

MUTUAL DETERMINATION OF KNOWLEDGE AND ECONOMIC DEVELOPMENT

MEĐUSOBNA USLOVLJENOST ZNANJA I EKONOMSKOG RAZVOJA

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Abstract: Today exists in the world general understanding that education in the conditions of scientific and technical progress becomes direct power of society and decisive constituent of economic and social development. One of the most important characteristics of modern time education is acknowledgement of constantly increasing mutual dependence between knowledge and economic development.

INTRODUCTION

Various multitude of theoretical and empirical research showed that positive correlation exists between the realized revenue and adequate level of education. These facts are determined and hold true for the groups of individuals with terminated corresponding level of education as well as for individual countries as a whole.

That kind of casual interdependence of revenue and education, if observed through the history of economic thought development, was expressed in the scope of complex contribution of human factor (human capital) in realization of the aims of economic and social development.

1. MODERN ECONOMISTS ABOUT KNOWLEDGE

In the theory of education, from economic standpoint, knowledge is also very important, and they, in their interaction with technical progress and human capital contribute to the entire analysis and understanding of the role of so called "residue" in the process of economic development.

The broadest approach to knowledge has F. Machup². Production of knowledge is mutual gradient of interaction of technical progress, human factor and education in the process of

¹ *Economic and trade schools of Novi Pazar*

² F. Machup in his work: "The Production and Distribution of Knowledge in the United States", Princeton 1962., page 21. differentiates five types of knowledge: 1) Practical knowledge useful for the person who possesses it for decision making, and action, and can be divided according to activities into: professional knowledge, business knowledge, occupational knowledge, political knowledge, knowledge in household and other types of practical knowledge;

economic development. Judging by broadness of approach toward the role of knowledge in the process of economic development K.E. Boulding³ does not fall behind, who in the article printed in “The Economics of Knowledge and Knowledge of Economics” says that the acknowledgement about the fact that development, even economic one, in its essence is the process of knowledge, slowly penetrated the thinking of economists. It is because the obsession by mechanical models still exist, by capital coefficients and even by input – output tables on the account of disregarding of research of the process of learning, which is the realistic key for understanding of development.

It is true, of course, that only “the human resources school” of Shultz and Haribson have put the right emphasis on education as the main result of development process. But, even there can happen that little enough attention has been paid to the problem of learning as a whole, outside and inside the institutions of formal education, and the role of the system of prices has been essentially neglected.

Ernest Bloch, a marxistic philosopher, expresses his opinion about the interaction between knowledge and education in the process of economic development. He give to that interaction the dialectic dimension and says: “Yet, knowledge, just because of that endless change of view of the world, at each new step, does not stay at this pedagogic experience or the experience which refer only to education of individuum. Education, in the meantime, has to be understood also in the objective “organizing and subjective – upbringing sense, because with the new step of the subject appears at the same time the new level or step of the object and vice versa.”⁴

Beside global acknowledgement about interaction of education and knowledge in the process of economy development, there are different levels and steps of shading concerning the relation of their complementary characteristic and substitution, when speaking about creation of new knowledge (new scientific information, inventions) which create output of research activity in the broader sense of word.

Research of this compound process of the new knowledge generating in its essential meaning is seen in the compound process of usage of already existing social fund of knowledge (“old” knowledge) and its transformation into “new knowledge” i.e. new information (know – how).⁵

T.W. Shultz⁶ speaks about two kinds of new information such as:

- Those which are transformed into new types of skillfulness (knowledge), which, when once accepted, make the types of human capital and
- Those which are transformed into new material, which, when realized, make new typed of material capital (“nonhuman – capital”).

2) intellectual knowledge for cultural prosperity and scientific improvement; 3) knowledge for leisure; 4) spiritual knowledge; 5) knowledge outside the interests of one individual, acquired, random and preserved without special target.

³ Article of K.E. Bulding: “Economics of knowledge and knowledge of economics”, published in *American Economic Review*, vol. 56 no: 2/1966 page 1-13.

⁴ Ernest Bloch> *Tubingenski – introduction in philosophy*, Nolit, Beograd, 1966. page 75

⁵ Kenet J. Arrow speaks about “knowledge pools” (fund of knowledge). He thinks about the volume of information which availability to society is much greater that availability to any of its members or economic agent independently. See K.J. Arrow: *Comments in R. Nelson, The Rate and Direction of Inventive Activity*. Princeton University Press 196.

