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# Rankings and networks – global cooperation and competition

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## 1 ABSTRACT

Due to strong economic and technological changes over the last decades cities and regions are facing growing competition for high ranked economic activities (see Begg 1999) within the information society. On the urban level, cities aim at improving their competitiveness and their position in the national or international urban system. This trend enhances the importance of specific local characteristics, which provide comparative advantages competing for increasingly footloose and mobile global enterprises, investors, tourists and capital (Parkinson et al. 2004; Giffinger et al. 2003). Hence, the comparison of cities can support investors in their choice of location on the one hand, but it can also be an important guide for future city development on the other. But not only from the perspective of cities themselves the increasing competitive pressure and adequate handling of new challenges for urban management, planning and urban politics matters, but also urban research and analysis considers cities in competition increasingly, as, for example, the ongoing discussion on global cities shows (Sassen 2001, Taylor 2004).

Therefore, this paper discusses two different approaches to compare cities and to see them in global competition:

City rankings and current concepts of city networks. City rankings increasingly attract public attention, supported by the media, and serve as “flagship” for city marketing. A multiplicity of city rankings can be found both on a national and on an international level, showing up with considerable differences in form and content. Concepts of urban networks try to see cities as a network above their nations. Within those networks competition and cooperation takes place, forming the image, ranking and status of a city within that networks (Castells 2000, Sassen 2002).

Within that paper the conceptual differences of these concepts as well as their meanings and implications for cities (planning, politics, city marketing) in a global challenge will be discussed. Thereby, special emphasis will be put on indicators measuring the concept of “quality of life”.

## 2 BACKGROUND

### 2.1 Competition between cities

Within the last decades, the challenges for and tasks of city planning and urban politics have changed as, for example, the positioning of cities and city marketing gain more and more importance within the ongoing global and regional competition (cp. Jensen-Butler 1997).With respect to a global level, cities and regions are facing growing competition for high ranked economic activities as a consequence of strong economic and technological changes over the last decades (cp. Begg 1999). On the urban level, cities aim at improving their competitiveness and their position in the European or national urban system. This trend enhances the importance of specific local characteristics, which provide comparative advantages competing for increasingly footloose and mobile global enterprises, investors, tourists and capital (Parkinson at el. 2004; Giffinger et. al. 2003). Facing this development, urban competitiveness and corresponding strategic approaches with specific goals and modified instruments have become important efforts of urban politics. The comparison of cities within rankings can support investors in their choice of location on the one hand, but it can also be an important guide for future city development on the other. As rankings reveal particular strengths and weaknesses of the cities, policy makers are enabled set specific actions to work on certain problems and to implement measures for sustainable development when considering the results of a high-quality ranking or benchmarking. In addition to that, positive results in a widely published and approved city-ranking can also be used as a central part of a city’s marketing strategy: a top-rank in a highly reputed city-ranking definitely helps to improve the international image of a city. Thus, city-rankings have become an important empirical base for disclosing comparative advantages and sharpening specific profiles and consequently for defining goals and strategies for future development. But not only from the perspective of

cities themselves the increasing competitive pressure and adequate handling of new challenges for urban management, planning and urban politics matters, but also urban research and analysis considers cities in competition increasingly, as, for example, the ongoing discussion on global cities shows (will be further examined in chapter 4).

### 2.2 Cities as „produced places“

Before going into detail on the specific research questions of this paper, two important statements have to be premised: first of all – as Häußermann and Siebel notice to the point – cities are not an “independent variable”, but an object of social patterns and a location for various social and economic developments (cp. Häußermann/Siebel 2004). A city is not a „place per se“, but the result of (and at the same time also the precondition for) the (co-)actions of stakeholders, spatial structures and social processes. Taking this statement in combination with the considerations of Bökemann, that places can be seen as the products of political decisions (cp. Bökemann 1999), the political dimension of city rankings is revealed: rankings on the one hand reflect these political decisions; on the other hand, they again influence decisions and measures of stakeholders and politicians, which “produce places”. In general, theatricality and production/stating of (mass-media oriented) policy gain more and more importance, not only caused by media themselves, but also supported by the self-promotion of cites and promotion of policies by politicians themselves (cp. Meyer/Schicha/Brosda 2001). These two assumptions (cities as “products” of complex interactions and decisions as well as the political dimension of rankings) somehow build up the frame for the critical analysis of different types of city rankings and city networks as outlined at the beginning.

