

The Role of Knowledge Process Outsourcing in Creating National Competitiveness in Global Economy

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The article deals with the qualitative new direction in achieving competitive advantage and/or core competence – outsourcing of knowledge process. Knowledge economy uses data as a raw material and transforms it using technology, analysis tools and human intelligence into knowledge and competence. Furthermore an aspect of national economy has been taken into the consideration and exposed as a background for the topic.

In most cases knowledge work is coupled with the work which resides in the area of corporate core competence or – at least – competitive advantages. Whereas to find and sustain the way to remain competitive versus the rivals has always been undoubted priority of business strategy. Thus the new prospect – knowledge outsourcing (KO) – emerges. Recently KO is seen as the highest growing business in the coming decade.

Knowledge services themselves fall into continuously expanding area with constantly growing demand. Knowledge outsourcing, unlike business process outsourcing that deals with executing standardized (“back-office”) processes, involves higher-end services which require advanced analytical and technical skills. Embracing technology as a driving force, knowledge outsourcing is changing the way businesses conduct themselves in the global marketplace. With an Internet connection and specialized skills, individuals and companies in the remotest ends of the earth are able to compete and collaborate in today’s global economy.

The constantly higher need for flexibility, significant reduction in time required to “go to the market”, increased competition in the global market and cost pressure have all been driving forces to move towards KO as to a wellspring for innovation of ability to manage the recourses. That is based on notion that knowledge creation is the raw material of innovation and is thus a major driver of competitive advantage.

Taking advantage of using the knowledge process outsourcing, national economy gets a highway leading to creation of better competitive position in the global arena. The comparative advantage model was taken into the consideration in exploiting the case. Furthermore, theoretical models concerning outcomes of knowledge process outsourcing were explored and sustaining empirical studies were employed to promote the topic. Thus the article reveals new prospects for national economies to take advantage of new competition ways in increasing its own competitive skills in the global scene.

Several different aspects of knowledge process outsourcing subject have been taken into account in the arti-

cle. Theoretical approach concerning the subject, gains from the process, backlashes and possible difficulty have been analyzed.

The two main parts of the topic are surveyed. Particularly these parts are: an effect of knowledge outsourcing on national economy and knowledge outsourcing as a source for creation of competitive advantage. The two parts are considered as an overall unit. Systemic and qualitative comparative analyses have been made to obtain the presentable findings. The results of the research suggest certain ways to gain competitive advantage for national economy using knowledge process outsourcing as a fundamental drive.

The objective of the article is to present a pattern and a perspective mode of national competitive advantages creation through engaging the knowledge process outsourcing.

Keywords: *competitiveness, global economics, knowledge, knowledge process, outsourcing.*

Introduction

The main goal of major part of economic activity runners is to maintain their competitiveness. Profit and even survival in the market depends on ability to create and implement cost cutting innovations, in reducing term for development of new products and their time to market, and furthermore, subsequently increasing capability to compete. Significant impact in creating background for such abilities to evolve is put by competitiveness of the home country. In terms of globalization every country is concerned to retain and increase its economy competitiveness, which is determined by set of different factors, such as indicators of infrastructure, macroeconomics, market effectiveness, innovations etc.

One of the most recent and innovative possibilities to increase competitiveness is to take advantage of employing the knowledge outsourcing. Lately, under fast development of technologies, favourable circumstances to implement such type of outsourcing and benefit from it (receive considerable economic gain) emerge. As this sphere of service sector is rather new, sufficient amount of respective theoretical and empirical researches is pending. There is a lot of literature on the subject of globalization. Outsourcing is widely examined as well. But there is not big range of researches or theoretical works concerning different aspects of knowledge outsourcing. Mostly consequences of service outsourcing (as part of outsourcing) are considered (Amiti et. al., 2004, Bhagwati et. al., 2004,

Geishecker et. al, 2004 etc.) or for knowledge management itself (Garicano, 2004, Jacob, 2006, Nonaka et. al., 2006 etc.), but only few works evaluate process of knowledge outsourcing (e.g. Gradwell, 2003, Antràs et. al., 2006). As importance of knowledge management is constantly growing, it is matter of big rationale to evaluate the particularities of knowledge management in terms of globalization and its benefit to economy, with national economies embodied.

The objective of this article is to present possibilities for national economy to improve its competitive abilities through implementation of knowledge outsourcing in terms of globalization. In order to reach this goal, systematical analysis of literature sources was performed and comparative analysis methods were employed.

In global economics (i.e. where competitiveness of certain participant of economy is defined by its competitive positions in the global market) it is important that competitiveness of national economy, as competitiveness of any other participant of economy, would be not only maintained in the certain sufficient level but also increased constantly.

National competitiveness of a county is commonly defined as its ability to provide high levels of prosperity to citizens. This in turn depends on how productively certain country uses available or potential recourses (especially – scarce recourses). Recently, knowledge economics, as further stage in economy development, is frequently taken into account.

