THEORETICAL STUDY OF THE POSSIBILITIES OF MODELING THE PRODUCTIVITY IN MEDICAL SERVICES

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Abstract
The study aims to summarize the most important aspects in defining the productivity of services, in general, and healthcare, in particular. This research aims to distinguish and detect the main ideas necessary for understanding productivity in healthcare, in order to design the foundation of an econometric model suitable to the studied topics.

From the methodological point of view, the documentary material, the studies and the observations on the ideas found in the literature and developments are presented on the main ideas, defining for the productivity in services, with emphasis on intellect-intensity and, of course, keeping a certain chronological order required to reveal the aspects of evolution and development of the ideas; so regarding the development of this article we did not limited ourselves to a simple presentation of the authors, but for an optical doctrinal issues (theoretical concepts and defining ideas) related to topics. Mostly, the research method is the comparative method. For each definitive element of the healthcare pentagon, the main factors and the main effects, resulting from the analysis as adequate to be considered in the modelling, are setup, so as some important parameters, like other effective components for econometric analysis.

The research results define the main points of views of the immaterial productivity, applicable in healthcare and available to be used as a theoretical base for a conceptual model as this could be developed and verified through empirical future researches.

Key-Words: productivity, intellect-intensive services, healthcare pentagon, outcome

JEL classification: I12, D24, H51

Introduction
The immaterial economy researchers were mostly preoccupied on defining the services productivity, starting with the latest decades of the past century, realizing the ineligibility of the material production, for the service benefits domain. Defining the concept of immaterial productivity remains a difficult final manner to be realized.

The pursuit of this article is to present the researches made on the basic theoretical aspects regarding the intellect-intensive service productivity (by customizing from the productivity of the intangible activities, generally taken) to delimitate those fundamental conceptual aspects which will be able to be used to stabilize the main directions of analysis. All this is in order to determine the modelling possibilities and the relevant details necessary to develop a conceptual model adequately to an empirical testing (in future researches, which are not the subject of this paper). For this purpose will be used ideas and theoretical contributions over time, of the great
economists and various authors concerned with this matter, depending on the era in which they lived, which include culture and certain currents of opinion in which they were framed. Some specific ideas, made by this economists’, can be analyzed in order to exploit the deepening of the subject productivity in intellect-intensive services and especially the medical type benefits.

This paper consists of two parts: the first part briefly presents main issues of defining principles and expressions of productivity, as they appear in different authors views, and in the second part are synthesized, on this basis, the fundamental issues emerged for the immaterial productivity analysis, necessary for modelling a future empirical research.

1. Defining aspects for intellect intensive services

To highlight different principle aspects regarding productivity concept which are useful to define properly the immaterial activities and specific intellectual activities, we followed the main ways of presenting this indicator (concept) over time. Briefly, some of the most important expressions of this productivity indicator right from the bibliographic contributions are shown in Table no. 1, in which we were particularly interested in intellectual services productivity. These are developed and completed along right this chapter regarding the elements separation exploit for defining objectives shown.

<table>
<thead>
<tr>
<th>The Author</th>
<th>Specific productivity approaches</th>
</tr>
</thead>
<tbody>
<tr>
<td>François Quesnay</td>
<td>The society is divided in 3 classes (only one is productive)</td>
</tr>
<tr>
<td>Adam Smith</td>
<td>Productive work and unproductive work</td>
</tr>
<tr>
<td>Frédéric Bastiat</td>
<td>Value-service</td>
</tr>
<tr>
<td>Friedrich List</td>
<td>National Productive Force</td>
</tr>
<tr>
<td>John Stuart Mill</td>
<td>Utilities</td>
</tr>
<tr>
<td>Henri Storch</td>
<td>Argument</td>
</tr>
<tr>
<td>Jean Fourasté</td>
<td>Accomplishment</td>
</tr>
<tr>
<td>Mihail Manolescu</td>
<td>Standard</td>
</tr>
<tr>
<td>Daniel Bell</td>
<td>Relations of services takes place between people</td>
</tr>
<tr>
<td>André Vincent</td>
<td>Acknowledgement</td>
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<tr>
<td>Pierre Caspar</td>
<td>Intellectual investments</td>
</tr>
<tr>
<td>Jacques de Bandt</td>
<td>Increasing all education methods</td>
</tr>
<tr>
<td>Jean Gadrey</td>
<td>Mediated output (indirect) and immediately output (direct)</td>
</tr>
<tr>
<td>Alexandru Jivan</td>
<td>Servicity</td>
</tr>
<tr>
<td>Faïz Gallouj, Djellal Faridah</td>
<td>Performance</td>
</tr>
</tbody>
</table>

