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IMPROVING REGIONAL COMPETITIVENESS IN THE LIGHT OF ENDOGENOUS GROWTH THEORY RECOMMENDATIONS

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Abstract: Competitiveness of a region shows its ability to generate adequate amount of exports, on the one hand, and to ensure full employment and rising income levels of workers, on the other hand. In this context, it follows that productivity growth of locally-oriented economic activities is decisive for improving regional competitiveness. The paper starts with the premise that to understand the nature of the phenomenon of regional competitiveness, it is of great importance to know the basic theoretical postulates of endogenous growth theory. The paper examines the most significant messages of the theories of endogenous growth for the policy of regional competitiveness development (the growth of investment in education, training, research and development, i.e. investments in factors that decisively contribute to the commercialisation of knowledge in innovations). The aim of the paper is to present how each of these mechanisms influences the growing efficiency of accumulation of factors of regional economic growth, thanks to manifestation of various external effects. The importance of research is reflected in the quotation of conclusions of the supporters of endogenous explanation of growth that no economic convergence is necessary at all. In a word, economically more superior regions can smoothly improve competitiveness and raise the living standards of their inhabitants, while economically less developed regions can always be poor and insufficiently competitive. This is also a very strong message of the creators of regional policies.

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1. Introduction

The improvement of competitiveness is a central preoccupation for both economically developed and less developed states in increasingly open and integrated world economy. The process of globalisation of world economy resulted in rapid increase of significance

of the phenomenon of competitiveness in economic theory and practice. The countries which understood the role and importance of the imperative of continuous improvement of competitiveness timely, managed to strengthen their economy within a relatively short period, increase investment and export and create a stable base for economic development for a long time.

Considering the phenomenon of competitiveness, the researchers in economy focus on various subjects of analyses: an enterprise, a sector, a region and a country. Due to their extreme complexity, the researches in competitiveness are inevitably associated with great simplifications. Namely, while investigating key dimensions of this phenomenon, only a minor number of reasons for different levels of competitiveness can be taken into consideration independently of the subject of analysis.

Although the development of competitiveness of a region is often shown as a vital target of regional strategy, the absence of generally adopted definition of regional competitiveness is a significantly limiting factor for the research in contents and importance of the category of competitiveness. Furthermore, a number of economists are categorical in their attitude that the competitiveness of a country, and consequently regions as its constituents, is basically a wrong conception (Krugman, 1994), since unsuccessful enterprises will be forced out of the market in case of low competitiveness, while such analogy cannot be made for countries. When enterprises compete for their market share, then the success of one is achieved on account of another, less successful. Such logic cannot be applied to national economies, since the economic success of one country is rather beneficial than harmful to other countries. This effect can be found in the literature named "a zero-sum game". Therefore, many economists think that if competitiveness is economically significant at all, then it is the other way to express productivity (Krugman, 1994). The progress of standard of life in one country is basically conditioned by the growth of rate of productivity. Shortly, it can be concluded that there is theoretical consent that the progress of economic performance in one country need not be on account of another on the one hand, and that productivity is a vital problem of competitiveness, on the other.

Bearing in mind the previously stated observations related to the phenomenon of competitiveness, in pure conceptual sense, two supporting points are included in this paper. The first is respect for the economic theoretical approach to the issue of the level of productivity, which depends on the degree of approach to this phenomenon, while the other is related to its vital sources in economic theory.

In shortest, competitiveness of an enterprise, a sector, a region and a country should be differentiated depending on the level at which it is investigated (Vuković, 2013, p. 129). The analysis of theoretical concept of competitiveness can be mainly microeconomic or macroeconomic. Microeconomic analysis of theoretical background concept of competitiveness is predominantly explained by postulates of urban growth theory, new institutional economies, theories of business strategies, and Schumpeterian development of economic concepts (Kitson, et al.,

2004). Macroeconomic analysis of the concept of competitiveness is supported by classical teaching, neoclassical theories, Keynesian theories, and theories of economic development, endogenous theories of growth and new theories of trade (Kitson, et al., 2004). Respecting the fact that each of these schools has own view of the phenomenon of competitiveness, this research emphasises the competitiveness of a region, especially in the light of consideration of significance of endogenous theories of growth for the policy of its improvement.