The World Bank Institute offers a formal definition of a knowledge economy as one that creates, disseminates and uses knowledge to enhance its growth and development. A knowledge economy uses data as raw material and transforms it using technology, analysis tools and human intelligence into knowledge and expertise (Jacob, 2006). In this economy a continuum of agents with heterogeneous skills must choose how much knowledge to acquire and may produce on their own or in organizations (Garicano et.al., 2004).

This process is shown in Figure 1.

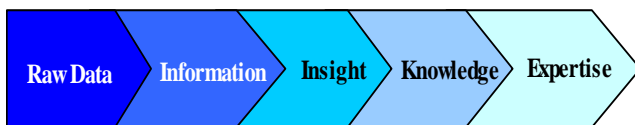


Figure 1. Knowledge creation process (Jacob, 2006)

Thus it is important to choose proper manner of managing particularly critical and intangible resource – knowledge (the term “knowledge” in the article stands for defining of real and potential abilities to perform particular activity). The more as core competence is usually considered to be the company’s collective knowledge about how to coordinate diverse production skills and technologies (Prahalad, Hamel, 1990). As knowledge recently becomes more and more sophisticated, only small part of companies in the world are able and have enough resources to manage or create knowledge (Corbett, 2005) of sufficient depth and width, that are necessary to maintain constant updating and implementation of innovation, which in turn is vital for survival of the company.

One of avant-garde possibilities to cope with this resource is to employ knowledge outsourcing (further in the text – KO). Outsourcing occurs when an organization transfers some of its tasks to an outside supplier (Siems, Ratner, 2003). It is obvious that relation between usage of outsourcing and increase of competitiveness is a matter of great relevance. Under the globalization, declining transaction costs were a crucial factor for increase in outsourcing (Groot, 2001). It is not necessary for company to dispose all essential resources, but it is imperative to have control over those resources, which are ultimate for core competence creation. Vertical disintegration is especially evident in international trade (Grossman, 2005). Usage of outsourcing allows significant reduction of costs. Therefore, taking advantage of innovations in technology, employment of KO creates qualitative new pattern of way to act and compete in the global market. It revalues relative power in the scene of global competition (Freeman, 1995) and the idea is strongly supported by recent huge focus put on the matter by companies in all over the world (Nonaka, Peltokorpi, 2006).

Usually outsourcing used to be employed to reach such goals as reduction of operational costs, giving out direct performance of auxiliary, non-core activities. But recently such activities of significant and strategic importance as procurement, creation of products, creation and development of innovations etc. are becoming the object of outsourcing. Knowledge creation relative activities (e.g. information processing, dissemination of knowledge, way of its implementation etc.) are not an exception. Thus KO becomes one of the main and crucial tools for company’s business management and development (Craumer, 2002). Furthermore, as demand for KO services increases, number of companies running this kind of business is increasing accordingly. In reference to data of year 2006, the global KO business was worth of \$2 billion in given year and was projected to reach \$16-17 billion level by year 2011 (A Kelly Service White Paper, 2006). While such optimistic projection may be not correct, there is no doubt that KO is going to be one of the fastest growing businesses in the coming decade.

Confederation of Indian Industry (CII) estimates that the global market for KO would grow at 46 % per year and will be of \$17 billion worth in 2010, when non-core business process outsourcing sector at the time would grow only 26 % per year (Jacob, 2006). Many economists estimate that roughly 100,000 white-collar jobs migrate overseas each year (Hilthenrath, 2004). Areas with significant potential for KO include pharmaceuticals, biotechnology, legal support services, intellectual property research, design and development for automotive, aerospace industries etc. The fact, that lack of investment in an area of expertise may early foreclose the future development in particular area, must be taken in the consideration too (Cohen, 1990).

KO, unlike business process (non-core activities) outsourcing (further in the text – BO) that deals with executing standardized processes, involves higher-end services which require advanced analytical and technical skills in certain activity sphere.

BO is commonly understood as the long-term contracting out of non-core business processes to an outside

provider to help achieve increased shareholder value. That saves precious management time and resources, allows focus while building upon core competencies. Meanwhile the objective of knowledge outsourcing is related to creation of core competence of the company – managing of intellectual property.

Yet it is fallacious to consider KO and BO as separate items. In opinion of some experts of economics, the current outsourcing of knowledge work is a new variant of the long history of outsourcing (Prahalad, 2005). It is obvious that in this sense, KO is complementary to the BO and not contradictory. Still this part of BO is exclusive regarding its qualitative new attitude concerning possibilities to implement outsourcing and benefiting from the process.

However, employment of KO, as one of the main sources for core competence creation, is not simple *ipso facto* it is hard, if not impossible, to measure it. Knowledge can be explicit (e.g. “know-how”) or tacit (for example, skills) (Gradwell, 2003). It is difficult, if not impossible, to transfer directly latter type of knowledge. Furthermore, the recognition of tacit knowledge and its importance has a number of crucially implications for company activities (Nonaka, 1995). Since one of the key conditions of outsourcing knowledge is to not allow it to fall into their disposition by a competitor, this raises the question of how the outsourcer should appropriate and control this vital asset. Furthermore, it is important to take other possible obstacles (such as choice and management of proper activity coordination mechanisms, pattern of created knowledge integration into the business activity etc.) into the consideration.