In view of the French Physiocrats, the first specific approaches on the productivity concept have been resulted out of the society division into classes, depending on their role in producing values. These economists have focused their attention only on material production in agriculture, all other activities being threaten as having an ancillary role in relation to this (Schmidt, 1969). In the same perspective, Adam Smith referred to the productive and unproductive labour, perhaps on desire to impose his own theory of division of labour, Smith limited himself to judging all the benefits viewing through the material character (Smith, 1962), irrespective of their nature (which may be immaterial); this is how Smith seeks the material content in all benefits, regardless their intangible defining nature of some of them. For example, Smith includes the doctors in the non-productive labours category. Smith considers that doctors performs no productive activity that brings profit (material); he doesn’t consider that doctors work generate another type of profit, at a society level, an humanitarian, social benefit, not a strictly economic one, calculated in an industrial production related manner. Doctors don’t produce a material product, but they ‘produce’ (if we can say so) health of the work force that made goods, goods that can be capitalized on the market (sold); they ensure human health, in general.

But the materialist conception will dominate over economic thinking, despite some exceptions such as Bastiat and Dunoyer.

Frenchman Frédéric Bastiat is distinguished by the modernity of his ideas as relating to intangible aspects in the economic cycle and for his way of disapproving the strictly materialistic ideas of the Physiocrats and Smiths’ by developing the value-service theory (Bastiat, 1982). These economists’ ideas are really farseeing with some of his contemporary ideas, regarding the immaterial. Along Bastiat, can be also released some visionary ideas of Henri Storch, an economist who draws attention not only by the strong support accorded to immaterial, but the wording on the power of creation and judgment of each individual, appropriate words to the intellect-intensive services topic. Unlike the French Physiocrats and Smith, Henri Storch is making the separation
between productive and unproductive work nature to the value of what it can be produced and the value of what consumes that specific work, regardless of the industry in which it belongs (Storch, 1823). Thus, both the sterile class (as the Physiocrats view) and employed workers in the intangible activities provision are considered productive by Storch, if they produce an equal amount to their consumption (this is his productivity measure: recovery of consumption and, if possible, overrunning by the produced value; it will be found at least in the form of cost-effectiveness, according to the latest systematizations, see, for example, Djellal&Gallouj, 2012).

Compared to Adam Smith, concerning any action underlying technical progress as a result of the material labour division, the German economist, Friedrich List is viewing, in addition, the division of labour (material and spiritual) and H. Storch recalls the division of immaterial labour. F. Bastiat enriches the analysis with the ideational on service-value. Bastiat, Storch and List had a great opening towards the immaterial, too. They revealed that this performance results mostly induce effects even if they are not tangible or stored, having a major impact on the economy and society.

Friedrich List distinctly formulated the first ideas about intellect-intensive services, noting the creative power of the human intellect as a meaning of developing nations, in opposition to the smithies’ concept focused only on material. Along with these valuable formulations of some economists in the nineteenth century, recalling the ideas of John Stuart Mill on moral, ethical and utility, the essential concept of the studied topic is likely to fill up a complex picture of the reality of healthcare productivity.

List suggests the principle of division of work and associating of the productive forces, instead of Smiths’ division of labour theory. The German economist believes that intellectuals contribute substantially to encourage morality, culture and knowledge, but mostly it leads to increasing the goods production, as well as encouraging the spiritual production (List, 1973: 138). This inter-compliance highlighted by List seems to be ignored in the current economic thinking, as we can see, especially in contemporary economic reality of many poor countries or in developing countries, where macroeconomic policies and the objectives are developed only by short term, and spending on education, health, research and development are perceived as difficult to bear for national budgets; in turn, these expenses types acquire different connotations in developed countries because, even they are recorded as expenses in the accounting systems, they are given a central role and considered investments in human resources, durable investments whose “fruit” will be collected over time and across generations (Jivan Toth, 2012).