In addition to the introduction, the structure of the paper includes three sections. The first section attempts to define more closely the characteristics of regional competitive concepts. The second explicates the most significant theories of endogenous growth, while the third presents key meaning of endogenous theories of development, related to policy of local improvement of contemporary economic activities

2. The idea of competitiveness of a region

Competitive ability of a country implies its ability to manufacture and distribute products and services throughout international economy which can compete with the products and services of other countries and thus increase economic welfare, i.e. improvement of living standard of the population. The economy which is more competitive in comparison to other countries, establishes the improvement of living standard of population based on the increase of productivity, not on loans or other elements of economic policy with short term effects.

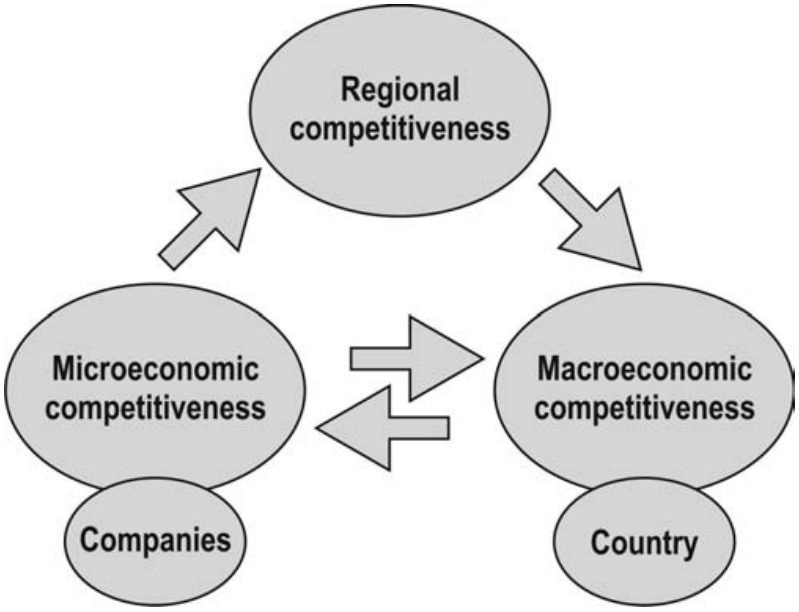
The level of competitiveness is a result of complex influence of numerous macroeconomic, political, judicial and social factors. The function of the level of competitiveness and productivity of enterprises included in its economy is direct. The economy of a country cannot be competitive without successful domestic and foreign companies which are included in its structure. Only the increase of productivity of domestic and foreign enterprises can contribute to sustainable increase at the macro level. Productivity supports high earnings, stable currency and satisfactory returns of investments, which is in the function of strengthening purchasing power and higher living standard of the population.

The concept of regional competitiveness is defined between micro and macro competitiveness. It can neither be expressed as micro, nor as macroeconomic category, since regions are not simply a reduced version of certain national territory, neither are they aggregate expression of enterprises which function in certain area. Accordingly, regional competitiveness is not only the result of macroeconomic stability on the one hand, and the achieved level of development of entrepreneurship at the micro level, on the other hand. It is primarily the result of new patterns of competitiveness which have their regional component (Annoni & Kozovska, 2010). In shortest, this phenomenon speaks of capability of a province to create increasing and above-average income and to improve living standard of

the population who live there. In that sense, it can be said that competitiveness of a region speaks of its economic capability to optimise the utilisation of available resources and means aimed at competition with other regions, to improve on both state and worldwide markets, continuously adjusting to their changes (Martin, 2003).

Regional competitiveness can be defined as the success by which regions are mutually compared (Kitson et al., 2004). For instance, it can be the division of export market (national and international), or attractiveness for capital and workers. Shortly, the concept of competitiveness of a region is specifically positioned between micro and macro degrees, thus representing a unique coherence (Cvetanović et al., 2015) (Figure 1)

Figure 1. Regional competitiveness



Source: Cvetanović et al., 2015, p. 15.

Regional competitiveness indicates the quality of life of the people in the observed region as a territorial part of national economy

3. Endogenous development theory

The foundations of the endogenous development can be found in the papers of Romer (1986, 1987, 1990), Lucas (1988), Grossman & Helpman (1991), Aghion & Howitt (1992) and many other researchers.