The importance of knowledge outsourcing employment for increase of national competitiveness is sustained by the fact that KO belongs to service sector, which is of increasing importance in comparison with the product sector.

The gain from employment of knowledge outsourcing is revealed by both theoretical models and empiric researches.

The simplest model, showing national economy’s benefit from KO is presented in Figure 2.

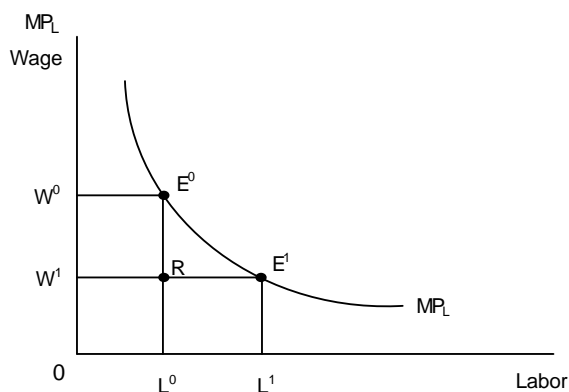


Figure 2. Gain from KO in one-good, two-production factors model (Bhagwati, 2004)

This model uses one (aggregate) final good and two factors of production – labor and capital. That is one

product/service model. With the fixed endowment of capital in the economy, labor and simultaneously wages are defined by the marginal product curve (MP_L). In the situation when knowledge outsourcing is not employed (by employing foreign employees in foreign companies), endowed labor is defined as L^0 , where wage for work is W^0 . The return to capital is the area under the MP_L curve and above the horizontal line W^0E^0 . After introduction of outsourcing (for example, demand for outsourcing was caused by improvement in technology and therefore emerged availability to get cheaper work force abroad), wages decline from W^0 to W^1 , accordingly total labor increases to amount of L^1 , and capital return is the area under MP_L curve and above line W^1E^1 . It is obvious that national economy gets gain, which is defined by triangular area E^0E^1R . Model shows that KO employment can benefit society as a whole, but also reveals loss, experienced by workers of the national market. This is one of the main arguments of opponents to outsourcing employment.

Other model takes international trade (with two final products/services) and differentiation of the work to qualified (skilled) and not qualified (non-qualified) into account. In this model, production of one good (import-competing) is more unskilled work intensive and production of the other good (export-competing) is more capital intensive. While skilled work is common factor for production of both products. This model is shown in Figure 3.

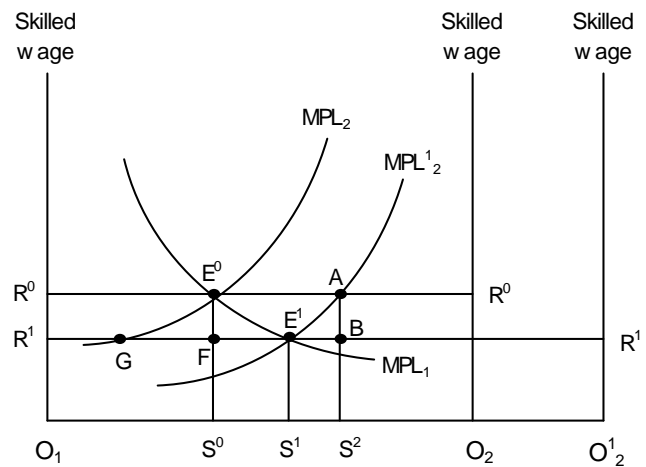


Figure 3. Gain from KO in two-goods, three-production factors model (plotted in reference to Bhagwati, 2004)

Axis O_1O_2 represents the total endowment of skilled labor in the economy, vertical axis – wage of qualified employees. Skilled labor employed in production of import-competing product is measured to the right from O_1 , labor that is employed in production of export-competing product is measured to the left from O_2 . MPL_1 and MPL_2 are marginal product curves for skilled labor in production of both goods respectively.

In the situation when outsourcing is not used, equilibrium is defined by point E^0 . Thus GDP can be measured by the sum of the areas under the curves MPL_1 and MPL_2 up to the vertical line S^0E^0 . When, for example, innovations allow purchasing labor abroad at a lower wage (R^1), new equilibrium point moves from E^0 to E^1 and addi-

tional labor supply is defined by $O_2O_1^2$. The output increase (in employing outsourcing) for the home country consists of the sum of two triangles E^0E^1F and E^1AB . The capital return increases due to decline of wages paid to skilled employees.