## 3 CITY RANKINGS

### 3.1 Characteristics of city rankings

A multiplicity of city rankings can be found both on a national and on an international level. These ranking show up with considerable differences in form and content, but they have one aspect in common: again and again they become topic of press releases and subject to the public discussion, urban politics and other key players, either with happiness or consternation. Obviously, people (and cities) tend to aim at competing with others and “to be the best” (can be observed throughout history in different areas of life like sports, art and music contests etc.). On the urban level, one has to consider the following questions: Who profits from the discussion about rankings? Why is it worth discussing rankings – in general and especially in scientific analysis - if rankings are rumored to be a problematic and methodologically questionable issue?

Often rankings work on different scales and tend to “compare oranges to apples”, producing inconsistencies and contradiction between different studies and analysis approaches (cp. Dangschat 2001). The objectivity of rankings is highly influenced as well by the selection of cities and indicators, by the available data quality and the comparability of data, as of the calculation method itself. Therefore, it has to be questioned whether rankings are a useful instrument for cities or not. How (and to which extent) do city rankings really refer to the local characteristics and the quality of life in cities?

Basically, the concept of comparing cities by using certain criteria is a known point of view in urban research ranging from the very first calculation of a rank size rule, to the theory of Christaller on the centrality of places and, currently, to the ongoing discussion on global cities. These concepts focus on an overall classification of cities (often based on network-oriented criteria), but in the content of this paper, the term “ranking” is used in a more precise way, as one is confronted with a very broad spectrum and conceptual confusion when examining the state-of-the-art on city rankings: many different terms like “city ranking”, “comparison of cities“, „benchmarking“, „city-scan“ etc. can be found.

Therefore, a definition of city rankings – as used in this paper – has to be positioned here. Constitutive elements of a city ranking are:

- At least two cities are included
- The cities are structured in an ascending/descending order resp. arranged in a hierarchy
- A combination of at least two indicators are used for building up the order/hierarchy

In the following, the most important areas and effect patterns how city rankings – in relation to their specific characteristics – influence urban politics and planning are discussed.

### 3.2 Benefits and potentials of city rankings

It is quite obvious that rankings attract attention and stimulate a broad public discussion as multiple reactions on newly published rankings often show (cp. Dangschat 2004; Fertner et al 2007; Mäding 2001). In combination therewith, rankings stimulate the discussion on regional development strategies by accountable actors (cp. Schönert 2003); certainly influenced more or less by media. Furthermore, as theatricality and production/stating of (mass-media oriented) policy gain more and more importance in general (not only caused by media, but also supported by the self-promotion of cites and promotion of policies by politicians themselves; see Meyer/Schicha/Brosda 2001), rankings can be applied to issues of city marketing (Rankings as "flagships") and, generally spoken, for presenting the characteristics of the city to the outside.

In addition, potentials of city rankings emerge out of the fact that there are a competitive instrument working on the basis of disparities and differentiation. This may initiate learning effects (Why is another city better?) and contributes to make positive characteristics public outside the city itself. Cities are enabled find their position within the ongoing urban competition and to sharpen their profile (cp. Fertner et al. 2007). However, these initiated learning effects of rankings can only come into operation if regional actors make their decisions transparent and comprehensible (probably rankings force actors into more transparency). But unfortunately the required transparency of rankings themselves can only be found within a few elaborated ranking approaches and, moreover, there's no empirical proof that ranking results are reflected in the (future) economic power of a city (cp. Schönert 2003).

### 3.3 Disadvantages and limits of city rankings

One of the limits of rankings can be summarized under the terms "beauty contest" and „recursive self-affirmation" (cp. Schönert 2003); meaning that the discussion about city rankings focuses on final ranks and complex interrelations and causalities are unattended or neglected. Public attention is mainly focused on the final ranking without considering the methodological aspects behind the ratings. In combination with that, the selective public perception of results enforces a confirmation of existing stereotypes and clichés (cp. Schönert 2003). The non-reflected handling of results is made worse out of the fact that the city selection is often not transparent and excludes certain cities systematically from being taken into account (furthermore, big cities are disproportionately often included in rankings).

Another risk of city rankings is that rankings are excessively acclaimed by the "winners" and ignored by the "losers". Cities (mainly badly ranked cities) oppose comparisons with others („benchmarking") in general. In addition to that, rankings tend to follow a "generalistic" approach, as many financiers ask for clear results which can easily be communicated in public and so most rankings aim at finding the "best" or "most attractive" city in general terms totally ignoring the fact that different activities need different conditions (cp. Fertner et al. 2007; Schönert 2003).