Romer's model (1986) is one of the first and indisputably most significant papers related to the endogenous theory of growth. It begins with the assumption of existence of a great number of enterprises and conditions of perfect competitiveness. In Romer's opinion, the neoclassical theory did not manage to unequivocally determine the essence of technological change which, according to him, embodied the established knowledge, i.e. ideas, incorporated in objects. Although enterprises treat the technological level of production as a given quantity, Romer thinks that jump of technology or knowledge has endogenous influence on economy as a whole. More precisely, the spillover of technology and knowledge between companies leads to increased productivity of physical capital. In this way, the premise on exogenous character of technological change as a key disadvantage of economic growth in neoclassical interpretation is abandoned. In it, long-term growth is led primarily by accumulation of knowledge of market subjects, whose aim is the maximisation of profit. Considering the fact that the capital possessed by other enterprises is given, Romer assumes that production function of individual enterprises can have a typical neoclassical form. At the same time, the author suggests that the productivity of capital of these enterprises grow with the increase of total capital of other enterprises. In other words, the investments in capital generate externalities, hence all enterprises taken as a whole are not faced with decreasing returns (Romer, 1986). The production of final goods is a function of accumulated knowledge and other investments. The existence of sufficiently strong externalities is assumed, so that the fund of knowledge can achieve constant growth. More precisely, the fund of knowledge in economy is assumed to be proportional to the fund of physical capital, which means that greater investments in certain sectors increase the experience in manufacturing process, thus making it more productive (Acemoglu, 2008).

With his model in 1990, Paul Romer expands the concept of Kenneth Arrow's curve of learning by adding the hypothesis of knowledge spillover which states that at the very moment the knowledge occurs, it becomes available to everyone (Romer, 1990). Since the enterprises are not conscious of producing knowledge, they always consider the technological level specific quantity together with time the factor which may be applied without any extra expense in the process of production. Unlike physical capital which is produced from the previously manufactured product with constant returns, it is supposed that new knowledge, as a result of research and development has the quality of decreasing returns. Shortly, besides the accumulated knowledge for certain time, the doubling of investment in research and developmental activity will not double the produced quantity of new knowledge. The investment in new knowledge creates externalities. Accordingly, when an enterprise creates advanced mastery, it positively influences external productive capacity of competitive enterprises.

Although Romer managed to endogenise technological changes, his model was not quite satisfactory. This is simply due to the fact that this category is presented

as an accidental result of economic activity of an enterprise, which does not correspond to real processes. It is indisputable that new knowledge is not acquired accidentally. It is a sustained, organised effort of a company in its sector of research and development, which deals with discovery of new knowledge, trying to raise monopoly profit in those activities.

Aside from to Romer, Lucas made a significant contribution to the theory of endogenous growth; he said the interaction between individuals involved in the process of creation of knowledge directly influenced the accumulation and transfer of knowledge (Lucas, 1988). The higher level of human capital implies the faster process of accumulation. Hence, the balanced growth rate will be higher. It is assumed that human capital consciously increases due to individual decisions on investment in education, whereby the main motif lies in higher earnings. Since each generation of employees inherits the previous and acquires new knowledge there is no declining returns on human capital. According to the second version of the model, group training of labour force and the process of learning by doing result in the increasing returns.

The following models of endogenous growth established more direct mechanisms of creation and accumulation of knowledge in relation to initial Romer's model. Although those models of economic growth are mutually different, they treat the accumulated knowledge as a planned result of the decisions on investment in the activities of research and development. The implications of this approach are that knowledge stops being purely public good, because in order to stimulate companies to invest in knowledge, it has to be at least partially exclusive. By disabling other enterprises to use their inventions, the innovative enterprises acquire a kind of temporary monopolistic power. The mechanisms which enable temporary monopoly are the instruments of copyright and the similar. Monopoly position enables enterprises to make profits which justify the expense and risk of research. Monopoly profits, however, stimulate new enterprises to enter the fight for market shares. Namely, in the conditions of increasing returns, the enterprise with the greatest market share makes the biggest profit. Unlike Romer's model, these models of growth imply imperfect market competitiveness. In this case, instead of perfect competitiveness, the market is characterised by monopolistic competition. Namely, although enterprises can disable their competitors to copy the ideas directly, it does not mean that spillover to other competitive enterprises is absent. The competitive enterprises can rely on available public knowledge as an input in the production of new goods, or employment of labourers from the enterprises which are leaders in innovations.