Besides, benefit from outsourcing can be explained by improvement in trade conditions. As manufacturing costs (and price subsequently) become lower, demand for the product/service increases and export volume increases accordingly. On the other hand, that can cause an over-supply situation. But in most cases, the result of knowledge outsourcing is the product that contains big additional value to customer. If the result of KO is creation of innovative, unique product (e.g. in pharmaceutical, aerospace industries), it can be sold at high price. Thus the value of export increases, i.e. *ceteris paribus* international trade conditions improve, and that in turn leads to improvement of welfare (increase in consumption etc.) of certain country citizens.

In case of KO employment, economic benefit can be obtained because it allows using such resources that under other circumstances (when KO is not or can not be used) cannot be used or can not be found in home country. For example, if manufacturing of certain product (supply of service) requires for specialized knowledge or specific equipment. In this case the result of employment of knowledge outsourcing can be even creation of unique (or qualitatively significant improved) product/service, which would lead to at least short run product monopoly and big profit.

In reference to Figure 3, wage received by skilled employees declines and unemployment rate increases due to KO employment. But it does not mean that the situation would necessarily remain like that (increase of unemployment) in the long run (Raynor, 2006). On one hand, there is possibility for workers to retrain (of course, its time and endeavour intensive). On the other hand, the result of employment of knowledge outsourcing can be even decrease of skilled workers' unemployment rate (Amiti, Wei, 2004; Head, Ries, 2002). For example, as knowledge development is a wellspring for creation of innovations, in employing KO (e.g., using specific resources that can not be found in home country), product, requiring strong intensity of skilled work, can be created. E.g., after qualitative improvement of particular product, specialists of certain skills would be needed for further manufacturing of the product (providing of the service). Increase in demand for certain employers has relevant impact on increase of wages. In opinion of Mann (2003), IT use and transformation of activities in new sectors, and job creation are mutually dependent. Furthermore, outsourcing even can be considered to have qualitatively similar effect on reducing the demand for unskilled relative to skilled labor within an industry as does skill-biased technological change (Feenstra, 1998). Hence, to estimate KO as exclusively beneficial or damaging for labor market of the country would not be reasonable.

The situation, where KO employment results not only in creation of new work places, but in transforming not competitive good to competitive one, can be observed. Such situation can be possible if, for example, labor (that is necessary for production of particular product / provi-

sion of service) costs in home country are so high that it is not beneficial to manufacture that product (provide service). KO allows taking advantage of cheaper skilled work force abroad, which leads to lower labor costs in such extent that in turn would lead to profitable manufacturing of the product (provision of the service).

Figure 3 shows that employment of knowledge outsourcing leads to reduction of operational costs and increase of capital return. Therefore increase in investment to various economy sectors is possible, rate of capital turnaround become faster.

Benefit from KO employment is obtained because of possibility to reduce the rate of business risk. For example, activity of particular company can be that of high rate of risk (due to its specific area of activity, e.g. creation of new pharmaceutical preparations). In that case, by using knowledge outsourcing, part of the business activity risk can be "transferred" to other country by contracting out the most risky business activities. Thus, higher rate of home country economy credibility can be maintained and home market remains attractive for foreign investors.

Similarly, higher rate of national economy stability is reached through emerged opportunities to reorganize organizational structure of the company in more flexible way. In case of need, in respect of changes in market, KO employment allows changing of company's organizational structure in short period of time. For example, if the situation in particular market changes, companies can adjust their structure accordingly by giving out non-profitable subsidiaries and to maintain ability to reach geographically wide-spread customer segments simultaneously.

On the whole, employment of knowledge outsourcing in global economy allows better allocation of resources, because it allows their usage in a proper place at the right time. In other words, companies, according to the particular business environment (e.g., geographical dislocation of their markets, analysis of customer requirements for the product/service etc.), can make optimal decision concerning choice of their contractors and that allows minimizing costs and time to market. An opportunity to maximize conceivable value to customer emerges (e.g., consulting services that are provided by contractors situated close to customers).

But, of course, aforesaid benefit from KO employment is possible as long as there are no significant means for limitation/regulation of free international trade or other distorting tools employed.

Besides of these models, benefit from KO can be showed by employing model of comparative advantage. There are obvious evidence that by being able to geographically segment activities, multinational companies lead to more concentration of knowledge-capital production in the skilled-labor-abundant countries and more concentration of unskilled-labor-intensive production (services) in unskilled-labor-abundant countries (Markusen, Venables, 1999). Diversification of product is important to the results of company performance in terms that it reduces business risk, allows to reach wider market, adds bigger value to customer etc. Therefore companies often choose this strategy, even if production of

some products (provision of particular service) is not profitable or is even cause loss. In employing diversification, total costs increase significantly. Taking comparative advantage – comparison of ratios between prices and costs of manufactured products (services) – into account, it is possible to arrange all products in descending/ascending manner according to their profitability. By employing outsourcing, opportunity for company to get products/services at lower prices, emerges. The shedding of less competitive operations induces stronger competitive positions in world market (Arndt, 1997). Thus double benefit is received – business is running at lower costs and wide assortment of products/services is being supplied to market. In this case outsourcing becomes the main factor to maximize the profit (MacKenzie, 2006). Application of knowledge outsourcing gives even greater opportunity for company to reduce its costs, because employment of KO allows cutting costs even for the most competitive (in comparison with the others products produced or services provided by company) products/services. Furthermore, non-beneficial products can be “transformed” to beneficial ones (or at least more competitive) by taking advantage of KO. Therefore companies should take good consideration of employing KO and taking advantage of it (increasing their competitiveness) in performing their business.