As indicated before, rankings strengthen competition between cities, which may have negative consequences like deregulation, structural and spatial problems, risk for socially acceptable city development etc., so that long-term development strategies may be threatened (cp. GIFFINGER et al. 2003).

## 4 CITY NETWORKS

There is not just one theory about city networks; this is a growing field in the last years. In the last 20 – 30 years more and more theories about evolving networks between cities began to develop. Of course all these theories are different in their details, but some considerations and opinions are quite similar and should be introduced at the beginning of this chapter. Further on, four of these "city-networks-approaches" will be analysed in detail in the following (named by their author in alphabetical order): Manuel Castells, John Friedman, Saskia Sassen and Peter Taylor. At the end the closer look at these four single theories and their common knowledge about city networks leads to a conclusion what makes this approach similar or different to that one of the city rankings.

All theories about city networks describe the organization and the relation that big, „Global"- or „World"-Cities have to each other. The most common thing that the theories of networks state is that the globalization of companies and the rise of technology (the so-called information age), made the development of big city

networks possible. Beside that they differ in the details about how networks are formed exactly or what was the most important point in the evolution of these systems. All of the theories agree that there are not only networks of cities that consist out there by their own. Every theory argues that the network of cities (or the networks) is just one among many networks like company networks, economic networks etc. The most important point about the city-networks is in all theories that the international network of companies made this system of cities possible. These company-networks with headquarters in all big cities to be able to perform global and also do business 24/7 (time-zone-shifting between the big cities) are on the one hand the base for the global network system of cities and produces so some kind of cooperation within the network. On the other hand the same system produces also a big competition between the cities because each big cities wants one of the headquarters located in their downtown to stay in the game of economy and power.

### 4.1 Castells and the network society

Manuel Castells' theory about city networks bases on his thoughts about the network society. His research started form a Marxist background when the informational revolution started. Castells especially focuses on the Internet as the first among all networks, the network that made networks possible. For him this revolution changes everything, beginning from work and the way work is organized to society and so also the places where society is densely organized – the cities. His theory „the space of flows" deals with a meta-network, where cities stand completely outside their nations and build their completely, almost independent networks, just depending on the companies which are located there, it can be understood as the network of cities: global cities – collaborating and controlling economies, where the „global people" travel and work. This network is located „above" the nations. (cp. Castells 2003)

### 4.2 World city hypothesis by Friedman

John Friedman also formulated and did research about global cities and city networks. Together with Goetz Wolff he formulated the „world city hypothesis" which consists of 7 points about the world city, its origin, its power and its future. For Friedman and Wolff again all is about the economic power, which the city controls, which develops the position in the hierarchy. The hierarchy of the cities consists of different levels of importance, which is seen as the area the cities can influence. The power a city has within the global economy is due to the flow of money and the capital accumulation processes; the position in the hierarchy is caused by the power and under a constant competition to the other cities. Also they saw (based as well on Castells theory) that there is a special class of „global citizens" moving, traveling, working and controlling the cities and the flows of money and power there. (cp. Friedman 1986)

### 4.3 Sassens' global cities

For Saskia Sassen the beginning of the global network was (different to Manuel Castells) the start and the rise of the transnational companies (first production, then service companies). Of course she also claims the importance of the informational development of communication infrastructure, which made the global city itself possible. For her the global cities are the locations where the most information is available. On the one hand because of the communication infrastructure (technological), on the other hand she sees the network of the cities as a hierarchy. Global cities are the cities with the best connections within the network. Within the global city itself she claims a change in society and the living conditions for the citizens. This approach is for Saskia Sassen a living one, which she also changes, if it is necessary. It means that it is not fixed which city is on the top of the hierarchy and which on the bottom. So for her there is cooperation and competition within the network of cities. She also sees the power that a global city can get, also over a nation. (cp. Sassen 2001, Sassen 2002)

### 4.4 World city network by Taylor

Also Peter J. Taylor bases the city network on the economy. His approach itself tries to form a ranking within the cities in the world. After his approach the network is based on the economy and business. Again the multinational company and the flows within the single offices in the different cities are the center of the research. Like Saskia Sassen Taylor argues that the service company is the central point in this process. With this method Taylor and the research group (Globalization and World Cities – GaWC) also build a ranking or

hierarchy of the world cities, which distinguishes them in 3 different levels (as well as sub-levels) They permanently work on this issue and keep it actual and dynamic. (cp. Taylor 2004)[1]

So Taylors approach differs from the three described before. One can say Taylors intent was to find a ranking and he found it through the network of cities. The other authors worked and thought about the network and found the ranking of the cities. So it can be seen that rankings and networks are closely bound to each other. The theory could be described as on of the concept of rankings and rankings are one of the practical outcomes of the theories.