The theory of endogenous growth recognises the knowledge which is neither purely public goods nor purely market goods. Unlike public goods, market goods have two main characteristics: competitiveness – only one person can use them at a given moment, and exclusiveness – it is possible to exclude others from utilisation

of goods which are owned by certain economic agents. Namely, some knowledge is not completely available to all subjects on the market. It relates to the knowledge which is, for instance, protected by various forms of intellectual property or is kept as business secret by the users of the knowledge. Such knowledge can be treated as a productive factor equal to physical capital, which has its corresponding market structure. Shortly, two characteristics of knowledge – unlimited growth and spillover are the most significant characteristics for the theory of growth. If non-competitive goods produce value, then the output can be constant economy of scope for all inputs taken together (Romer, 1990).

Romer (1990) also developed a model where technological development was presented by the growth of number of products. It consists of four factors of production: physical financial assets, labour, staff and technology accompanied by three fields of economy: the field of research and development whose constituents are staff and the accumulated knowledge aimed at production of new knowledge. More precisely, that sector produces a "new design" for production of intermediary available funds. The second is a sector of creation of intermediary available funds which include the design obtained by the sector of research together with the previously created product of final sector (which is not consumed but saved) in order to produce diverse new intermediate capital goods. The sector of final goods however, uses labour, staff and intermediary available funds in order to make final products for consumers. The product can be used either for consummation or saving. With respect to the real world, the model logically has numerous simplifications. Inter alia, it is clear that research sector uses human capital and labour besides knowledge, and that sector of intermediate goods uses human capital and labour as consumption, which is omitted in this model for the sake of simplification.

Perfect competitiveness is present in the sector of production of final products. However, it is not possible in the sector of production of intermediate capital goods, because each producer in the sector has the patent for manufacturing intermediate capital goods, either by own investment in research and development and thus acquiring the new design which is copyright, or by purchase. Regardless to the model of patent protection, each individual producer has an exclusive right to use the patent in production of corresponding capital good, thus being a monopolist in its production. Perfect competitiveness is present in the sector of research and development, since each enterprise uses physical and human capital to produce new designs. Unlike human capital, technology is free. The individuals with human capital and enterprises which need it for producing a new design are present on the market. Hence, the human capital market is characterised by perfect competitiveness. When an enterprise produces a new design, a great number of potential customers of the patent appear from the sector of intermediate capital goods. The price of a new design, as well as human capital is determined on the perfect competitiveness market. The model implies that the long-term balanced rate

of development is determined by the accumulated human capital level. When the balance is stable, insufficient staff is intended for research and developmental activities. It can also be concluded that the growth is more intensive when relative relations between the quantity of staff and labour becomes more favourable, and when human capital used by enterprises in the sector of research and development is larger in comparison to total quantity of the accumulated human capital (Mervar, 2003).

Grossman and Helpman (1989) together with Aghion and Hovitt (1992) developed endogenous models where continuous improvement of quality of existing products resulted in technological changes. Such models reflect the so-called Schumpeterian approach to technological changes. These models emphasise vertical innovations, i.e. technological and commercial improvements of the existing products. Thanks to innovations, the existing products are replaced on the market with new and more quality ones. The producers receive temporary benefit until new manufacturers with more competitive offer of products appear on the market.

The representatives of endogenous clarifications of economic development oppose an assumption of neoclassical economists about factors of decreasing returns, thereby emphasising the role of externalities in determining the rate of return on new capital investments. They think that investments in staff made by state and private individuals create externalities and rise of productivity, which annuls the expression of factors of decreasing returns.

Endogenous theory of development declines the views of neo-classicists related to three principal constituents of economic development of the region. They consider physical, human, social, creative and ecological capital essentially significant in addition to factors of physical capital, labour and technology. This practically means that the improvement of competitiveness of a region under other unchanged conditions implies the growth of efficiency of use of any of these factors.