⁶ Theodore W. Shultz: cited on page 9

F. Machup describes that process as “improvement of knowledge from the level of rank of exogenous to endogenous variable which depend on input”.⁷

W. Nordhaus⁸ thinks that for that process of the key importance is the creation of adequate patent system which shall give the stimulus and encouragement for research and perceive the availability of resources intended for research, inspect the discrepancies between some branches of industry and the state of knowledge spreading.

By that, as he says, “internationalization of external economics of knowledge” will be possible. In other words, he points out the creation of positive social frame (patent system which works stimulative) in order to include the enterprise in the process of research which always carries the high level of risk. Risk itself makes one of the key categories in the economic theory of research activity.

Kenet Arrow says, according to the definition of information itself, that “invention must be the risk process in which the output (acquired information) never can be perfectly anticipated from the input”.⁹

Why is knowledge important ?

At the end of estimation of complex phenomenon of human resources capital it should be repeated once more the characteristic importance for the theory of economic education.

/1/ For the start of studying of human resources capital it is taken the year 1960. when T.W. Shultz gave economic concepts of this compound phenomenon;

/2/ Almost until these days there is not a field of economic science in which it is not represented the determined segment of human resources capital research;

/3/ M.J. Bowman speaks about the “revolution of investments in human factor in the economic thought”. (so called “The Human Investment Revolution in Economic Thought”).¹⁰

/4/ That revolution consist of the fact that expenditures for health care, education and skilled advanced training at the working place are started to be treated as investment into the fundamental mover of the production process – a human being. The essence of this new approach or better to say standing point of obligatory investments into human factor (“human capital”) is that people spend on themselves not only for the sake of temporary enjoyment but for the purpose of expected income in the future from such investments as well as numerous factors which can not be expressed through money. It is the core or foundation of human capital and S. Freud calls it the core or cernel in the program of research of human capital (so called “hard core”).

⁷ F. Machup, cited on page 5.

⁸ W. Nordhaus, cited on page 88.

⁹ Kenet J. Arrow: “Economic Welfare and the Allocation of Resources for Invention”, Page 149.

¹⁰ According to M. Blaug: “The Empirical Status of Human Capital Theory”; A. Slightly Jauniced Survey, in the Journal of Econ, 3/1976, page 829.

/5/ Quantity of research in the field of human capital is not often followed by taking out the quantitative conclusions relevant for leading the economic policy in this field. It is the reason that it is sometimes emphasized that research in the field of human capital starts to be "degenerated".

/6/ In the original concept of human capital formed by Shultz, Becker and Mincer, program of human capital research carries the characteristic of "methodological individualism" starting from the fact that all social phenomena should be taken out from their basis in the individual behavior. According to the standing point of this authors the investments into human factor as the matter of individuals who tend to their own interests.

/7/ Up to 1960-ties economists considered the non-obligatory types of education as the demand for consumption of goods. They also thought that this acquiring of the function of "taste" of individuals lies in the choice of schooling, level of family income and the choice of the "price" of scholarship expressed through the urge for education from the estimation of expenses and usefulness which are connected to the training in education after the obligatory schooling.

In the scope of expenses it is good to take into consideration direct and indirect expenses. Important item of expenditures make the expenses of missed income during the period of schooling.

On the other side it has to take into consideration the variations in income which go together with some acquired levels of education. On the basis of comparation of consumption and usefulness decision is issued about schooling which, from the economic point of view represents the justified investment of the individual.

/8/ Research in the field of human capital which refer to component of education brought the new social criteria of investment which reads: resources has to be allocated in such manner to create levels of education and years of schooling in order to harmonize marginal "social" degrees of investment justified in education and fulfillment of another additional requirement which says that in such a way harmonized levels of justifiability or sustainability cannot be lower than the rate of alternative private investments.

/9/ Together with the research of efficiency of regular state schooling in the scope of theory of human capital, parallely flew the research about economic efficiency of advanced education at work and in individual types of permanent education. In the modern conditions this research are connected to the phenomenon of mobility of human factor.

