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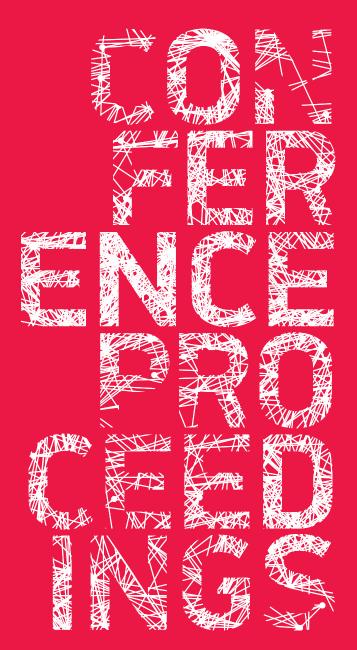## 3RD INTERNATIONAL ACADEMIC CONFERENCE ON PLACES AND TECHNOLOGIES

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PLACES AND TECHNOLOGIES 2016

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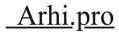www.beograd.rs

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URBAN MOBILITY, TRANSPORT AND TRAFFIC SOLUTIONS

THE ROLE OF COGNITIVE-CULTURAL ECONOMY IN CITY'S GLOBAL POSITIONING[1]

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ABSTRACT

Transition to post-Fordist economy and knowledge society has intensively influenced ways cities compete and position in global hierarchy. In Fordist cities competitive advantage was coming from its industry value. In globalization position of cities in urban hierarchy was a result of concentration of globally important cooperations, highly specialised services and international organizations. The 21st century brought new shift. The concentration of knowledge, innovation, talent and educated people in the city are primary determinants of its global competitiveness. Growth and strength of leading cities is deriving from highly developed cognitive-cultural economy.

Cognitive-cultural economy presents groups of industries and occupations that require deductive reasoning capacities, technical knowledge, cultural skills and visual imagination, such as high-technology industries, business and services (especially ITC) and cultural industries bond with technology (especially games, film and media). Cognitive-cultural economy is intensely concentrated in cities, especially in the top cities of global urban hierarchy, contributing to city's wealth and position.

Cognitive-cultural economy is not equally present in cities, not even in all cities at the top of the global urban hierarchy. It has boomed in some cities and enhanced their global position, and in others is present only as support for financial and service sectors. The paper will try to investigate what is it that contributes to the cognitive-culture economy development in cities. Does amenities and special atmosphere of the city that attract creative people contribute to cognitive economy, or does clustering of companies, or social networks and jobs opportunities? The paper aims to assume cognitive-cultural development stimulation methods, which can influence city's global position.

Keywords: cognitive-culture economy, global urban hierarchies, post-Fordism, position, competitiveness

INTRODUCTION

Changes in the last two decades of the twentieth century induced by digital technology revolution and expanding global economical and social networks have reshaped economies and organization of many cities (Kloosterman, 2010). Some cities raised their importance in the new economy; some have lost their competitiveness benefits. New conditions transformed global urban hierarchies and ways cities compete for their position. Traditional factors, such as infrastructure, geographical position, natural resources and industries, important in the Fordist period, became obsolete. Enhancement of information, knowledge, innovation and creativity took prime position in city's global repositioning and resurgence, making the concentration of international corporations and highly specialised services insufficient. Cognitive-cultural economy came at the forefront of the city positioning in global urban networks of 21ˢᵗ century and third wave of urbanisation (Scott, 2014).

The new economy started to emerge somewhere between 1980s and 1990s, with the transfer from Fordism to post-Fordism. Distinctive group of highly specific advanced services, knowledge intensive industries and cultural production sectors moved to the front of city economic development. In the recent years culture, creativity and economy fuse together more evidently in the commodity form. It could be said that world is entering in the next stage of capitalism that could be called cognitive capitalism (Moulier-Boutang, 2007) or cognitive-cultural economy (Scott, 2007). Cognitive-cultural economy presents groups of industries such as high-technology industries, business and services (especially ITC) and cultural industries bond with technology (especially games, film and media).

Cognitive-cultural economy is intensely concentrated in cities, especially in the top cities of global urban hierarchy, contributing to city's wealth and position through two aspects: directly as the growing economy with high-value creation and indirectly through dissemination of know-how, innovation and provision of cognitive tools to wide spectrum of other sectors. Some cities introduced methods to boost cognitive-cultural economy. Methods differ, starting from development of amenities and special atmosphere in the city that attract creative people (Florida, 2002, Landry, 2000, Jacobs, 1969), clustering of companies (Scott, 2007), generation of job opportunities, or investment in educational and research institutions.