The outcomes of these theoretical models are sustained by empirical researches. For example, according to the empiric research performed by I. Geishecker and H. Görg (2004), in country widely employing international outsourcing rate of the real wage of unqualified workers decreases approximately by 1.8 %. Accordingly, wage of skilled workers increases approx. by 3.3 %.

Another empiric research concerning outcomes of service outsourcing employment explored its impact on wages of skilled and unskilled workers, consumption level and international trade in global economy (Antràs *et al.*, 2004). After the evaluation of closed and opened economies, differences in wages in different countries, circumstances for outsourcing employment, impact of globalization on outsourcing employment, it was resumed that globalization and outsourcing employment determines reallocation of skilled and unskilled labor respectively to demand for the respective labor in the country. The result of the research showed that the extent of knowledge outsourcing employment is directly relevant to development of communication technologies. Another research showed that a fall in trade costs in the process of globalization causes more outsourcing and also increases the relative wage of skilled workers (Gao, 2002). Similarly, there are empiric evidences that an increase in investment in computers and R&D simultaneously reduces the demand for unskilled workers and increases the demand for skilled workers (Morrison-Paul, Siegel, 2001).

The results of similar empiric researches analyzing the impact of service outsourcing on national economy showed that, on the whole, this kind of outsourcing is has positive effect on terms of national trade, production capacity, economic welfare etc.

Hence results of empiric researches confirm theoretical assumptions regarding benefit received from employment of KO and experienced by both separate par-

ticipants of economy and national economies. Thus it is right to say that, under conditions of globalization, knowledge outsourcing is important factor creating possibility to improve competitiveness of the country.

Conclusions

As rates of globalization proceed to grow and competition becomes more intensive, it is crucial for every country to find ways to maintain and increase its ability to compete. One of the latest means is knowledge outsourcing. Knowledge development is a wellspring for innovations, and simultaneously an important factor for core competence creation.

The conception of knowledge outsourcing presents qualitatively new attitude concerning pattern of competitiveness improvement, which includes receiving (by using knowledge outsourcing) knowledge instead of the products. By employment of outsourcing, the innovative way to manage the strategically important functions of company emerges. The prospective of the method is sustained by the fact that the participants of the global economy recently pay more attention to trade in services instead of trade in products.

As employment of knowledge outsourcing is obviously beneficial for national economy, it is important to evaluate the possibility to improve competitiveness through employment of this kind of outsourcing. First of all, it is reasonable to promote the employment of KO in the activities of national economy participants (e.g., by implementing different means of information, consulting services etc.). In this case, not only foreign, but potential national contractors must be taken into the consideration. That is because, in any case, lower costs and increased competitiveness of the products/services in the global market will be observed as an outcome of outsourcing employment. In case of foreign contractors, it is important to evaluate the possibilities given by global market to reduce costs in choosing proper contractors.

On the other hand, in terms of globalization, countries abundant in relatively cheaper labor and with big potential for knowledge development have an opportunity to improve their competitive positions significantly in supplying such services. Thus it is also important to evaluate available abilities to supply (provide) knowledge development services.

Still, in employing knowledge outsourcing, it is essential to foresee possible threats, such as loss of information. Therefore different business activity coordination and control mechanisms are created and applied.

Generally, in conformity with the theoretical models and empirical researches concerning impact of outsourcing employment on national economy, it can be stated that employment of knowledge outsourcing is effective mean to improve competitiveness of the national economy.

References

1. Antràs, P. Outsourcing in a Knowledge Economy / P. Antràs, L. Garicano, E. Rossi-Hansberg // *The Quarterly Journal of Economics*, February, 2006.
2. Amiti, M. Fear of service outsourcing: is it justified? / M. Amiti, S-

