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#### FINANCING OF EDUCATION AND SCIENCE IS AT REGIONAL LEVEL

The article analyzes the problems of financing of education and science as component elements of human capital. It is well-proven that financing of education and science at regional level is ineffective and insufficient. It is suggested to activate financing of education and science due to the resources of enterprises and people.

**Key words:** human capital, education, science, public educational policy, budgetary financing, financial resources of enterprises.

**The problem statement.** Nowadays, the competitive benefits in Ukraine are not limited by such factors as extremely advantageous geopolitical location and natural resources. Thus, it is evident that one should consider other factors that determine the competitive position of the country, namely its intellectual capital (i.e. the innovative knowledge which can bring a profit) and the human capital (the combination of knowledge, skills, creativity and the capacity to meet the market). It should be noted that the financing of education and science, based on social standards are among the prerequisites for the human capital reproduction. Moreover, it is conspicuous that «the countries that counted on the education and science [4, p. 5], have become «the world leaders»» and active participants of global economy. However, the financing of education and science in Ukraine is characterized by the lack of both legal and financial resources.

**Analysis of the latest researches and publications.** The recent researches which are connected with the formation of a new financial model occupy an important place in the process of the reformation of the national educational policy. The aim of the model lies in developing of education and science in Ukraine. Thus, the development of the national conception of education modernization for sustainable development is of great importance. The theoretical and practical aspects of the aforementioned problem are covered in the works of the following Ukrainian scientists: V. Antonyuk, T. Bogolib, O. Zaharova, E. Libanova, L. Safonova et alias.

At the same time, there exists an urgent need for further research. The research implies the formation of concepts and corresponding methodology concerning price formation in the education industry. Such terms as credit education system, licensing requirements and integration into the European educational space are taken into consideration.

**The issues of current importance.** The existent researches confirm the idea that the sufficient financial support of education and science abroad produce a positive impact on the service quality in the industry, on the innovative processes in particular as well as on the state of the national economy in general. Thus, the toolset development of financial management of education and

science should take place by means of improving the financial mechanism of the reformation in accordance with the world trends.

**The aim** of the investigation is to study the financing of education and science at the regional level and to ground the directions of its possible development.

**The body of the investigation.** Financing of the education and science institutions is fulfilled in accordance with the Budget Code of Ukraine, such laws as «On Education», «On General Secondary Education», «On Preschool Education», «On out-of school education», «On school education», «On Vocational Education», «On Higher Education», «On Scientific and Scientific Technology activities». The laws on the State Budget of Ukraine for the current year and regulations of the Ministry of Ukraine are also taken into consideration.

According to normative basis of budget financing in education and science, the vocational education, the higher educational institutions, the graduate education, the majority of material equipment of the educational institutions and all of the researches and developments in the field of education are financed at the expense of the government budget at the present moment.

In their turn, the local budgets of the Autonomous Republic of Crimea, regions, Kyiv and Sevastopol fulfill the financing of the majority of expenditures for pre-school, secondary school, comprehensive school as well as for extracurricular activities, accounting for over 60% of the overall education spending.

The research of financing tendencies in the education and science of Rivne region shows that the stable work of social development of the region and the development of economic complex are provided at the regional level.

In particular, the strategy of economic and social development of the region till 2015 is based on the statutes set out in the National Regional Development Strategy. The strategy for the period up to 2015 comprises the problem solutions concerning the modernization of the region's economic sector. It also ensures the competitiveness of its products in the foreign and domestic markets. The aforementioned strategy is aimed at providing an integrated use and conservation of natural raw materials; at compliance with environmental requirements, improvement of the efficiency of transit and the tourism potential of the region as well as the employment of the population. A significant increase of the household income and the quality of services in the social and humanitarian fields involve bringing them closer to European standards.

According to this document, the priority directions of the industry development for the period till 2015 are the following: completion of the transition to the new content, structure and the 12-year term of education, the implementation of the State Standards for basic and secondary education and enhancement of the access to the high-quality education, the implementation of the profile, external studies and distance learning, the introduction of personal loans for higher education, the implementation of measures for joining the higher educational institutions of the Bologna Process, etc.

It should be noted that the current education system in the Rivne region comprises thirty two higher educational institutions of different accreditation levels, including 4 universities, namely National University of Water Management and Nature Resources, The National University of Ostroh Academy,

Rivne State Humanitarian University, International Economics and Humanities University named after Stepan Demianchuk. Twenty-three vocational schools, including seven senior vocational schools, 743 secondary schools (93 of which are of a new type), 22 boarding schools and 249 kindergartens are situated in the region.

According to the data of Department of Education and Science of the Rivne Regional State Administration, 2012 budget expenditures were approved in the amount of 293.5 million, taking the changes into account. The budget expenditures involve the General fund in the amount of 270.9 million, the Special fund - 22.6 million, including budget development in the amount of 11.2 million, correspondingly.

At the beginning of 2012 the total amount of refined planned expenditures added to the approved ones increased by 3.1 million, the general fund being decreased by 2.6 million, while special fund being increased by 5.7 million at the same time.