2. PROBLEM OF KNOWLEDGE OBSOLETENESS

When confronted, the continual education and development of touristic complex inevitably create many problems which are at the same time chronic as well as acute. They are chronic because they last extremely long and they are acute because they ask for urgent solving. Yet, I am of the opinion that the following three problems are the most interesting:

b) Problem of constant obsolescence of knowledge, calculation of the speed or tempo of that obsolescence, and calculating of the quantity of used time for studying as well as the content of proposed continual education. Obsolescence covers the entire field of knowledge of

personnel. But, according to appearance it can have the following types from the point of view of the specific development of touristic complex:

- Advanced education obsolescence which refer to knowledge and can be calculated according to formula:

$$S_z = \left(\frac{S_{nz}}{M_{nz}} \right) \cdot 100 \quad \text{where is}$$

S_z – advanced obsolescence of knowledge of touristic complex personnel according to units or enterprises

S_{nz} – Real level of personnel knowledge

M_{nz} – Possible level of knowledge from the point of view of new development paths where continual education means *conditio sine qua non*.

- Technological obsolescence which denotes the aspect of personnel knowledge in relation to new technological knowledge are almost everyday and is calculated according to formula:

$$T_z = \left(1 - \frac{S_{utz}}{N_{utz}} \right) \cdot 100 \quad \text{where is}$$

T_z – technological obsolescence

S_{utz} – Modern level of technological knowledge

N_{utz} – New level of technological knowledge which are known in touristic complex.

- Obsolescence of knowledge at doing concrete jobs and tasks in tourism which is only the other expression for disharmony of level and needed level of education and qualification level and calculation is done according to the following formula:

$$S_{zp} = \left(1 - \frac{S_{nzp}}{P_{nzp}} \right) \cdot 100 \quad \text{where is}$$

S_{zp} – obsolescence of the knowledge of individual person

S_{nzp} – Present level of personal knowledge for doing the determined jobs and occupation tasks

P_{nzp} – Needed level of personal knowledge

b) Second problem refers to the parallel growth of general level of skilled advanced education and degree and dynamics of touristic complex development. Here it is specially ment on the university education. Concerning that, it is also actualized the question of socialization because “the thought begins to prevail that student have to acquire the fundamental overall – theoretical – advanced skilled basis of their science, to enable them selves for selfeducation and quick harmonization and adaptation to new need which the development will inevitably place

before them.”¹¹ “Crisis of University” also has its impact on the touristic complex and this oasis has the world wide character.

c) Despite the battle for acquiring as greater as possible motivation of individuals for continual education, it must be counted with extremely expressed urge of individual to succeed and get promoted, which is the realistic danger from technocratism, and that, according to Laurence Peter and Raymond Hill, the individual can overpass its competence and its possibilities. In order to avoid independent self and individual learning it must be limited by the following factors:

- At the beginning it must be clearly known and clear what we want to acquire
- It is continually obvious what kind of knowledge one has to reach
- Great enough persistancy in learning
- Created system of learning
- Great interest and internal need to learn concrete items
- Excellent mentor, because without the mentor nothing would be acquired
- Behavior toward books, attitude to published sources of knowledge, extraction of knowledge from books
- Selfdiscipline and working habits
- Coping with new situations and intuition
- Ability of perception, understanding, listening to others, sense for team work, good relations with associates

Problem of continual education, of course, from the point of view of development of touristic complex, lies essentially in the system of education and upbringing. Beside the majority of taken measures, it has said that, when we speak about touristic complex, very oldfashioned programs prevail, as well as timely methods and organization of labour and the education for adaptation dominates. To our regret, the past with the elements of current times prevail but without serious view to the question and problems which expect us in the future. In these scientific – educational disciplines in which the contents are predominantly aimed toward the past their studying is predominantly in the function of explanation and solving of “burning” problems but with the small amount of future preception.

Let us mention that managing staff plays not a small part in solving the problems of continual education in the function of development of touristic complex. But, as it happens that according to some indication only one day yearly for their additional education than it is clear what kind of barriers must be crushed down in order to enable continual education acquire “the right of voting” in the system of education not only to touristic complex by even broader.

Nevertheless, it must be said that in the touristic complex participate the scientific resources if different fields of knowledge and profile which are of different education level. From that reason the problem of continual education become heterogenous and represent, per se, the complex question. The reason for that are the following:

- Continual education as the important aspect of economy and social development is not enough institutionalized and lifted to the level of standard activities of education.