- J. Wei // IMF Working Paper WP/04/186, October 2004.
3. Ardnt, S.W. Globalization and the Open Economy // North American Journal of Economics and Finance, 1997, 8 (1), p. 71-79.
 4. Bhagwati, J. The Muddles over Outsourcing / J. Bhagwati, A. Panagariya, T. N. Srinivasan // Journal of Economic Perspectives, 2004, Vol. 18, No 4, p. 93-114.
 5. Cohen, W.M. Absorptive capacity: a new perspective on learning and innovation – Technology, Organizations, and Innovation. // Administrative Science Quarterly, March, 1990.
 6. Corbett, M.F. IAOP: launching a New Breed of Outsourcing Professionals // International association of outsourcing professionals, 2005.
 7. Craumer, M. How to Think Strategically About Outsourcing // Archive of Harvard Business School, 2002. <http://hbswk.hbs.edu/archive/3022.html>
 8. Feenstra, R.C. Integration and Disintegration in the Global Economy // Journal of Economic Perspectives, 1998, p. 31-50.
 9. Freeman, R. B. Are your wages set in Beijing? // Journal of Economic perspectives, 1995, 9 (3), p. 15-32.
 10. Garicano, L. Inequality and the Organization of Knowledge / L. Garicano, E. Rossi-Hansberg // American Economic Review, 2004, p. 197-202.
 11. Geishecker, I. International outsourcing and wages: Winners and losers. / I.Geishecker, H. Görg // 2004
 12. <http://www.etsg.org/ETSG2004/Papers/Geishecker.pdf>.
 13. Gao, T. Outsourcing and Wage Inequality in a Simple Economic Geography Model. // Working Paper, Department of Economics University of Missouri, 2002.
 14. Gradwell, T. Outsourcing knowledge creation: don't give the game away // Speciality Chemicals Magazine, 2003, p. 24-25.
 15. Groot, H.L.F. Macroeconomic Consequences of Outsourcing // De Economist Journal, Vol. 149, No 1, March, 2001, p. 33-51.
 16. Grossman, G.M. Outsourcing in a Global Economy / G.M. Grossman, E. Helpman // Review of Economic Studies 72, 2005, p. 135-159.
 17. Head, K. Offshore production and skill upgrading by Japanese manufacturing firms / K. Head, J. Ries // Journal of International Economics, 2002, 58 (1), p. 81-105.
 18. Hilthenrath, J.E. Behind Outsourcing Debate: Surprisingly new hard numbers // Wall Street Journal, April 12, 2004.
 19. Jacob, K. K. Why India can be global knowledge economy leader [2006-11-11]. www.rediff.com/money/2006/nov/11guest.html
 20. Knowledge Process Outsourcing (KPO) – An Emerging Opportunity // A Kelly Service White Paper, 2006.
 21. Markusen, J.R. Multinational production, skilled labor, and real wages / J.R. Markusen, A.J. Venables // Richard Baldwin ed. Cambridge University Press. 1999.
 22. MacKenzie, S. Outsourcing: The Economic Model of Comparative Advantage // Recharger Magazine, 2006, p. 71-79.
 23. Mann, C.L. Globalization of IT Services: and White Collar Jobs // Institute for International Economics, Policy Brief PBO 3-11, 2003.
 24. Morrison-Paul, C.J. The Impacts of Technology, Trade and Outsourcing on Employment and Labor Composition / C.J. Morrison-Paul, D.S. Siegel // Scandinavian Journal of Economics, 2001, 103 (2), p. 241-264.
 25. Nonaka, I. The Knowledge-Creating Company: How Japanese companies Create the Dynamics of Innovation // Oxford University Press. 1995.
 26. Nonaka, I. Objectivity and Subjectivity in Knowledge Management: A Review of 20 Top Articles / I. Nonaka, V. Peltokorpi // Knowledge and Process Management, Vol. 13, No 2, 2006, p. 73-82.
 27. Prahalad, C. K. WSJ: The Global Art of Outsourcing // The Wall Street Journal, 2005.
 28. http://www.thenextpractice.com/news/wsj_the_global_art_of_outsourcing.php
 29. Prahalad, C.K. The Core competence of the Corporation / C.K. Prahalad, G. Hamel // Harvard Business Review, May-June, 68, 3, 1990.
 30. Raynor, W. Outsourcing Jobs Off-Shore: Short and Long-Term Consequences // BraveNewWorkWorldNews, 2006.
 31. Siems, T.F. Do What You do Best, Outsource the Rest? / T.F. Siems, A.S. Ratner // Federal reserve bank og Dallas, Southwest Economy, November/December, 2003.
- Vytautas Snieška, Aura Drakšaitė
- Žinių išorandos vaidmuo šalies konkurencingumo didinime globalioje ekonomikoje**
- Santrauka