THE COGNITIVE –CULTURAL ECONOMY

Concept of cognitive-cultural economy developed as a reaction to inability of post-Fordist theory to comprehensively explain changes in present urban economy and life. Post-Fordism "has the disadvantage of expressing itself only by what it is not, whereas the later has the advantage of positively reflecting the foundations of much contemporary economic activity – above all in the more advanced centres of capitalism.." (Scott, 2014, p.570). Cognitive-cultural economy "shapes the peculiar logic of learning, creativity and innovation that are observed in cities today but also has many wider and deeper impacts on urban outcomes. It has important policy implications..." (Scott, 2014, p.565). It consists of sectors and occupations that require deductive reasoning capacities, technical knowledge, cultural skills and visual imagination. Leading sectors are "technology-intensive manufacturing, services of all varieties (business, financial, personal), fashion-oriented neo artisanal production, and cultural-products industries" (Scott, 2007, p. 1467). Cognitive-cultural economy consists of ICT, R&D-intensive industries, information-processing industries (such as financial services), knowledge-intensive service sectors, design, media, art, architecture, marketing and tourism (Davis and Mills, 2014).

Cognitive-cultural economy has specific labour and spatial characteristics. It is based on flexible employment organization, which often consists of temporary teams created from high-professionals for the purpose of the particular project. "In terms of working relation, this means an increase of self-employment and new forms of de-standardised work, flexible working times, contracts by projects" (d'Ovidio and Pradel, 2013, p.70), often change of employers and

discontinuous careers. As a result of specific labour organization the personal social networks make the crucial element of personal career, so presence in the area of intense cognitive-cultural economy, such as major cities, is important. This influences the intense spatial concentration of cognitive-cultural workers and companies and creation of sector specific clusters (Scott, 2012) in the region and in the city.

POSITIONING OF CITIES IN GLOBAL URBAN HIERARCHIES

According to military power cities in the antique period were somewhat hierarchically organized. In Fordist economy national importance and commercial and economic connections with other cities were determining city position. Globalisation produced new urban hierarchy, notably different and redefined in the last 40 years (Alderson, 2010). Involvement in global flows of capital, information, knowledge and people, involvement in global networks became the element that determines the importance and power of city (Simeuncevic and Mitrovic, 2011). Factors that contribute to the city position in global urban hierarchy[3] are complex starting from concentration of offices of leading international corporations, highly specialized services and international organization, to flow of people and information.

The first complex global urban hierarchy was created by John Friedmann in 1995, where cities were ranked according to concentration of head-offices of multinational corporations of financial and business services. Friedmann's global hierarchy was based on the attributes of the cities. Urban hierarchy created by Smith and Timberlacke (1995) brought ranking methodology based on intercity relations within global networks. They used flow of people, products and information as the basic data for ranking. GaWC (Globalisation and World City) group, as a leading research organization for urban hierarchies is a producer of most comprehensive global urban hierarchies. GaWC groupe uses the data on cooperation of offices of 100 leading transnational corporations, from consulting, advertising, marketing and finance, between paired cities, for annual ranking of cities.

The 21st century brought shift in research of global urban hierarchies. A set of data was widened from analysis of headquarters of international corporations to analysis of concentration of knowledge, innovation and talented and educated people in the city is primary determining its global position. Change is associated with the different understanding of leading sectors of world economy. As one of the most important elements of city power in the global system are recognized knowledge, creativity and innovation capacities. For instance, Richard Florida (2002) uses the concentration of creative people as element for city ranking. For Florida concentration of creative class is most important element of city global competitiveness and wealth. Global Innovation Agency (2008) created Innovation City Index, which presents leading classification and ranking of cities according to their potential for innovation, creation, implementation and communication of ideas in urban economy. The data set includes cultural assets, human infrastructure and networked markets. New methodologies for ranking of cities in global hierarchies return the importance of city place qualities and human capital, not only their economy.