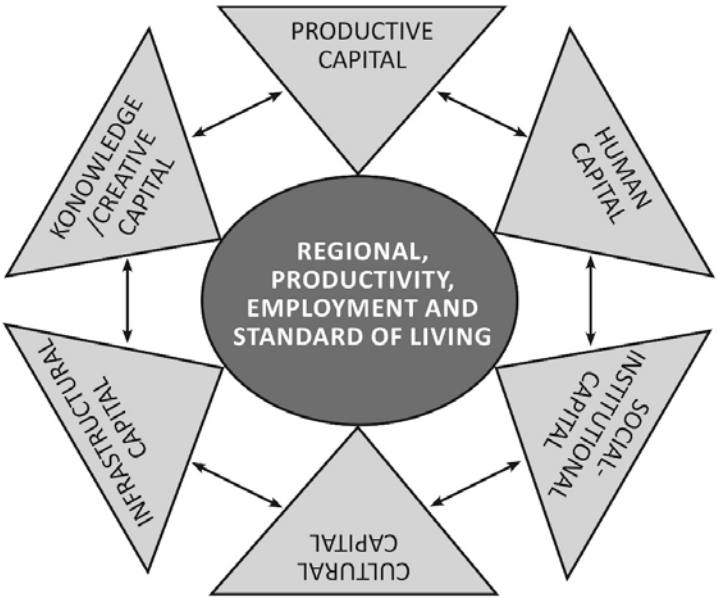
Endogenous theory states that dynamics of development of economy at the regional and state level largely determines the nature of vital characteristics of economic system, i.e. economic and developments strategies at state and local levels (Todaro & Smit, 2015). A great number of endogenous clarifications of economic development indicate the importance of presence of adequate institutional organisations (Cvetanović et al., 2015). Some state that "location of industry can be decisively significant in development of a region, thus cooperative results of sites are remarkable for technological and overall effects of spillover and new knowledge" (Dragičević, 2012, p. 20).

4. Most significant effects of endogenous theory of endogenous development for policy of improvement of local competitiveness

The consensus is achieved in local economy that the endogenous theory of growth is the most significant theoretical structure (Vazquez–Barquero, 2002). In 2008, the world crisis additionally accentuated this assessment (Jakopin, 2012).

The explanation of key factors of regional growth, by endogenous scientists creates an important shift when compared to the previous prevailing views of analysis of factors in regional economy. In shortest, the endogenous theory of regional growth records triple change of local developmental factors: "from factors of growth to elements of innovation, intangible 'hard' and 'soft' factors– local cooperation of protagonists, successful model of management, highly professional staff and the property established on knowledge, and transformation of functional into cognitive attitude" (Molnar, 2013, 49). The significant message of theory of endogenous growth related to the policy of regional development, and hence improvement of regional competitiveness refers to a redefined concept of capital as a factor of growth of productivity, employment and living standard at the regional level. In its elementary meaning, in addition to physical, a redefined concept of capital at the regional level includes human, social institutional, cultural, infrastructural and creative capital (Figure 2).

Figure 2. Factors of growth of productivity, employment and living standard of a region



Source: Kitson, et al., 2004. p. 995.

Endogenous theory includes staff, i.e. knowledge as a factor of growth with increasing returns, which means that investments in regions abundant with human resources are permanently stimulated. For that reason, the investments *per se* need not be directed to less developed regions in order to produce higher returns (Cvetanović et al., 2017). The regions wealthy with human capital thus acquire permanent competitive advantage in comparison to those with less human capital.

Endogenous theories of regional growth indicate the significance of interactions among people for transfer of knowledge, productivity growth and improvement of competitiveness. Due to this fact, the Lucas model was used as a base in the application of endogenous theory aimed at explaining regional size of economic growth (Roberts & Setterfield, 2010). Namely, direct interactions among people imply geographical vicinity, thus it can be concluded that the possibilities for knowledge transfer, geographically viewed, are the strongest at the regional level (Lucas, 1988). Supporting Lucas's point of view, other authors emphasise the difference in meaning of geographical area for information and knowledge (Puljiz, 2009, p. 27). While the price of knowledge transfer in contemporary conditions does not by a rule depend of spatial distance, the price of knowledge transfer grows with the increase of geographical distance, which is the result of the characteristic of knowledge to be best disseminated in the face to face contact and frequent communication. It follows that the potential benefit of the endogenous theory of development in the explanation of local competitiveness lies in hypothesis which states that knowledge transfer is regionally restricted and has a cumulative character. Interpersonal interaction, connected with the degree of education results in further growth of current and obtaining new staff. The expansion of the staff stimulates the growth of innovativeness and improvement of competitiveness. Herewith, the most competitive regions with the greatest level of human capital gain permanent advantage in innovativeness compared to less competitive regions. With their environment, unattractive for highly educated and innovative individuals (lower salary, poorer possibility of employment, weaker financial sources) less competitive regions can hardly develop their own innovation potentials (Puljiz, 2009).