- Globalioje ekonomikoje konkurencijai tampant vis intensyvesnei, ekonomikos dalyviai nuolat ieško optimalių veiklos vykdymo būdų, leidžiančių pasiekti norimų rezultatų, nuolat keičiasi įmonių veiklos vykdymo būdas, kinta verslo vykdymo koncepcija.
- Pagrindinis daugumos ekonomikos dalyvių tikslas yra išlikti konkurencingiems. Pelnas ir netgi išlikimas rinkoje priklauso nuo sugebėjimo kurti ir pritaikyti kaštus mažinančias inovacijas, drauge sutrumpinant prekės kūrimo ir jos pateikimo į rinką laiką bei padidinant galimybes sėkmingai konkuruoti. Tam didelę įtaką turi šalies, kurioje veikia įmonė, konkurencingumas. Globalizacijos sąlygomis kiekvienai šaliai svarbu didinti savo ūkio konkurencingumą, nustatant įvertinant infrastruktūros, makroekonominis, rinkos veiksmingumo, inovacijų ir kt. rodiklius.
- Todėl, siekiant prisitaikyti prie dinamiškos verslo aplinkos ir nuolat kintančių joje verslo sąlygų, būtina taikyti tokias veiklos vykdymo (valdymo) priemones, kad įmonių konkurencingumas būtų ne tik palaikomas, bet ir būtų sudaromos sąlygos įgyti konkurencinį pranašumą (ar bent išlaikyti turimus konkurencinius privalumus).
- Viena tokių priemonių – išorandos taikymas, suteikiantis galimybę gauti naudą „iš išorės“. Pastaraisiais metais plačiai kalbama apie žinių ekonomiką (kur žinių vystymas, sklaida bei taikymas yra pagrindiniai ekonomikos plėtros veiksniai) kaip apie naują ekonomikos raidos etapą.
- Žinių ekonomikoje, pagrindinis įmonės turtas yra nematerialus (kūrybingumas, žinios, kompetencija, darbuotojų motyvacija ir pan.), taigi informacinėje ekonomikoje žinios yra vertė vartotojui kuriantis veiksnys. Todėl labai svarbu pasirinkti tinkamą būdą šiam veiksmui valdyti. Tačiau žinioms tampant vis sudėtingesnėms, tik nedaugelis įmonių pasaulyje turi pakankamai išteklių pačioms valdyti arba kurti pakankamo pločio ir gylio žinių, reikalingų nuolat atnaujinti ir vykdyti inovacijų kūrimo (taikymo) procesą, kiekį. Kita vertus, organizacijai nebūtina pačiai turėti visų jai reikalingų išteklių, tačiau būtina kontroliuoti tuos išteklius, kurie yra konkurencinio pranašumo kūrimo šaltinis. Vienas inovatyviausių būdų – žinių išorandos taikymas.
- Žinių išoranda, priešingai negu nepagrindinių įmonės veiklos funkcijų išoranda, kuri paprastai apima standartizuotas veiklos dalis, yra susijusi su vertės vartotojui kūrimo veiklomis, esančiomis vertės kūrimo grandinės pabaigoje. Tokiai veiklai vykdyti reikia atitinkamos srities specifinių žinių bei itin gerų įgūdžių ir sugebėjimų. Žinių išorandos objektas siejamas su pagrindiniu konkurencinio pranašumo kūrimo veikla – intelektualine nuosavybe.
- Žinių išorandos reikšmę ekonomikos dalyvių konkurencingumui didinti lemia ir tai, kad tai – paslaugų sektorius, tampančio vis svarbesniu, palyginti su prekių sektoriumi, dalis. Dėl greitesnių pinigų apyvartos, didesnės naudos vartotojui sąlygojamo didesnio pelno gavimo bei panašių priežasčių, vis daugiau įmonių orientuojasi į paslaugų sektorių.
- Taigi straipsnyje nagrinėjama kokybiškai nauja konkurencinio pranašumo kūrimo kryptis – žinių išoranda. Su žinių vystymu susijusių paslaugų sektorius nuolat ir sparčiai plečiasi, nepaliaujamai didėja šių paslaugų paklausa. Nuolatinis poreikis lanksčiai vykdyti įmonės veiklos vykdymo strategiją, ryškus prekės pateikimo rinkai laikotarpio sutrumpinimas, intensyvjėjanti konkurencija globalioje rinkoje ir kaštų mažinimo politika yra pagrindiniai veiksniai, lemiantys žinių išorandos taikymą kaip išteklių valdymo būdo tobulinimo šaltinį. Žinių išorandos taikymo dėka sukuriamos geresnės šalies konkurencinės pozicijos pasaulinėje rinkoje.
- Straipsnio tikslas – atskleisti šalies konkurencingumo didinimo globalioje ekonomikoje galimybes taikant žinių išorandą.
- Straipsnio tyrimo sritį sąlygiškai sudaro dvi pagrindinės dalys. Pirmojoje dalyje atskleidžiama žinių išorandos taikymo įtaka šalies ekonomikai. Antroje dalyje žinių išoranda įvertinama kaip konkurencinio pranašumo kūrimo šaltinis. Siekiant parodyti šalies konkurencingumo didinimo globalioje ekonomikoje galimybes, šios sritys nagrinėjamos integruotai. Tyrimo rezultatai atskleidžia keletą konkrečių būdų, leidžiančių padidinti šalies konkurencingumą taikant žinių išorandą.