## 5 MEASURING QUALITY OF LIFE

Along with resent key words like globalization, glocalization, etc., "quality of life" has gained importance in scientific and public discussion. When considering the different definitions of quality of life, a broad variety of concepts can be found. There is no common definition, but, however, some similarities can be identified within the varied approaches: most of the researchers in this field argue that quality of life is a multidimensional construct and has to reflect personal values. Furthermore, there is a consensus among scientists that a comprehensive definition of quality of life has to contain both objective and subjective elements. As shown in the next figure, three different dimension of quality of life can be distinguished[2]:

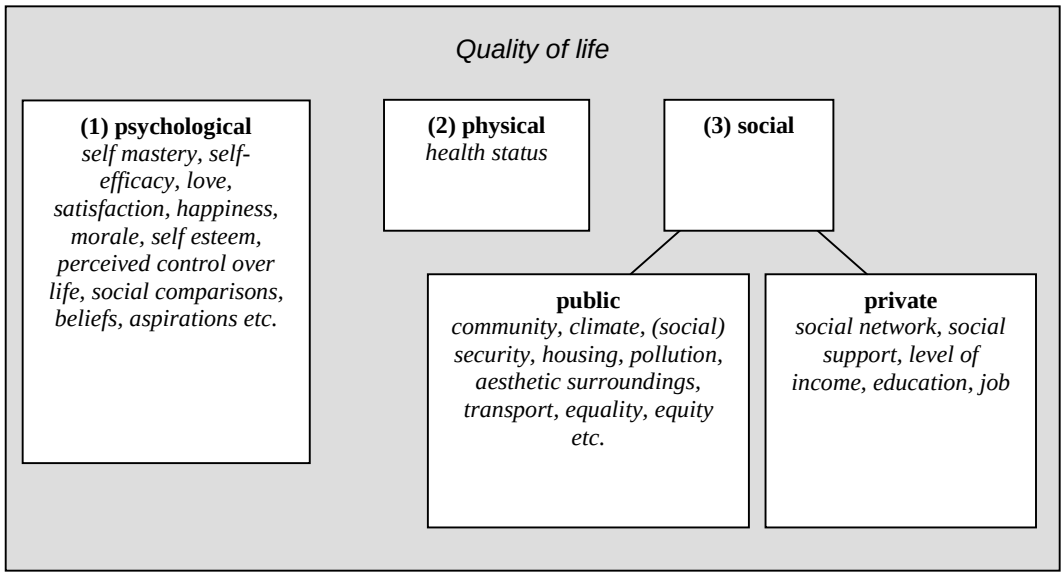


Figure 1: Three dimension of "quality of life"

These three dimensions of course interact with each other: for example, the health status of a person influences his or her possibilities to take part in social activities. The psychological dimension reflects the potential of fulfilling individual needs and therefore has a strong connection with the subjective well-being of a person. Also for the third dimension, the social preconditions, interrelates with the other elements, e.g. if people become immobile (for what reasons ever), social care is needed for the fulfilment of their basic needs causing additional costs for society. Therefore, analysis of quality of life has to take into account not only single aspects of these dimensions, but also the interactions between them.

## 6 IMPLICATIONS FOR CITIES – DISCUSSION

Today many cities claim for themselves to be very „liveable" – "quality of life" has become an omnipresent keyword in many areas, especially in planning (and social) discicplines. But is a "high quality of life" a desireable and – all above – a realisable goal resp. concept for cities? How are the different dimensions of quality of life reflected in rankings resp. how are they considered within the various concepts of city networks?