Endogenous explanations try to reveal the manner how the forces on the market, conclusions of widespread policy, and various solutions created in institutions affect the modelling of local and state economic changes, i.e. try to clarify at satisfactory level the reasons of differences in local and state rates of economic growth (Todaro & Smith, 2015, p. 150). Transfer of innovations and knowledge, adaptable organisation of production and development of institutions and cities result in the rise of efficiency and standards of key performances of manufacturing system. Each of those mechanisms have a reverse effect on the growth of efficiency of capital accumulation at the regional level, by stimulating the expression of different externalities and decrease of transaction expenses thus

contributing to the growth of productivity and increase of rate of return (Vazquez – Barquero, 2002, pp. 16-17).

It is possible to find very important messages for the policy of improvement of competitiveness in Schumpeterian endogenous models of economic growth. These models imply the existence of a great number of individuals and enterprises which have the market force and realise monopoly profits. "In order to provide awards for the individuals whose activities create knowledge, other individuals have to be excluded from that knowledge, or at least from the use without compensation to the creator. The state performs it by establishing the "ownership right" over knowledge, i.e. it approves the patent which grants the exclusive right of knowledge use to the inventor in a limited period of time" (Stiglic, 213. p. 350). In these models, the category of technological changes equally leads to both losses and benefits by the mechanism of acting on elimination of old skills and old processes of production. Technological changes are led by the possibility of realisation of monopoly profit, and their realisation leads to replacement of existing companies and vanishing of their rents. Due to the effect of replacement, the enterprises which want to enter the market make increasing efforts in research, development and implementation of innovative processes. Greater motivation of companies for research and development can be explained by comparing the profit realised by the existing monopolist and the profit of a company which wants to enter the market (Acemoglu, 2008). Basically, it starts from the claim that the existing monopolist is less stimulated to deal with research and development, as well as the commercialisation of knowledge of innovation, in comparison to the companies on the competitive market, since the next innovation might threaten the existing profitable position. On the other hand, since the company on the competitive market realises null profit, it does not have to lose anything, so the enterprises which want to enter the market are more motivated for research and development.

The temporality of monopoly profit is explained by the impossibility of complete protection of property ownership over the innovation, whereby it should be borne in mind that some innovations are impossible to protect as patents. Due to expression of externalities, the right of property ownership gradually weakens, and hence the decrease of rent, until the level when the results of research are completely shared by all subjects on the market. Also, the competitive enterprises participate in the process of research and progress. Thus, new profitable products and processes are created, which reduce the market share of old products. In this case, the enterprises are not only motivated to finance research and advancement in favour of realisation of monopoly rent, but are also forced to do so due to mere survival on the market. It is the replacement of products with new ones and substitution of existing companies by the newly established that is the nucleus of creative destruction as an essential conceptual premise of Schumpeterian economic thought (Aghion & Howitt, 2009).

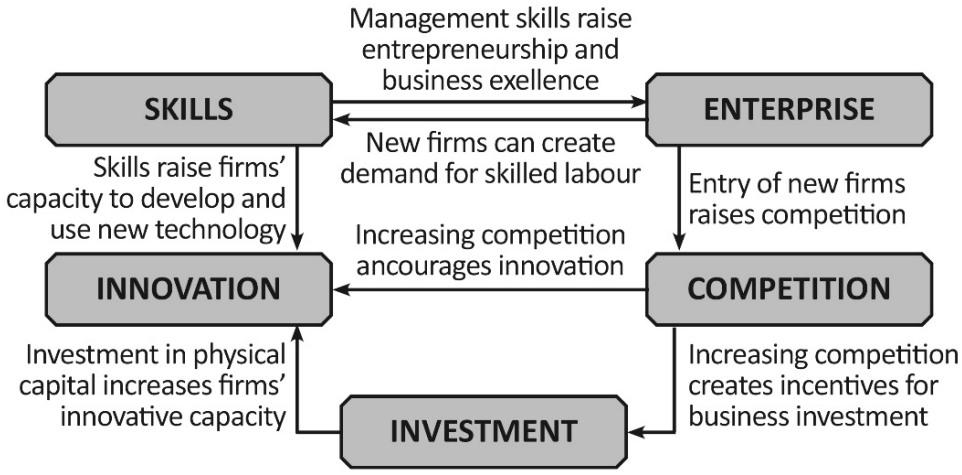
In the context of analysis of the above explicated theories of endogenous growth for the policy of improvement of competitiveness of regions, the concept of technological spillover is especially significant. In shortest, it is related to external results of economic actions which influence indirectly engaged subjects. The spillovers have positive and negative effects known in economic theory. Locally acquired knowledge, which can be used elsewhere (not directly in that specific), is an instance of positive influence. Pollutions are typically a negative example which influences those subjects that do not participate in production of the goods whose use and process of production create these pollutions.

