

# MAIN ASPECTS CONCERNING INTELLECTUAL SERVICES PRODUCTIVITY WITH FOCUS TO EDUCATION

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*Part of a larger research, this paper aims to point out several key elements of the productivity in the field of services, with application to the intellect-intensive ones: the main concern is for educational services.*

*Methodologically, the paper starts with the framing in the context of the knowledge based economy and its requirements concerning scientific approach on productivity. Customizations are made to educational services, followed by certain extensions of the issues discussed and synthetic correlations.*

*Conclusive results underline the intellectual core of most productive efforts of human mankind: investments in human capital.*

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*Jel classification: I25, J24, O15, P36*

## **Introduction**

Realities of the new knowledge-based economy requires an appropriate updated approach: to avoid simplicity approach of services productivity - matter so criticized by specialists - issue related to this indicator, must be considered in depth and horizon widened, in all aspects, starting with the identification of measurements used to measure services. Developed economies allocate part of their resources to activities with intensive data processing services and information for which, the measurement results cannot be precisely in traditional forms, so researchers need to rethink how to measure productivity and the result of economic activities.

We must make a clear distinction between work done for the production of services and the results of this work (benefit effects). For example, results of educational benefit, depend, among other things, on the intellectual faculties of the students, on the methods used for development, on all circumstances that may make progress in any way, including the preservation and development.

## **Customize to education. Some extensions necessary**

François Perroux, assigns to institutional system a role for growth, plus social and moral climate and psycho-sociological factors. Along with capital accumulation, Perroux talks about acquiring knowledge. On this aspect, Kenneth Arrow says that "growth is the daughter of knowledge" (Arrow 1962: 155-173), as being true and inverse correlation in our approach, which will be shown below.

By the 60s of last century took place in the United States, a broad debate among economists on efficient sources of economic growth (Wonnacott 1978).

As "production index" for education, are used most often, the number of pupils and students and the fees for registration and, in analysis, are used index of wage or price (Jivan 2000: 55). According to ARACIS (Romanian Agency for Quality Assurance in Higher Education 2009),

this indicator is expressed by widening access to higher education, dropout rates, learning outcomes and teaching, research results and hiring graduates.

Mihail Manoilescu (Manoilescu 1986:46), comes to defining the problem of productivity in accordance with "the new interpretations of exchange value, which includes the *various and subtle causes*, explored until now by science" (emphasis added). For example, if a product or service that is based on a very recent invention, so it is new on the market, and may have monopoly, we must take into account the main elements that determine the exchange value, namely: the usefulness of its power of attraction exercised (in this regard, marketing has an important role), quality and, of course, price. In other words, the conversion value is the price the customer is willing to pay for the new product or service to obtain a degree of satisfaction. This approach raises specific problem to the intellectual services.

Productivity of educational services is found in all activity fields. For example, a computer is designed by intellect-intensive services (research, information, etc.), in which are working professionals, who must have adequate training (conducted, primarily through educational services), it is produced by industry (where teachers work with proper training), and for use in various activities, their users need also knowledge related to computer (often gained by attending appropriate courses; in the same way, a car cannot be used in traffic if the driver has not learned the rules of the road and has no knowledge to run it).

"As more is known, is increasingly need science. A large area is to increase knowledge and ignorance horizon. Development of an economy is actually based on three pillars: innovation, research and education. Any addition of individual service quality is amplified. The essence of value was and remains useful in certain conditions of availability "(Jivan 2000: 66).

Following the analysis of macroeconomic correlations between economic growth, technological change in recent years and improved quality of labor, Edward F. Denison concludes that technological change and, hence, economic growth, are not insured by the simple purchase of equipment more efficient, but only in terms of labor quality growth, thus increasing the costs for training and education. These expenses are found in gross domestic product growth, which means *that investment in education is money not spent in unproductive sector* (Denison 1962).

The conclusion is that technological progress is determined by labor quality growth, such as the better educational system, more efficient, based on knowledge, which in turn becomes a factor of economic growth.

Returning to the idea of Keneth Arrow stated previously, we could say that, in the national economy, are forming a virtuous triangle (as you can see from figure 1) between knowledge, technological progress and economic growth. The three elements are closely related. Stress (not develop here) the reciprocal of this determinism.

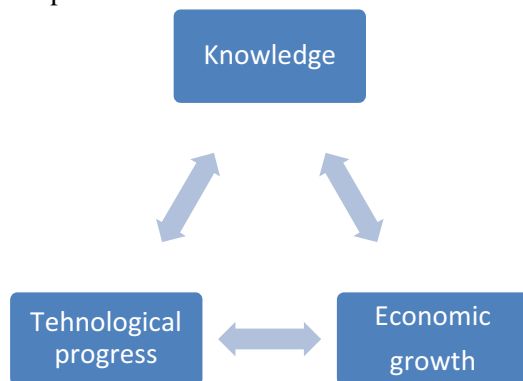


Figure no 1. A virtuous triangle of economic growth  
**Synthetic correlations between scientific research, education and production activity**

On these correlations, worthy of consideration is the so-called "Japanese miracle" manifested in the next period of the Second World War and which is explained by increasing the initial expenditure on education, which led to the existence of much increased number of people better prepared to quickly assimilate technology news.