In the twentieth century, the French economist Jean Fourastié developed the first formulas of productivity and its expression and Andre Vincent made an outstanding analysis of productivity in the industry.

After the 1950s, when the technical progress presents an uptrend, Jean Fourastié said that the progress notion naturally leads the analysis to the productivity or efficiency notion. In his opinion, productivity express the speed of human action throughout the difficulties in the way of progress are diminished (Fourastié 1963: 33). Fourastié noticed the difficulty of fully understanding the significance of the production factors and the fact that production (understood as a physical production, not production value) is, for the most part, heterogeneous (Fourastié 1952: 52). The French economist mentioned that these different product productions cannot be compared, giving as example the productivity in a steel mill in and the one in a shoe factory (Fourastié, 1952: 53). The differences in the productivity industry are correlated with certain inconsistencies in service learning activities and their productivity, analysis could be extended to distinguish so-called productivity in services to industry productivity or agriculture, such as: productivity is a quantitative industrial type notion which ignores the qualitative elements, even Fourastié referring, as I quoted above, at physical production, not the value of it. Analogously to the set, the physical production of medical services is not relevant, for example, it cannot be said that the number of discharged patients indicator would express “production” of health services, at least for the fact that although they are discharged from hospital, they had - at hospitalize – different degrees of severity of adverse health effects have and - at discharge – they have varying degrees of health, there is always the question that it would always be completely healed and no longer needs extra care; other relevant indicators for medical services (through which the component to be highlighted and qualitative) are hardly considered in this regard, to be highlighted, as demonstrated by the great scholars of the field (for example, such as Jacques de Bandt, Jean Gadrey, Faïz Gallouj), insufficient statistical data on services and superficial accounting records relating to immaterial, which leads to other issues than the primary emphasis in the analysis of services productivity.

After the 1970s, the economists have focused their attention on finding classifications, expressions and indicators by which they sought the most appropriate formulations and definitions of immaterial productivity, so were discussed concepts such as intellectual investment, servicity and terms as intelligence, outcome, efficiency, performance, acquire specific meanings in the immaterial domain as compared to their expression in the industry.

Productivity differences between different types of productivity are also distinguished by the economists Daniel Bell and Jacques de Bandt. Daniel Bell asserts that productivity in services is lower than the industry due to the fact that relations services takes place between people, so Bell gives examples such as trading services and marketing where are many suppliers and immaterial productivity is capping; in personal services (hairdressing,
travelling) is time which decide whether customers will be satisfied and in medicine, despite of the introduction of new diagnostic methods for examining several patients, the doctor does not have time extended to treat a patient (Bell, 1976: 198). Jacques de Bandt completed, in 1990, the opinions issued before him, referring in particular to labour productivity, showing that its growth is achieved not only through more efficient tools and performing equipment but through "enhancing the education methods and by accumulating knowledge" (The Bandt, 1991 54). The issues mentioned by De Bandt are particularly revealing issues of the intellect-intensive services in whose area falls and mostly the health-related activities, the implementation that De Bandt raise, leads to the concept of intellectual investments which appears in immaterial investments vision, developed, among others, by Pierre Caspar, investments that found the starting point in the complexity of social relations, ways of financing, as in economic manufacturing and marketing circuits (Caspar and Afriat, 1988: 26), because the client or the user of the products / services is increasingly demanding (Caspar and Afriat, 1988: 26) adding that, at present, the central element of economic relations is quality.