Elementary retrospection of the literature which deals with significance of technological spillovers over the last thirty years has indicated the listed conclusions. First, not any unity of attitudes of economic analysts exists related to the issue of influence of technological spillovers on the economic growth of a region. Second, disagreements of certain theoreticians range from those who speak in favour of positive technological spillovers which have beneficial and highly pronounced effect on dynamics of local economic development, to the attitudes that spillovers are mainly negative in character. And third, recent research predominantly emphasises positive technological spillovers, with indisputably positive influence on the dynamics of progress of economy, although it can hardly be precisely quantified (Cvetanović & Leković, 2012).

Technological spillovers synergically stimulate the process of increase of values of regional manufacturing of goods and services, thus improving its competitiveness. In contemporary conditions of economic activities, technological spillovers are mostly related to pervading and propulsive character of the new, primarily information communicative technologies. Larger scope of shifts of new technological realisations to particular area shows more pronounced effect of spillover of knowledge, technology and productiveness, thus improving the competitiveness of the observed area (Antevski, 2008).

Economically advanced regions can improve competitiveness and create better standard of the population forever, while underdeveloped regions can always stay poor and insufficiently competitive. Supposing that public and private financing of professional staff create externalities and improvement of efficiency which recompense declining return factors, the endogenous postulates of development try to clarify the probability of long-term improvement of regional competitiveness (Figure 3).

Figure 3: The drivers of competitiveness of region



Source: Kitson, et al., 2004. p. 995.

In endogenous theory, the most significant source of growth is in the process of knowledge accumulation, i.e. in improvement of innovativeness.

5. Conclusion

In accordance with the messages of endogenous growth, key factors of improvement of regional competitiveness are research and development, the knowledge commercialised in innovations, entrepreneurship, and technological spillovers. Like conventional manufacturing factors, these components create new values at the regional level. They count on expression of external effects, i.e. enabling non-declining returns of productive factors at the regional level.

The policy of improvement of competitiveness of a region should be focused on the process of learning and support to accumulation of innovative goods, which provides synergy among protagonists, positive management and high level of individual assets social networks and knowledge based property, innovativeness, ideas, and quality of life increasingly replace cost effectiveness in the policy of improvement of regional competitiveness.

References

Acemoglu, D. (2008). *Introduction to modern economic growth*. Princeton University Press.

Aghion, P. & Howitt, P. (1992). A Model of Growth through Creative Destruction, *Econometrica* 60 (2), 323-51.

Aghion, P. & Howitt, P. (2008). *The economics of growth*. MIT press.

Annoni, P. & Kozovska, K. (2010). EU Regional Competitiveness Index 2010. European Commission, Joint Research Centre, EUR 24346.

Antevski, M. (2008). *Regionalna integracija u Evropi*. Beograd: M. Antevski.

Cvetanović, S., Ilić, V. & Despotović, D. (2017). Ljudski kaptal i endogeni razvoj regiona, *Teme*, 41 (1): 73-90.

Cvetanović, S., Filipović, M., Nikolić, M. & Belović, D. (2015). Endogenous growth theory and regional development policy. *Spatium*, (34), 10-17.

Grossman, G. & Helpman, E (1989). Comparative Advantage and Long Run Growth, Working Paper no. 2809. Cambridge, Mass.: NBER.

Dragičević, M. (2012). *Konkurentnost: Projekat za Hrvatsku*, Zagreb: Školska knjiga.

Jakopin, E. (2012). Post-crisis reallocation of growth factors. *Ekonomski horizonti*, 14 (2), 77–87.