THE ROLE OF COGNITIVE-CULTURAL ECONOMY IN CITY'S GLOBAL POSITIONING

Principal sites of cognitive-cultural economy are cities, especially top global cities (Scott, 2008). Cognitive-cultural economy is not present in all cities, not even at the top of the global urban hierarchy. Some cities have entered this phase of development and have directed their urban and economic policies towards cognitive-cultural economy, some have not. Cognitive-cultural

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[3]Global urban hierarchy in this paper is regarded in coloration to theory of Friedmann (1986), Sassen (1991) and Beaverstock et al. (1999), as a ranging of cities in accordance to concentration of economic, political and social control function of global networks.

economy has started to rise in many smaller cities and had impact on enhancement of their global position. On the other hand, in many cities it is present only as the support for financial and service sectors, not contributing to the overall competitiveness.

Importance of cognitive-cultural economy for city's global positioning

Importance of innovation and creative productivity of city for its development and wealth is well known. Jane Jacobs (1984) connects city strength and position with its capability to produce ideas, or as she defines it, to conduct import-replacement cycle. Through import- replacement cycle cities stop import, start producing for their needs and come to export their own products. Without this process cities are condemned on stagnation and decline. It is more important that cities have human potential for innovation, knowledge and creativity than having available natural resources and the newest infrastructure.

Charles Landry and Richard Florida have further developed the idea of creative people importance for city positioning. Landry (2000) stresses the importance of creative potential of all people in the city, especially the governance, for solving challenges that city faces. The ability of city governance to use knowledge and be innovative in problem solving is the precondition for the city to adequately response to globalization and new cognitive capitalism. Florida (2002) asserts that creative class (or highly-educated workforce) is the most important for city global position. Florida through development of his creative index proves that city position in global networks is in correlation with presence of 3Ts (technology, talent and tolerance) in the city. On the other side, Krätke (2012) claims that scientific/technological occupations have the strongest impact on city economic growth and global urban positioning, followed by artistic occupations, basing his claims on the research of employment in different sectors.

"(S)ignificant elements of the sphere of productive activity today thrive on scientific inputs, continuous innovation, product multiplicity and differentiation, the provision of customized services, symbolic elaboration, and so on" (Scott, 2008, p. 64). The biggest concentration of knowledge and creative intensive sectors is evident in the cities at the top of the global urban hierarchy (such as New York, London, Los Angeles, Paris and Tokyo), proving that in the cognitive-cultural economy has significant impact on city global positioning. Cognitive-cultural economy "is both firmly anchored in specific places and a very insistent element of the global economic order at large" (Lorenzen, Scott and Vang, 2008, p.590). Although it has crucial importance for city position it is not exclusively related to top global cities. Cognitive-cultural economic growth offers a route towards global city status that is not dependent on sheer size. Promoting the urban cognitive-cultural economy signals competitiveness and attractiveness because it represents the leading edge of production and consumption (Davis and Mills, 2014, p.19). Cognitive-cultural economy is contributing to city's wealth and position through two aspects: directly as the growing economy with high-value creation and indirectly through dissemination of know-how, innovation and provision of cognitive tools to wide spectrum of other sectors.

Enhancement of cognitive-cultural economy

Urban agendas for development of creativity and knowledge have been broadly accepted and introduced in a variety of cities in Europe, North America and Asia. Most of these strategies are based on theories and principles established by Landry (2000) and Florida (2002). Urban programs based on Landry's work are putting emphasis on local governance creativity, creative leaders of the city and engaging citizens in this process. They use local cultural potentials and identity, evolve it to create broadly recognizable image, a brand of the city. Most popular method for city creative enhancement was created by Florida (2002). Cities improve amenities (cultural, entertainment and leisure) with the aim to attract creative class, that preferentially will migrate to such cities. Cities try to create special urban atmosphere and bohemian quarters through urban

gentrification, use of heritage sites and derelict ex-industrial areas on top city locations and their conversion to desirable places for work and living.

Presented approaches which concentrate on the enhancement of creative human capital are often criticized as too simplified, not considering the complexity of city. For city development not only human capital is important, but also production and job-generation capacity (Storper and Scott, 2009). This type of developmental engine is the major motive force of city growth in cognitive-cultural capitalism today (Scott, 2007). Allen Scott proposes that if a city wants to create successful development strategy in cognitive-cultural economy, it needs to create specialised clusters, clusters of technology-intensive, service and cultural producers (Scott, 2014). Cities are integrating different strategies to boost development of clusters and jobs, from availability of working space and concentration of companies, financial support, to networking of different actors and organizational support for sectors.