As formulas for the productivity concept retain those conceived by Manoilescu André Vincent (both labour and capital immaterial productivity and overall productivity or total factor productivity). Although researches based industries, productivity expressions designed Manoilescu mind, because he calculated this indicator on the basis of the net, distinct factors labour and capital, but unites the two formulas using a geometric mean generating a quality coefficient (see Manoilescu, 1986: 146). André Vincent expresses immaterial productivity (gross, net and the factors) by the production ratio (gross or net) and factors (labour, capital and other factors in unit of work). (Vincent, 1968: 6)

Pierre Caspar emphasis on intellectual investments; Jacques de De Bandt highlights the importance of increasing the education methods; the intellect investment effects are felt after long periods and very long, and decisions can affect or improve the living conditions of future generations, human capital, health and humanitarian (Jivan and Toth, 2012). Due to the high degree of immateriality, in the intellect-intensive services is mainly remarkable the factor-I action, i.e. the intellect, the idea, the information, innovation, imagination, initiative (Jivan, 2000: 37) and the action of this factor on the benefit is directly felt by the user of such a service (defined as intelligence and ability to adapt to unforeseen circumstances and the choice of action in the circumstances, according to Caspar and Afriat, 1988: 26). In medical services case, it is obvious that, in addition to factor I, the quality of medical care is influenced by moral and doctors’ human involvement, on the one hand, and, on the other hand, the involvement of the patient and his response to treatment, (this leads to a reduced recovery period).

Jean Gadrey emphasizes the role of the efficiency partial criterion productivity indicator, appreciating the fine analytical distinction between immediate and mediated effects, depending on the temporal horizon that manifests results (Gadrey, 1996). French economist adds the concept of outcome, as the long-term result, issued in the completion of which take into account the quality of the actions of participants (both providers and beneficiaries) and the social structures to which they belong (Gadrey, 1988). Starting from the services triangle overwrought Jean Gadrey developed the medical services pentagon, too, by separating the organizations from direct service providers (such as hospitals and clinics) and adding regulatory institutions (ethical norms, regulation, organization and so on and regulation the relationship that is established between the organizations and providing agents). In the medical health Pentagon the transformed reality represents health condition, as the achieving and maintaining its long-term and very long. (Djellal and Gallouj, 2012, p 85).

Faridah Djellal and Faïz Gallouj reconsider the concept of performance by including it between services indicators, as more suitable for the intangible activities with a broader horizon than the concept of productivity; these authors look at the performance as a broad concept that includes notions of efficiency (or internal performance, measuring objectives achieved by the use of resources) and effectiveness (or external performance, which involves the degree of achievement of objectives) (Djellal Gallouj, 2012: 24). We consider the concept of internal performance that Gallouj Djellal developed as an extension of Gadrey researches (although it can be said that these authors are trained, like so many others, "at the school of Gadrey", which thus continue), the term of efficiency involving both technical efficiency (or productivity) and financial efficiency (or profitability), and productivity and profitability separately studied represent each a partial efficiency criterion (this methodological concepts were put together with the concept of servicity and more presented in Jivan and Toth, 2013).

The analysis of the economists Djellal and Gallouj is directed to efficiency of achieved objectives of an organization, performance developed indicator by these being predominantly still a quantitative indicator corresponding to traditional approach, specific to industry. To complete the efficiency problem, in the sense of adding a distinct concern even for the efficiency out of the set targets by the organization analyzed in a qualitative approach, in defining more suitable services, it is important to consider the servicity indicator (developed by Jivan): in addition to external performance (developed by Djellal and Gallouj), linked only by the organization's objectives, servicity takes into account another type of external performance (enlarged appropriately to a complex efficiency, moral, religious, economic, spiritual, environmental, political, etc.);
servicity corresponds better to serving size of advanced economies, to the relations that take place in the economy by establishing correlations between providers and recipients, between the external environment and providers, between the external environment and beneficiaries, meaning taking into account the whole economic and human-social system, which, moreover, is also regarded dually, (i) in terms of beneficiaries and the surrounding framework as a whole, too, together with (ii) the common approach (in terms of economic agents), thus taking into account the effects (negative or positive) induced to both parties. (Jivan and Toth, 2013).

2. The main variables synthetically considered, for the modelling in health care productivity

As determinants of immaterial productivity and the quality of performance can be considered different economic, social, technical, political factors as well as the components of the services triangle, which, for medical services, we can add the items considered in addition in Jean Gadrey’s pentagon of medical services.

