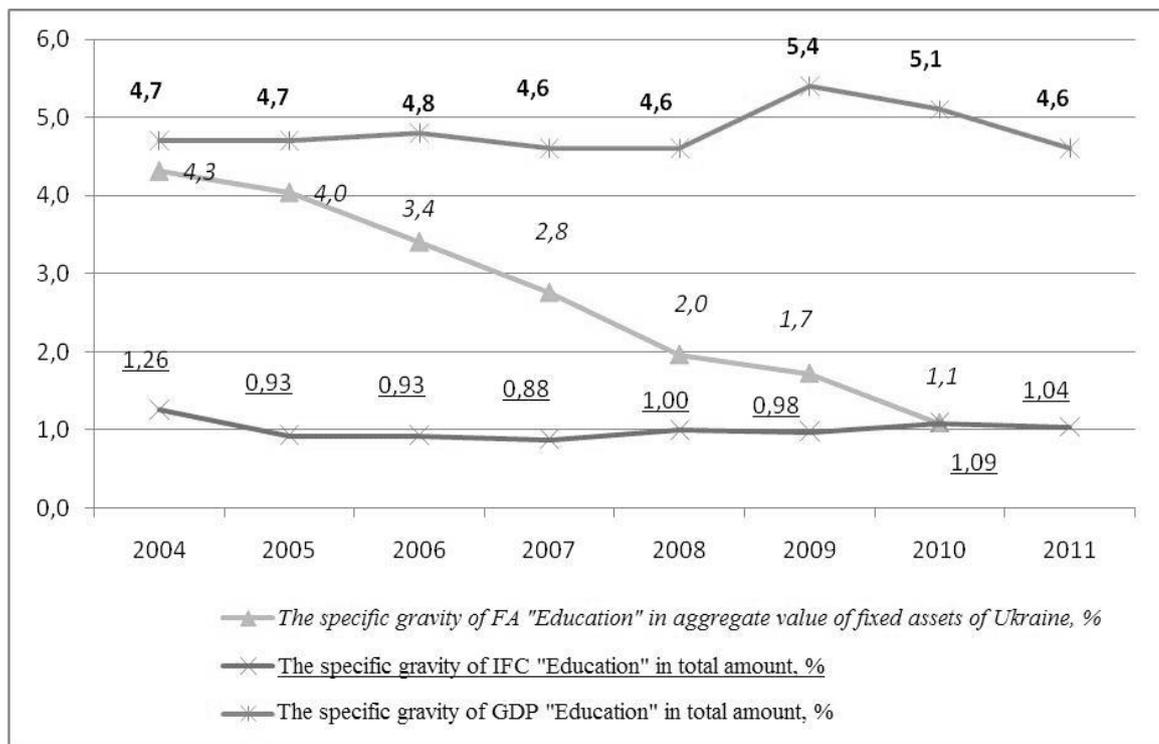


Figure 1. The Part of Gross Domestic Product (GDP), investments in fixed capital (IFC) and the value of fixed assets (FA) of education in total amount of GDP, IFC and FA of Ukraine, %.

Source: calculated according to the official web-site of State Statistical Service of Ukraine

Figure 1 shows the trends of changing the relative indicators. These indicators feature the investment activity in the education sphere of Ukraine and give cause to affirm about the low efficiency of spending the investment resources in this kind of Ukrainian economic activity. The low level of capitalising the educational institutions causes to develop and take urgent measures of state regulation. Such measures should be aimed at improving the situation in this sphere. First of all, it is important to focus on strengthening the state control over the investment activity of Ukrainian educational establishments in the sphere of target using the financial resources from the national budgets of different level. In this case one of the decisions can be elaborating and approving the development programmes for 3-5 years with pointing out the plans of construction, repairing, reconstruction, modernisation and other ways of improving the fixed assets, as well as the sources of getting the necessary investment resources.