The labour market around clusters and the wider urban system has important part in enhancement of cognitive-cultural economy. To support cognitive-cultural economy it is important to invest in educational institutions and education of citizens (Scott, 2010). Educational institutions, especially universities, have significant role in creation and retaining of high-educated and creative work force in the city, and creation and spread of knowledge-intensive companies and small creative industries (Musterd and Murrie, 2010), which are the carriers of cognitive-cultural economy.

METHODS FOR STIMULATION OF COGNITIVE-CULTURAL ECONOMY DEVELOPMENT

No matter what approach to development of cognitive-cultural economy city selects, its implementation and success is not simple and straight forward. There are numerous elements that need to be taken into consideration if the city wants to reach desired goal.

Creation of attractive urban areas in the city, close to the city centre, with specific bohemian atmosphere and buzz, that aims to respond to desires of creative and high-educated people, sometimes does not lead to predefined goals and even can have negative effects. Through gentrification of these areas the primary element that made them attractive, spontaneity and creative people concentration, may disappear. Very often the first sign that dilapidated areas will go through transition is settling of artists and creative workers and opening of their businesses (Zukin, 1982). Gentrification process brings the rise in rent, and much of the first residents are forced to move. New area loses its buzz and its capacity for cognitive-creativity stimulation (Scott, 2014). If the city governance wants to keep the capacity for knowledge and innovation it needs to take careful small interventions that will protect original groups. Too high institutionalization will drive away investors and suppress alternative character. Informal and smaller art organizations are more important than flagship cultural institutions for social networking (Currid, 2007). The possible ways are: ensure presence of parts of the area that have low rents of apartments and offices; offer different types of apartments for different groups, as well as different types of office spaces. The creation of area with mixed rental choices is the best, as it leads to mixed social, occupational and class neighbourhoods.

Urban policies directed towards gathering of particular companies in limited spaces in the city do not create clusters, not in the notion of Allen Scott. Social networks and embedded ties are critical for creativity and innovation production (Flew, 2010). In the most alternative model the spatial concentration in the city is not a precondition of cluster existence. It can be replaced with functional network between companies and workers. If a city wants to stimulate development of successful cognitive-cultural clusters it should not start from scratch, denoting some vacuous area of the city for cluster. It should recognize existing cognitive and cultural networks and extend them further. Through institutional mechanism it should stimulate companies to cooperate more. Mechanisms can range from services for interlinking of companies with similar work and needs,

offering coworking spaces, creating attractive urban area around existing concentration of companies, to in the final end relocation of companies to one new place.

Success of the cluster depends on its specialization, on the one hand, and on its diversity, on the other. Specialization more efficiently contributes to external economic gain and city global position (Davis and Mills, 2014). Cognitive-cultural economy on global scale have tendency to concentrate in specialised cluster of specific industry (Scott, 2014), such as Silicon Valley, Hollywood, Manchester Media City, Smart Oulu. City governance should choose those specializations that have rooted knowledge and experience in the city. The economic structure of the city should not reflect choices of preferred individual but better the "path-dependent logic of production" (Scott, 2008, p.82). Diversity is important for the transfer of knowledge. Diversity of personal contacts (networks) leads to a diversity of knowledge. Diversity in cognitive-cultural clusters can be achieved through import of high-knowledge workers and companies, who are attracted by recognizable brand of the cluster and alluring business conditions. The other possibility is connecting cluster with other clusters abroad. The mix of local diversity and input from abroad gives the biggest effect on knowledge and innovation production. Labour in cognitive-cultural clusters make numerous self-employed and small companies. In order to insure sustainability cities should give support to this vulnerable groups, helping them financially in periods of transition between contracts, giving access to organized networks, offering space, business and marketing services for start-ups.

CONCLUSIONS

Not all of these methods had successful result in city's global positioning, nor the same strategies had uniform effects in every city. Local specificity of the city and path dependence have impact on the outcomes of methods for cognitive-cultural development on city global position. It is not always enough to rely on only one sector for city development and wealth. In the new economy it is necessary to link scientific and technological innovation production with local artistic and cultural creativity, since only by joint appearance they contribute to enhancement of city cognitive-cultural economy (Krätke, 2012). Depending from the start and by governance desired position in global urban hierarchy different strategies should be chosen by different cities. Wise decision and implementation can notably enhance city position in global urban hierarchies.

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