Determinants acts differently depending on the nature of the services rendered the manner of manifestation of the effects and relative importance of the factors labour and capital, as described below.

(i) The action of the determinants depending on the nature of services provided (intellect-intensive and other services) is manifested by the fact that the factors that directly influence the intellect-intensive services - namely, human factors, social and economic - indirectly influences all other services (of course different proportions).

They may be considered in modelling in the form of specific coefficients, for some factors individually and for others in group (more complex coefficients), thus in conjunction with the formula of the living level (Djellal and Gallouj, 2012: 44) where, the living standards rise, in summary, due to labour productivity, working hours and employment rates.

(ii) The same compliance, the factors influencing indirectly intellect-intensive services - namely technical factors, organizational, political and institutional - directly influences other services.

In turn, these factors can be found in the productivity of capital, the allocation of resources to specific expenses (with health, with education, with research and development) in the GDP / inhabitant.

(iii) Determinants act differently and according to the manner of manifestation of effects, meaning that knowledge-intensive services produce long and very long-term effects, while the majority of other services produce only short-term effects.

The differences between the actions of the determinants occur also according to the action of economic factors K and L, because, while traditional services are quite strongly influenced by the factor capital, the intellect intensive services depend factor defining on intellectual work, so they put a much greater emphasis on the preparation of it.

These factors will be considered different in a conceptual model (and various empirical analysis): the direct action could be considered as such, while the indirect must be considered with a certain weighting coefficients, this weighting would mean, in terms of quantity, a reduction of their impact (after the intervention elements mediation proceedings, or impaired in some other way) or a multiplication (amplification).

Multiplication may be considered as potentiating (gain) simple (with simple coefficients), or can be calculated more complex, even calling a multiplier effect.

In preparing the conceptual model of productivity in intellect-intensive services applied to the health services will be considered both the capacity management (efficient use of capital), other resources used (resource productivity) and the quality management and other quality aspects related to efficient management and quality management.

If resource efficiency can be expressed directly by comparing outputs (production Q) to factors capital, labour or other resources, meaning quantitatively, quality management can be expressed in a complex model for the analysis of productivity only by some qualitative coefficients.

When on empirical research on productivity in health services, primarily determinant factor should be consider the human capital and its positive effects on long and very long-term, most probably in a multiplier calculation.

Also, a high-impact have the government decisions, the economical balance, the social system and the health care system, research and development expenses and health and quality of life in general expenses, but we must not ignore issues of morality (the whole complex quality of care), service quality and media use, new technologies successfully used in medicine. Finally, patient involvement is reflected in the final outcome of its medical benefits, on short and long term.

1. Thus, regarding the factors in a complex analysis of the of medical services productivity, as well as the purpose of establishing an conceptual model to empirical research, it should be taken into account in particular of (see table synthesized below): the professional training of medical staff (should be considered theoretical the
practical application of high theoretical level expressed by extremely high qualification balance in the medical staff and the of researchers balancer in research and development domain, in every sector research area - military, physics, chemistry and so on - were created different applications and have successfully found application in the medical field), working hours, employment rate (both in general and the medical field, in particular), motivation (as cash income) for healthcare providers, spread and quality of media materials used in diagnosis and treatment and the capital amount in general, but also the size of resources in the context of a particular national GDP / habitant (habituant output, average productivity growth in the national economy, which allow a certain level of medical services demand by the population and a certain founding level from the state medical system). We should not lose the fact that a number of factors (such as individual income mentioned) are actually closing, an inter-causal circle meaning they represent the health care effects too, of course mediated effects and, mostly found over time determining the correlations in both directions.

2. Regarding the effects, we consider in particular: general and individual income (of the direct providers and medical facilities) and health level of the population. Regarding the incomes, we see that they depend, in the Romanian health system case, of the sums granted by the state budget: so, in fact, they have a determinant role on the quality and productivity of health services (play the role of factor), and not primarily an effect; but, at least in the case of private health care services, they are more as a direct effect indicator. Public health will be estimated through the average life expectancy (including all criticisms that may be made of such correlations) and by the improvement of the patient health itself (with the reversal in malpractice cases) and of the population as a whole, quantifiable by some status indicators and unit evolve. We mention that charges of malpractice (even in cases where, in the end they are proving unfounded) have a major psychological impact on the general mood (and thus activity) of doctors involved in such charges, for example, allocated trial period results in lower overall efficiency of the doctor in question, lower self-esteem, loss of patients and so on, all with the effects of medical benefits productivity.