2012 general fund expenditures amounted to 265.2 million hrivnas, i.e. 98% from the budget plan. The wages were fully paid to employees in accordance with the official duties. The cases of wages arrears were not fixed.

The costs for the maintenance of general, specialized boarding schools and vocational schools comprising 11507 pupils (2851 are from the boarding schools) equal to 88% or 240.8 million hrivnas from the total expenditures. The food cost for a pupil per day amounted to 22.57 hrivnas (compared to 28.00 hrivnas in 2010)

5.2 million hrivnas (52% from the total amount of capital costs) went to 2012 equipment purchase, namely to the purchase of the equipment and renovation of the classrooms, workshops, the bath and laundry buildings, canteens, etc.

93.6% of the general fund financing costs were allocated on the protected expenditures. To sum up, the total expenditure share of the specific weight of gross pay made up 62.9% (178.4 million), articles of food 5.9% (16.8 million.), public services 8.7% (24.8 million.), capital expenditures 3.5% (9.9 million).

Table 1

**Education and science expenditures 2012-2013**

| Expenditure clauses  | 2010  | 2011  | 2012  | Growth %<br>2012 till 2010 | Growth %<br>2012 till 2011 |
|--|-------|-------|-------|----------------------------|----------------------------|
| Total amount of expenditures taken from the general budget | 134,3 | 214,0 | 273,9 | Increased twice            | 18,7                       |
| Gross pay  | 84,8  | 136,5 | 176,6 | Increased twice            | 20,6                       |
| Articles of food   | 13,7  | 15,9  | 16,7  | 21,8                       | 3,1                        |
| Public services  | 8,4   | 18,8  | 24,7  | Increased thrice           | 9,2                        |
| Capital expenditures                                       | 13,9  | 11,4  | 8,7   | -                          | -                          |
| Other expenditures   | 13,5  | 31,4  | 47,2  | Increased twice            | 50,3                       |

Generally speaking, the number of appropriations for expenditures has increased compared to 2010-2011. The largest lift took place in gross pay (91.8

million, 2 times) and public services - 16.3 million, or 3 times. The increase of expenditures was due to introduction of vocational institutions to the management network.

At the same time, the reduction of the capital expenditures took place.

The volume of special fund revenues equaled to 11.4 million; 1.0 million came from paid services, 4.0 million from economic activity, 5.4 million from charity. Extra revenues increased by 9.6 million compared with the 2010 rate (1.8 million.). The latter can be explained by the considerable incomes from economic activity and paid services of vocational schools.

Treasury Account balance in a special fund at the balance sheet date amounted to 2.6 million. Balance payable on the balance sheet date amounted to 5.4 million, including 2.0 million from the general fund, 2.9 million from the special fund, half a million from non-budgetary transactions. 3.2 million from the total amount of account payable failed to be paid on time due to the absence of payments from the State Treasury. Balance receivable at the reporting date amounted to half a million, including: 14.3 thousand from the general fund, 69.3 thousand from special fund and 451 thousand from non-budgetary transactions.

The second table shows the performance indicators of regional sector programs and activities in Rivne region.

Thus, the considerable part of the overall number of programs was not financed in a proper way. It was influenced by the lack of financial resources and the lack of their effective use.

It should be mentioned that the type of financing of educational institutions depends largely on the type of their submission. It can be realized both at the governmental and local levels of financing.

At the same time, it is necessary to consider the «economically rational concentration of resources in the government budget for the training of professionals in the important industries. The important industries are those which play an important part accelerating scientific and technical progress in our country» while establishing a division between the different types of education financing.

The financing of education from the state budget has been and remains an important regulator of reproduction rates and proportions of human capital.

Table 2  
**Financing of industry programs and activities in Rivne region in 2012**

| Name of the program  | Plan, thousands, UAH | Cash expenditures, thousands, UAH | Execution, % |
|--|----------------------|-----------------------------------|--------------|
| Students' competitions and tournaments                                       | 346                  | 315,8                             | 91           |
| «The teacher of the year», «Form master», etc. competitions                  | 38,8                 | 29,5                              | 76           |
| Statistics, information-analytical compilations, statistical reporting forms | 10                   | 1,8                               | 18           |
| Expenses for documents' production   | 61,3                 | 61,2                              | 100          |

|  |             |        |     |
|--|-------------|--------|-----|
| Organization and participation in seminars, workshops, conferences, meetings, etc.   | 134,3       | 96,1   | 72  |
| Professional skills' competitions in vocational institutions   | 27,5        | 24,1   | 88  |
| Chairman of Administration and the head of the regional council Awards   | 97,9        | 97,7   | 99  |
|  | 715,8       | 626,2  | 87  |
| The introduction of ICT Program in schools til 2015  | 213         | 171,2  | 80  |
| 2011-2014 Program for talented youth   | 344,1       | 105,7  | 31  |
| Regional rest and rehabilitation program for children in 2009-2013   | 16,5        | 15,2   | 92  |
| Regional social program for adult education for the period up to 2014  | 137,8       | 94,5   | 69  |
| 2011-2017 Preschool education program  | 94          | 61,8   | 66  |
| Support program for young people   | 1<br>138,30 | 1115   | 98  |
| The regional target program of development of vocational education in 2011-2015  | 95          | 44,5   | 47  |
|  | 2038,7      | 1607,9 | 79  |
| Subsidy from the regional budget to local budgets for implementation of the program providing general, vocational and higher educational institutions with modern technical facilities for the natural and exact sciences and technology | 198         | 198    | 100 |
| Including Rivne  | 159,5       | 159,5  | 100 |
| Ostroh district  | 38,5        | 38,5   | 100 |