It was such a new approach to economic theory and, in time to an economic analysis of the educational system. One of the first works in which it is studied from an economic perspective, the relationship between science, education and production, belongs to J.L. Maunoury in 1962, which inventories these twelve correlations:

- *Scientific research* increases the fund of knowledge available to mankind.
- *The production*, also has the products, new information, which are added to the fund of knowledge.
- Existing knowledge *are valued* both in the production process and in obtaining new knowledge.
- Scientific activity is conducted, based on existing knowledge.
- Knowledge is transmitted by the *school system*.
- The production raises problems, whose answer with economic value is found in scientific research.
- *Education* forms *the researchers*.
- *Education* forms suitable qualified labor for *production*.
- Labor force, at anytime can be brought back in the education system for retraining.
- *The production* itself *forms* skilled labor.
- The researchers *improve* their skills and abilities in the *scientific activity*.

The concept of education used above, must include all forms of training: the "classic", modern forms, to "continuing education" (much invoked today). These services with high intellectual charge, form properly trained staff not only for production but also for overall economic activity, which includes intellectual service providers, category in which enter teaching and research staff. In terms of production activity, it is considering, in fact, economic activity in general (and any human activity performed in the social frame: unit non-profit, relief and health organizations with ecological, religious, political, cultural, etc. objectives). Optical author quoted, seems to be, knowingly, outside the *economy* system, as something special, and not as a sector that works and action largely on economic criteria, through economic units – often, large companies). We believe that more should be added, that not only production activity raises the question of scientific research: but life (in general); here is an analysis from an economic point of view, referring to the scientific research, but also the issues arise, and by life in general, not only by production activities, especially as we must have in mind also intangible economic activities, tertiary economic sphere and optical serving.

Education will be the growth factor, only under certain conditions of market regulation, namely, only if the market absorbs productive educational offer and life of society puts it in value, without spoiling it or without the need for continuous training (adaptation, updating), but to fulfill those conditions is necessary to implement an effective government strategy. Shortly, functionally, a major condition is such that the institutional organization to provide training, on the one hand, the higher formation of human resources and, on the other hand, sucking them as beneficial economic and social system. Understanding the relationship between state and free market, form that is considering leaving the state on account of economic action that will be directly affected by the consequences that they foresee in their decisions, but not losing sight of wider (external effects) and long terms implications- matter in which educational strategies are of the great importance. In this respect, the decision should be *most able to take on an expanded knowledge*, allowing major guidelines to follow, established by the contribution of the intellectual elite (at academic level, while respecting autonomy to the said university), (enhanced), based on perennial values, thus taking into account a wider scope than the term arising from market mechanisms.

We note that these mechanisms always contain the risk of myopic approaches, can very easily, as private interests in achieving efficiency in the short term, to hide the destructive effects - as can be seen (and taken into account) only from a strictly individualistic superior vision, on short term and for limited interests in spatial, temporal and conceptual terms (the area of interest: often only economic).

As an economy is larger and more developed, will be much more specialized workforce, and even higher, trading and demand for goods and services. Major cities are rich because of its increasing division of physical and intellectual labor. Therefore, countries such as Germany, France, Italy etc. attract specialized labor force, cheap, from countries like Romania, Bulgaria, Albania, etc., the first category is still developing, becoming in time economies more powerful and finally, the second category of countries, stagnating or even regress recording.

Many countries, including Romania, have governments that do not prove a very tall professional and efficient on intangible investments and have a plan or strategy to invest in the young nation, and to send enough to study and training in areas that advance healthy scientific and professional can be of major importance for the country. In most developing countries, there is a corresponding interest for training specialists and bringing them country by providing conditions to get out from the crowd and demonstrate that there are intellectual potential. Knowledge (knowledge) seems the only guarantor of economic and social progress, as research-innovation (knowledge creation), in this case, research and education plays a key role (assimilation of knowledge, training and professional modeling), education in general.

Knowledge is defined as the power to understand and capture the essence of facts, certainties and recovery information obtained in the form of experiences and lessons (Druker 1992: 95-104). In many developing countries, as is the case of Romania, the education graduates are often placed in a position to migrate due to the fact that state policies are not sufficiently flexible and visionary in the future (long-term effects) to properly integrate the national economy, the concern for providing adequate employment and paid accordingly, in order to benefit the national economy, such that the extra knowledge. An economy for the benefit of integrating these values in the nation to put a priority and preferentially, is the intellectual intensity centers, including high-impact decision - at all levels, starting with the government.

It is right here, citing inspired formulations of Tom Peters: "turn them on staff in Vital Centre of Intellectual Capital Accumulation ... and not bureaucratic sources of stress (Peters 2011: 24) ... A fully mature company, is one that provides professional ... TRANSFORMATIONAL projects dedicated / excellent customer service".

### **Conclusions**

Professions in the knowledge-based services (the intellect) is developing very rapidly, as firms, companies need people with skills, training and know-how needed to get know each other from different sources, process it and exploit it productively. To the expenditures of this nature, must be given the status that they have: that strategic investment, on long term effects. It is therefore very important to invest in this type of human capital which can contribute to economic and social development of countries. In these respects, logical connections (compared) with the Romanian government crisis policies, speak for themselves (it is not our purpose here for other comments).

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