At the same time it is expedient to make the inventory of fixed assets in educational sphere in order to check the correctness of applying the wear norms of fixed assets defined in the legislation of Ukraine.

Decreasing the part of value of fixed assets of education indicates about the existence of negative trends. They are caused by chronic lack of investment resources for the development of this sector of economics and probability of spending the investment resources. That is using investment money for other needs, first of all – for paying salaries.

The value of fixed assets of production and also the degree of their depreciation are important in education production as well as in other kinds of economic activity. According to State Statistical Service of Ukraine in 2010, the degree of depreciation of fixed assets of education in Ukraine amounted to 62.5%, of economy as a whole – 74.9%. At the end of 2010 in actual prices the primary value of capital assets amounted to 72.5 billion VAH or 1.1% of the total cost of fixed assets and the residual value – 27.2 billion VAH or 1.6% relevantly (The official web-site of State Statistical Service of Ukraine).

The contribution of education of Ukraine to GDP remains to be low and during the last years varies from 4.6 to 5.4 % (Figure 1). Besides, it is worth pointing out that the part of education to GDP increased at the period of economic and financial crisis when in Ukraine the amounts of production decreased almost in all kinds of economic activity. However, during the last time because of the accelerated rise of the rates of GDP growth in industry the gradual decrease of contribution of education to GDP of Ukraine is observed. During the years 2004-2008 the education part of GDP varied from 4.6 to 4.8%. During the period of financial and economic crisis (in 2009) it rose to 5.4% and during the last years (2010-2011) it decreased to 4.6% (The official web-site of State Statistical Service of Ukraine).

The non-material resources are the most important in education activity. These are education technologies (informational, distance etc.), scientific schools, the image of an establishment, social recognition, traditions etc.

The notion of “land” includes all the natural resources. They are applied in the production process. The constituents of land resource are used in education activity and do not differ essentially from other spheres of material production. In the market economy the land is the same mean of production as any other material factor of production. But in contrast with two types of primary production factors (for instance, the human factors), this factor is not connected with the activity of a person.

The usage of land for educational buildings, accommodation for teachers and students, stadiums, sport sites, transport infrastructure, recreation areas etc. serves for the development of human capital, social and individual welfare and it possesses its value.

The economic doctrines concerning land consider land not from the point of view of a speculator who values only money and profit. According to L.Mises, one of the most prominent thinker-economist of XX century, “land is an exhaustible source of human energy and human life”, and then, “land does not only bring fruits which nourish our bodies; first of all it produces moral and spiritual forces of civilization” (Mises, 2008). For this reason in many countries of the world the state legislatively gives to educational establishments certain privileges concerning using the land and provides certain social prestige. Unfortunately, there is no such a phenomenon in Ukraine.

Different opinions in scientific literature concerning this phenomenon are important for our analysis of the essence and peculiarities of produced educational products. Some authors consider the graduates to be an educational product (as an economic substance) (Mukimbekov, 2011), some others – that the product of functioning of the education system is an educational service (Zatepyakin, 2008) and so on. We share the opinions of those authors who distinguish the notions of educational result and educational product (Drahanchuk, 2011). The educational result reflects the fact of appropriation at the individual and personal, state, public levels of certain values. These values are created in the process of educational activity and are important for all consumers of the educational product. It is necessary to emphasize that any achievements and results should be considered in the light of personality,

the educational achievements, human capital as the aggregate education potential of society is determined by specific education acquirements of a person (Kremen, 2010).

Generalizing the interpretation of an educational product it is necessary to point out that multiple-aspect and different vectors of scientists' opinions are caused by the researches of economists of the very phenomenon of services including the educational ones. But up to this time the conceptual system of this sphere of economics has not been formed yet.

In our opinion, it is worth paying attention to the following structure of educational product mentioned in the work by the scientist L.Drahanchuk (Drahanchuk, 2011). It includes three types: an educational service, the services of means of sharing knowledge and an educational result.