3. Special qualitative elements – and some, specific to medical domain – such as patient productivity, public ‘reforming’ decisions, legislative changes (including public procurement law), restricted employment measures in the medical field, the closure of some hospitals or renouncement of their profile care units (changing the profile establishments in question), as all this happened in Romania during the crisis may be considered by some parameters: such issues are difficult to quantify and involving an extremely high workload for a given rating - and that with no chance of accuracy satisfactory - can be inserted [involved] only plausible, on the basis of comparative criterion (the hierarchy of importance, it can turn to a hierarchy of interconnected parameters - mostly qualitative - by assigning some value hierarchy coefficients).

For the administrative decisions taken in the last years, is ought an impact study with a calculation based on multiplying effect (study which, in fact, should have been done by responsible factors before taking such measures), in order to determine the long term effects. Certainly but in, most of the problems of this type, the dimension of a research like the present one or one that would develop empirically those mentioned here, do not allow to be regarded more than a correlations study (although it is widely used in many empirical researches based on conceptual pattern), but even so it is capable of generating a closer understanding regarding the amplitude of the impact on long-term over the entirety production of the Romanian medical system, few years after the implementation of such measure.

The nature of an impact factor on long and very long term is also the creation of a stock of human capital and the investments in human component - as intangible investments (particularly intellectual) which also incumbent a specific treatment. If some aspects like education of the provider and of the clients could benefit from some testing in correlation with other variables of the conceptual model of the medical services productivity (especially with the help of studies based on statistical correlations coefficients), others, like the balance in the medical healthcare system, the decrease of corruption within the system, the quality elements related social tensions, work habits (absence, promptitude etc.), fatigue degree, work environment, complex issues related outsourcing-insourcing of services types that may influence the quality of the healthcare services may remain as intention. But also these aspects can be considered opening lines for scientific research in the field.

4. Regarding the form of modelling, for empirical research can be for various forms of performance, from the simplest (classical), to more sophisticated, given the mediated character of some services (the their effects), ideal services and different correction coefficients: through coefficients and parameters can be tried to take into account, at least intuitively (if not more exactly in some cases, when available data can allow) by a series of more profound, qualitative, for which do not exist usually direct assessment, in the regular statistical-accounting system, ignored by the common measurements of productivity, but justified as having a role (still) not neglected. Of course the latter must be taken into consideration based on a, even if the reasons are debatable, since, in the specialty literature, there is no consensus in relation to them (and the form in which has to be estimated, even if to be or not considered). Their choice and those of forms, requires, by itself, a necessary and unavoidable, original approach.
A part of the theoretic presented above-can be supported by a system of factors appropriate for health care services (eventually inspired also from the setting manner, by Jean Gadrey, of the differences between the defining triangle for the services in general and the pentagon designed health care services in particular)- could be synthesized into a conceptual model of factors-effect form, based on the following: I synthesized on each element of pentagon, into an incipient form, the main aspects set out in the table below, presenting them in such a way that prepares the research of the productivity of the health care services on the 5 components of the pentagon, meaning Regulatory Authority (R), service-providing organizations like hospitals and clinics (O), service providers i.e. doctors, nurses etc. (P), regarding the customer-user (C), and to service medium: reality transformed or repaired. (S).