From our point of view, there is a demand of the changes in the mechanism, the demand of the gradual transition from the educational institutions' financing in general to the financing of an individual in particular, from the government pattern of funding to the mixed one, from the free education to the paid one in a market economy conditions.

The development of decentralized education financing (financing at the expense of the enterprises; for-profit, planned profit from economic accounting) is an objective requirement for the improvement of financing and reproduction of human capital.

Hence, National strategy of the development of education for the following decade comprises the following objectives:

The National education development strategy was adopted in order to provide an access to the high standard, competitive education for all the citizens of Ukraine in accordance with the requirements of innovative sustainable development of society, economy. The strategy should ensure personal development according to the persons' individual inclinations, abilities on the basis of lifelong learning» [5] The aim of the strategy lies in identifying the areas of national education policy.

The key lines of national education policy are a financial and material and technical support for the educational sector. These factors are aimed at creation of the preconditions for providing citizens with high-quality education

according to modern needs of each individual and the needs of the country's track of innovative development, namely:

1) the funding of the educational sector as a priority direction of budget expenditures at all levels, the shift from the support principle to formation of own budgets based on the contingent quantity and the standard cost of education per student, establishing the volume of funding education according to law guaranteed standards, gradual increase of the funding to the average index of European countries;

2) multi-channel financing of education through the introduction of the system of subsidies, grants, loans, their combination and differentiation according to different categories of payee (according to their social status, health status, readiness of working off after graduation, etc.);

3) development and implementation of differentiated financing standards for educational institutions of all subsystems of education counting upon a student, a child, a pupil;

4) development of standards of paid educational services to various parts of education;

5) an assignment increase for research and experimental activities in education, funding research and development in higher education to a level not less than 10 percent of the total appropriation for their maintenance, improvement of the social status of pedagogical staff ;

6) the development of mechanisms in order to stimulate and encourage businesses, employers, individuals and juristic person to participate in the development of the education system; strengthening the material and technical base of educational institutions (preferential tax treatment, deferral in case of assignment of financial, material and technical assets for the development of education or a particular school, etc.);

7) the development and implementation of effective educational practice of administrative and financial management, saving on costs , energy-saving technologies [3, 5].

**Conclusions and recommendations.** Human capital is an important factor in the achievement of different economic and social objectives. The reproduction of human capital implies education and health care financing at a sufficient level and the effective use of financial resources of key institutions.

Being a key element of human capital the National education system should be financed not only through the government funding but also through the various resources of businesses and households.

The Ukrainian science is in urgent need of promoting the technopolises' activity, establishing different scientific and educational associations, (including research laboratories with advanced production). The aim of such changes lies in minimizing the process of «invention-introduction». It is also important to develop a strong connection between science and innovations as well as limit the funding of «science for science's sake» sort.

It is also necessary to develop a mechanism for optimizing the volume and structure of financial resources at the regional level. The mechanism implies an improved assessment of the regions' economic potential and the results of their relative economic activities. The calculations take into account the



economically active population. This approach will eliminate egalitarianism, encourage a more accurate assessment of the economic potential of regions and implement equitable distribution of intergovernmental transfers in the process of the reproduction of human capital. The enumerated approaches open lots of perspective for further research.

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#### **ФІНАНСУВАННЯ ОСВІТИ І НАУКИ НА РЕГІОНАЛЬНОМУ РІВНІ**

##### **Резюме**

У статті висвітлюються проблеми фінансування освіти і науки як складових елементів людського капіталу. Доведено, що фінансування освіти і науки на регіональному рівні є неефективним та недостатнім. Запропоновано активізувати фінансування освіти і науки за рахунок ресурсів суб'єктів господарювання та домогосподарств.

**Ключові слова:** людський капітал, освіта, наука, державна освітня політика, бюджетне

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## **ФИНАНСИРОВАНИЕ ОБРАЗОВАНИЯ И НАУКИ НА РЕГИОНАЛЬНОМ УРОВНЕ**

### **Резюме**

В статье исследованы проблемы финансирования образования и науки как составных элементов человеческого капитала. Доказано, что финансирование образования и науки на региональном уровне является неэффективным и недостаточным. Предложено активизировать финансирование образования и науки за счет ресурсов предприятий и домохозяйств.

**Ключевые слова:** человеческий капитал, образование, наука, государственная образовательная политика, бюджетное финансирование, финансовые ресурсы предприятий.