The first type of educational product is an educational service. In spite of the considerable amount of publications about the problem of defining the essence of an educational service (Drahanchuk, 2011; Zatepyakin, 2008; Kozhukhar, 2005 etc.), the scientists have no the only point of view concerning this question till the present time. From our point of view the notion of "an educational service" is the activity (pedagogical, educational, scientific etc.) of the workers of education sphere that meets the needs of education subjects. It is worth pointing out that an educational service is produced with the live labour of teachers and demands fulfilling certain procedures, carrying out the certain process. But the educational result of this process depends on teachers as well as on students. The result of education activity can be considered as a useful effect created as a result of activity of educationalists.

Another type of educational product is the services of means of sharing knowledge. The very important points of educational process are transmitting knowledge, producing and choosing knowledge for specific specialties at a specific educational establishment. This function is one of the constituent of forming the contents of education, the quality of which depends on qualification of professors' and teachers' staff.

It is accepted to distinguish people's knowledge as "personal" or "inalienable" which can be separated or encoded in the form of articles, manuals, monographs. Thus it becomes "codified" or "ready knowledge". It can be bought, borrowed etc. "Personal (inalienable) knowledge" is much more profitable than the codified one. Inalienable, personal knowledge produces "new knowledge" and can provide intellectual and scientific and research inheritance. Bringing the economic effect the efficient education activity is possible only on the basis of inalienable knowledge. Such knowledge can be received only under the condition of personal participation in research work.

Codified knowledge can not be developing, it can be only temporarily used till it goes out of date. And knowledge, even the basic one, goes out of date today in 1-1.5 years (Gryshchenko, 2010). For this reason the renewal of scientific and methodological provision should be carried out constantly. The educational process which is built on "codified knowledge" changes into the constant work upon collecting, analysing, learning, mastering and memorizing the constantly changing material.

The means of sharing knowledge are being constantly produced and renewed in the process of education production by teachers for educational establishments. These are such means of sharing knowledge as monographs, manuals, scientific and methodical materials, articles and others. By means of them knowledge are being transmitted to individuals and they contribute to the process of education production. Such educational products are important for self-education.

The third type of an educational product is the competence acquired by a student. That means a new quality of a specialist. An education product does not coincide with the result of education production and is only the part of the product mastered by a student. This is the part

of acquired properties, the sum of knowledge, information, skills, abilities mastered by an individual. And they can be realized in the process of his/her professional activity.

The achievements and results of education production compose new educational qualities of an individual. They are expressed in his competence. Competence is the dynamic combination of knowledge, comprehension, skills, values and other personal qualities describing the results of tuition. That means competence is the acquired ability of a person in the efficient activity (Babin, 2011).

The labour market evaluates mental skills of aspirants – creativity, ability to analyze situation, systemacy of thinking, ability in self-training; personal qualities (stress tolerance, flexibility, initiative, responsibility); the level of practical specialty skills and the level of basic communicative skills (communication, negotiating, solving the conflicts, team work, work with clients etc.).

According to estimations of employers and graduates, the best evidence of efficiency of university work is the practical value and the relevance of educational services with the needs of labour market (Gryshchenko, 2010).

In employers' opinion, the most important qualities of a worker are practical and professional skills, abilities to solve problem situations and skills to work with clients (Gryshchenko, 2010). A lot of employers consider that the graduates of higher educational establishments do not have these skills sufficiently. That means there is a gap between the skills and knowledge acquired by a graduate and those skills and knowledge necessary for a worker of an organization. For this reason, as a rule, while hiring a specialist, the employer prepares him/her for several years by investing in him/her time and money. The availability of a diploma (even of the most prestigious university) does not guarantee the admission to a team.

Conclusions

Investigating the problems of education economics is the important part of research programmes of many scientists all over the world. The definition of the theoretical approaches to investigating an educational service as the most important constituent of an educational product contributes to discovering the nature of education activity as material manufacture using the economic resources (land, capital and labour) of education production.

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