Kitson, M., Martin, R. Tyler, P. (2004). Regional Competitiveness: An Elusive yet Key Concept?. *Regional Studies*, 38 (9), 991–999.

Krugman, P. (1994). Competitiveness: A Dangerous Obsession. *Foreign Affairs*, 73 (2), 28-44.

Lucas, R. (1988). On The Mechanics Of Economic Development. *Journal of Monetary Economics* 22, 3-42.

Martin, R. L. (2003). A study on the factors of regional competitiveness. *A draft final report for The European Commission Directorate-General Regional Policy, Cambridge: University of Cambridge*.

Mervar, A. (2003). Esej o novijim doprinosima teoriji ekonomskog rasta. *Ekonomski pregled*, 54 (3-4), 369-392.

Molnar, D. (2013). Regionalne nejednakosti i privredni rast: primer Srbije. *Doktorska disertacija, Univerzitet u Beogradu, Beograd: Ekonomski fakultet.*

Puljiz, J. (2009). Čimbenici regionalnog razvoja i regionalnih nejednakosti u Republici Hrvatskoj. *Doktorska disertacija, Sveučilište u Splitu, Split: Ekonomski fakultet*.

Roberts, M. & Setterfield, M. (2010). Endogenous regional growth: a critical survey. In Setterfield, M. (ed) *Handbook of alternative theories of economic growth*, 431-50.

Romer, P. (1990). Endogenous technological change. *Journal of Political Economy*, 98 (5, Part 2), 71-102.

Romer, P. (1987). Growth based on increasing returns due to specialization. *The American Economic Review*, 77 (2), 56-62.

Romer, P. (1986). Increasing returns and long-run growth. *Journal of political economy*, 94 (5), 1002-1037.

Stiglic, Dž. (2013). *Ekonomija javnog sektora*. Beograd: Centar za izdavačku delatnost Ekonomskog fakulteta univerziteta u Beogradu.

Todaro, M. & Smith, M. (2014). *Economic Development*. London: Addison-Wesley.

Vazquez-Barquero, A. (2002). *Edogenous Development*. Routledge.

Vuković, D. (2013). Model regionalne konkurentnosti: teorijsko-metodološka analiza i mogućnosti primene u Srbiji, *Doktorska disertacija, Univerzitet u Kragujevcu, Kragujevac: Ekonomski fakultet.*

UNAPREĐENJE KONKURENTNOSTI REGIONA U SVETLU PORUKA TEORIJE ENDOGENOG RASTA

Apstrakt: Konkurentnost regiona pokazuje njegovu sposobnost da generiše adekvatnu količinu izvoza, s jedne, i da obezbedi punu zaposlenost i kontinuirani rast prihoda stanovnika na regionalnom nivou, s druge strane. U tom kontekstu posmatrano, proizilazi da odlučujući činilac unapređenja regionalne konkurentnosti predstavlja rast produktivnosti lokalnih proizvodnih subjekata. Polazna premisa rada je stav da je za razumevanje prirode fenomena konkurentnosti regiona od primarne važnosti poznavanje osnovnih teorijskih postulata teorije endogenog rasta. Rad istražuje najvažnije poruke teorije endogenog rasta za politiku unapređenja regionalne konkurentnosti (rast ulaganja u obrazovanje, obuku, istraživanje i razvoj, to jest ulaganje u činioce koji odlučujuće doprinose komercijalizaciji znanja u inovacije). Cilj rada je da pokaže kako svaki od ovih mehanizama deluje na rastuću efikasnost akumulacije faktora ekonomskog rasta regiona, zahvaljujući ispoljavanju različitih eksternih efekata. Značaj istraživanja se ogleda u apostrofiranju zaključka pristalica endogenih objašnjenja rasta da do ekonomske konvergencije različitih regiona uopšte ne mora doći. Najjednostavnije rečeno, po njima, ekonomski napredni regioni mogu neprekidno unapređivati vlastitu konkurentnost i podizati životni standard stanovništva, dok ekonomski manje razvijeni regioni mogu takođe zauvek ostati siromašni i nedovoljno konkurentni. Ovo je ujedno i vrlo snažna poruka kreatora regionalnih politika.

Ključne reči: endogeni rast, konkurentnost, konkurentnost regiona, eksternalije, ljudski kapital, regionalna divergencija.

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