¹¹ Dr. Laurence J. Peter and Raymond Hill – “The Peter Principle”, London, 1969.co-called “Peter principle” – reads: each employed person asks to reach the level of incompetence. Of course, we do not speak here literally about everyone but as a phenomena this appearance is massive.

- Occasional and temporary aspects in realization of tasks of education in enterprises is not the opportunity of the youth for continual education; it must be harmonized with the objective development of enterprises and requirements for qualitative touristic offer.

- Schooling in our domestic education system has not been directed toward objective tendencies of continual education although among the young exists positive attitude toward this kind of education.

At the end and finally, continual education can become actually existing and enter the touristic complex as the practice that:

a) We have to accept knowledge as productive factor with its mark and we have to form the economy of knowledge

b) Parallely to the theory of working value we have to develop the theory value of knowledge

c) We have to accept the expenditures of development as a new concept beside the expenses of production, because this new concept is corresponding to the modern results of scientific – technical progress,¹²

d) We have to acknowledge the amortization and depreciation of knowledge not only of fixed assets, so according and persuant to that we have to find financial means for investment into knowledge or into continual education.

e) We have to stop the underevaluation of education, underevaluation of knowledge and human resources because it can cause further detrimental influence to tourism.

INSTEAD OF CONSLUSION

In this century special importance in tourism will have those resources to which managing and creative role is dedicated. In the case that current development of the trend of tourism continues which is supported and caused by informatics and other modern technologies further great changes could be expected in the field of free time usage and the “industry” of holiday making, rest and leasure. Complications could be solved and avoided only by the expert and educated potential of human resources and skilled staff which is directly or indirectly included in the touristic flows.

But, in order to make the resources acquire such capabilities for avoiding of complications which catch upon resort tourism it is interitable that we constantly strenghten educational processes and education of touristic staff. Because of that a completely new concept of schooling and educating of touristic staff is needed and inevitable who will, beside the basic knowledge, place the special emphasis on the importance of a human being in their educational programs and by that place the emphasis of staff in tourism. Only in such a way it is possible to make a concept of tourism for

¹² This theory is precisely worked out by Radmila Stojanovic Ph.D. in the introductory written work for the scientific discussion: “New approach to the factors of economic development”, MC OSK Belgrade 1988.

the sake of a man and not the opposite like is the case today to make the concept of a man for the purpose of tourism.

Revolutionary changes which carries with itself the third technological revolution covered also the complex and sector of tourism. Personnel component is the basic factor that precedes every development and all the changes. What kind of personnel or staff in tourism are necessary today in this actual millenium ? Personnel which already is working or are preparing for work in some of these fields of tourism are forced to innovate and upgrade their competition of knowledge and ideas at the touristic market. It happens not only in the field of reception tourists but also in the discovering the new types of life which tourists expect during their stay at some determined touristic destination.

REFERENCE

1. Bakić, O., Marketing u turizmu, Ekonomski fakultet, Beograd 2003.
2. Cerović, C., Hotelski menadžment, Fakultet za turistički i hotelski menadžment Opatija, 2003.
3. Galbraith K., "Economic Development", Oxford University Press, Berkley., 1971.
4. Jafari, J., Encyclopedia of Tourism, Toutledge, 2009.
5. Joseph S. "The Theory of Economic Development", Oxford University Press, Berkley., 1974.
6. Lundberg, C., Stavenga, M., Krishnamoorthy, M., Tourism Economics, J.Wiley – Sons, Inc., New York, 2005.
7. Peter D., "Post capitalist society", New York., 1993.
8. Schultz., "Investing in people", University of California, Los Angeles, 1981.
9. Stefanovic V. , "Economic in tourism", Faculty of sciences and Mathematics, University of Nis, 2003.
10. Stefanović, V., Azemović. N., Nacionalna ekonomija, PMF-Niš, odsek za Geografiju, Niš, 2012.
11. Vujić, V., Menadžment ljudskog kapitala, Sveučilište u Rijeci – Fakultet za turistički i hotelski menadžment Opatija, 2004.
12. Vukonić, B., Tourism in the Whirlwind of War, Golden Marketing, Zagreb, 2007.