Žinių išorinaudos teikiama nauda šalies ekonomikai atskleidžiama keletu modelių, nagrinėjančių žinių išorinaudos taikymo pasekmes šalies ekonomikai, užimtumo, investicijų lygio bei kai kurių kitų rodiklių kaitai. Paprasčiausias modelis, parodantis žinių išorinaudos taikymo naudą šalies ekonomikai – vienos prekės, dviejų gamybos veiksmų modelis. Kitas modelis įvertina tarptautinę prekybą (esant dviem galutinėms prekėms) bei darbo skirstymą į kvalifikuotą ir nekvalifikuotą. Be šių modelių, pateikiamas ir palyginamojo pranašumo modelis, įvertinantis žinių išorinaudą kaip pagrindinį pelno maksimizavimo veiksnį.

Šių pasekmių įvertinti vienareikšmiškai neįmanoma. Išorinaudos teikiama nauda galima paaiškinti tuo, kad pagerėja šalies prekybos sąlygos dėl prekės (paslaugos) gamybos (teikimo) kaštų mažėjimo, tačiau gali būti sukuriama per didelė prekės pasiūla. Vis dėlto, jei žinių išorinaudos taikymo rezultatas – inovatyvios, uniklios prekės gamyba, prekės eksporto vertė išauga, t.y. pagerėja šalies tarptautinės prekybos sąlygos, o tai lemia atitinkamos valstybės gyventojų gyvenimo lygio kilimą.

Ekonominė nauda patiriama ir todėl, kad žinių išorinauda taip pat leidžia pasinaudoti tokiais išteklių, kokių galbūt negalima rasti šalies viduje. Kitas svarbus veiksnys – darbo užmokestis. Šiuo atveju sunku įvertinti žinių išorinaudą kaip naudingą ar žalingą šalies darbo rinkai, nes yra persikvalifikavimo galimybė, žinių išorinaudos taikymo pasekmė gali būti netgi kvalifikuotų darbuotojų nedarbo lygio sumažėjimas, kokybiškai patobulinus prekę, jos vėlesnei gamybai reikia tam tikros srities specialistų ir pan.

Straipsnyje įvertinamas ir žinių išorinaudos taikymo poveikis atskirų prekių konkurencingumui, kapitalo formavimo spartai, verslo rizikos valdymui, įmonių organizacinės struktūros kaitai ir pan.

Tačiau apskritai globalioje ekonomikoje žinių išorinaudos taikymas leidžia geriau panaudoti turimus išteklius, nes suteikia galimybę panaudoti juos tinkamoje vietoje, tinkamu laiku. Kitaip sakant, įmonės, atsižvelgdamos į savo veiklos vykdymo strategiją (pvz., vartoto-

jų geografinį išsidėstymą, jų poreikių analizę), gali priimti geriausią sprendimą, įvertinantį rangovų geografinės vietos parinkimą bei suteikiantį galimybę minimizuoti prekės pateikimo į rinką laiką. Atsiranda galimybė maksimizuoti pridėtinę vertę vartotojui.

Darbe taip pat pateikiama kai kurie iš mokslinės literatūros empirinių tyrimų, atliktų siekiant išsiaiškinti žinių išorinaudos taikymo pasekmes šalies ekonomikai, įvertinančių skirtingus konkurencingumo lygį veikiančius veiksnius bei patvirtinančių (arba iš dalies patvirtinančių) teorinius modelius. Empirinių tyrimų rezultatai patvirtina teorines prielaidas, susijusias su žinių ekonomikos teikiama nauda ekonomikos dalyvių veiklai, o kartu ir atskirų šalių ekonomikos. Todėl galima teigti, kad globalios ekonomikos sąlygomis žinių išorinauda yra svarbus veiksnys, sukuriantis galimybę padidinti šalies ekonomikos konkurencingumą.

Taigi žinių išorinaudos koncepcija atskleidžia kokybiškai naują požiūrį į konkurencingumo didinimo būdą, kai išorinaudos būdu įsigyjama ne prekių, bet žinių. Pasitelkiant išorinaudos taikymą, pereinama prie inovatyvaus strategiškai svarbių įmonės veiklos funkcijų valdymo. Kadangi žinių išorinaudos taikymas akivaizdžiai naudingas šalies ekonomikai, būtina įvertinti šalies konkurencingumo didinimo galimybes taikant šį išorinaudos tipą, tarkim, skatinant žinių išorinaudos taikymą šalies ekonomikos dalyvių veikloje, išnaudojant turimas galimybes teikti žinių vystymo paslaugas ir pan.

Tačiau taikant žinių išorinaudą būtina įvertinti ir galimas grėsmes, pavyzdžiui informacijos nutekėjimą. Tam kuriami bei taikomi įvairūs veiklos koordinavimo ir kontrolės mechanizmai.

Apskritai, remiantis teoriniais modeliais bei empiriniais išorinaudos taikymo įtakos šalių ekonomikai tyrimais, galima teigti, kad žinių išorinaudos taikymas yra efektyvi šalies ekonomikos konkurencingumo didinimo priemonė.

Raktažodžiai: *konkurencingumas, globali ekonomika, žinios, žinių vystymas, išorinauda.*

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