Table No. 2. Referring Elements to R

<table>
<thead>
<tr>
<th>Factors</th>
<th>Parameters</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>- allocated funds for human capital investments</td>
<td>- public decisions; - different kinds of qualitative-functional elements, as the balance in medical system, the system corruption control.</td>
<td>- medical services income</td>
</tr>
<tr>
<td>- and monetary motivation form of health care providers;</td>
<td></td>
<td></td>
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<tr>
<td>- the granted size of medical facilities capital</td>
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<td>- and other resources for this.</td>
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</tbody>
</table>

Table No. 3. Elements regarding O

<table>
<thead>
<tr>
<th>Factors</th>
<th>Parameters</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>- employment rate: in medical domain, related to entirety population employment;</td>
<td>- qualitative and functional elements of nature climate and work habits in reference to social tensions, including the mal-praxis charges - the externalization-internalization of some sort of services.</td>
<td>- medical services income</td>
</tr>
<tr>
<td>- monetary motivation form of health care providers;</td>
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<tr>
<td>- work hours in healthcare services;</td>
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<td>- material supports used;</td>
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<td>- capital amount;</td>
<td></td>
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<td>- other resources.</td>
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</table>

Table No. 4 Elements regarding P

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<tr>
<th>Factors</th>
<th>Parameters</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>- professional training of healthcare employees;</td>
<td>- another quality-functional elements (climate and work habits, social tense, mal-praxis charges, etc.)</td>
<td>- healthcare employees incomes</td>
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<td>- general education degree.</td>
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</table>

Table no. 5. Elements for C

<table>
<thead>
<tr>
<th>Factors</th>
<th>Parameters</th>
<th>Effects</th>
</tr>
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</table>
5. Thus, out of the synthesized can be developed (and verified) assumptions on the nature of the below:
- The increasing of health balance expenditure and expenditure on research and development leads to increased life expectancy;
- Medical staff professional training and supports equipment used in the diagnosis and patients treatment influence the service quality;
- Government decisions rashly taken lead to functional disturbances in the system, some of them for long-term (such as the closure of many strategic hospitals) at the same time it affects the permanent legal changes. (Especially national procurement law, without changing the European Procurement Directive: this eventually leads to procedural errors);
- Creating a human capital stock and the investments in human component leads to healthy effects for the entire society for long term and very long term; in general, the intellect-intensive services have a positive impact on the human factor of national economy, of society in general, contributing to human development (superior to economic development on the short term, medium term and strictly quantitative).

**Conclusions**

We emphasize that the summary above include intuitive and forward-looking, just a few lines that can be developed by applying empirical researches.

The mediated effects and their outcome nature have a special spread of intellect-intensive services. In general, intangible activities are productive or efficient, but in a different way than material activities. In most activities intangible benefit does not have tangible results, cannot be saved, and the consumption of services occurs simultaneously with the time of occurrence. However, if the intellect-intensive services, we note a certain knowledge accumulation a basic stock of knowledge, which can be updated and enriched (supplemented) continuously through active learning processes and maintaining on the basis principle and data bases: a specific storage type, of course, another one then its own material objects. Such effects – with profound and untraceable implications (but pretty easy to guess) – bound the responsible factors at the administrative level (local and governmental, including legislative and economic line) to major responsibility attitudes for the state of nation, beginning with the health status. This requires the existence and to the consequent application - and with priority over the other areas, especially during critical periods – of a national strategy for long term and very long term in health (and education).

The effects or the intensive services results in knowledge can be mostly felt on long term and very long term as example the effects of educating the younger generation will be collected over years, over time, the youth of nowadays will be tomorrow's employees; they are seen in the general human society, impacting on behaviours in citizenship, in democracy function and their units of a modern society (and... educated) in criminality rate, etc. Similarly, the taken measurement effect in the medical field will be experienced over years, too, in the population health status, in the active population number, in the people concerning nature and in their productivity etc. In the medical field every involved actors in the process (patients, medical personnel, institutions, etc.) should be aware of the individual concerns orientation importance not just for its own sake, but for society welfare. If only the own good is the one which outweighs, in the entire social set, economical, political, etc., negative effects can be spread and functional imbalances will be differently felt but each participant in the activities in question and globally (Jivan and Toth, 2013 and Jivan, 2000).
Acknowledgements

“This work was partially supported by the strategic grant POSDRU/CPP107/DM11.5/S/78421, Project ID 78421 (2010), co-financed by the European Social Fund – Investing in People, within the Sectoral Operational Programme Human Resources Development 2007 – 2013.”

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