[1]World City Ranking: http://www.lboro.ac.uk/gawc/data.html
[2]Vgl. u.a. Cummins 1999; Finlay 1997; Hagerty et al. 2001

## 6.1 Rankings and quality of life

As shown in a research project on city rankings[3], within a sample of 20 different city rankingsfive city rankings explicitly deal with quality of life. These rankings are of very heterogeneous quality – they show up with varied methodological characteristics:

- Two of them are measuring solely quality of life indicators and comprise many indicators for calculation the ranking.
- Three rankings are treating quality of life among other points of interest. The assessment of quality of life is mainly done with the help of questionnaires and (not clearly specified) expert judgements. The number of indicators used in these rankings show up with broad variation.

Remarkable, many other rankings also deal with indicators measuring parts of quality of life without explicitly naming the concept. Mainly these rankings belong to the more sophisticated types of rankings in terms of methodological quality. When going into detail on the indicators used within these rankings by following the definition on the three dimensions of quality of life, it comes apparent that mainly indicators measuring social-public dimension can be found, followed by indicators on the social-private level. The following figures shows the key issues tackled within these rankings and some examples of the used indicators:

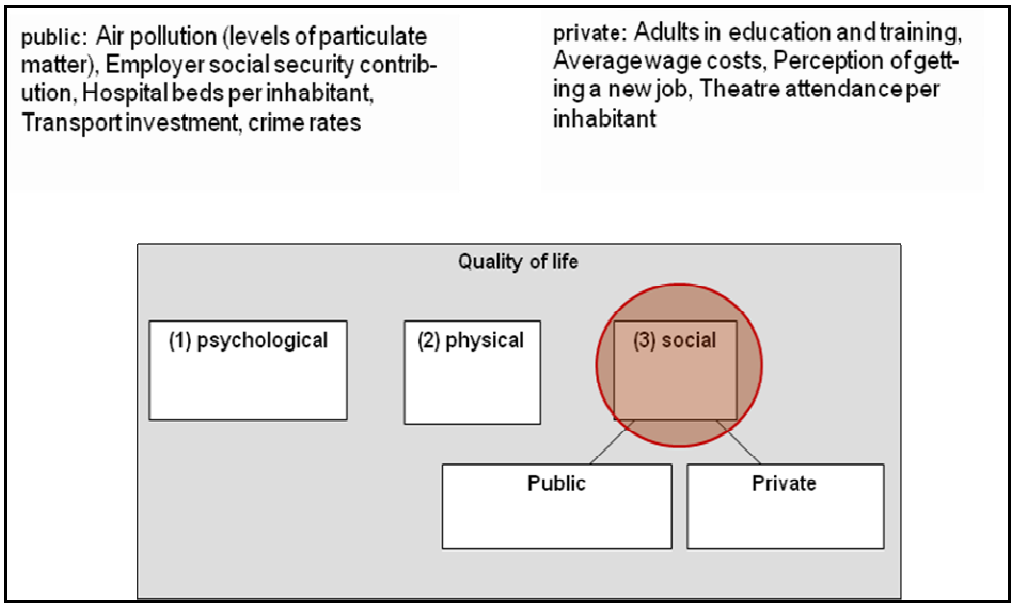


Figure 2: Focus of indicators on quality of life used in city rankings

Within the concept of city networks the quality of life of the citizens is not a big issue. If the theories consider the citizens and their life quality they mention that the network of cities improves the life of some citizens (global citizens) and the rest of the population is not affected or suffer from worse living conditions (cp Sassen 2002, Castells 2003). Friedmanns' and Taylors' approach are much more focused on economy and technology, therefore they do not center social categories or (subjective) evaluations of citizens regarding "liveable cities".

## 6.2 Are there implications of rankings and networks for city development?

Often long-term strategies for city development are threatened by short-term policy goals or the claims to power of various actors and lobbies (cp. Fusshöller et al. 1995). City rankings (and as well city networks) are quite ambivalent instruments as they are exploited both for short-term-goals as well as for long-term concepts of e.g. city marketing ("flagships"). In this context, city marketing works in an area of conflict between these long and short-term goals of a city. As Ilse Helbrecht shows with the help of her regulation theory on an international level, the traditional structures of city planning and politics have changed (cp. Helbrecht 1994). Tendencies of deregulation, decreasing formalisation of decision processes as well as the

[3] Current phD-project on the quality of city rankings and their implications for positioning of cities and city planning started in 2009 at the University of Technology Vienna (Centre of regional science) and the University of Vienna (Institute of Sociology).

increasing privatization of municipal tasks play a decisive role in dealing with these new challenges for city planning. Especially in the US the trend towards the "entrepreneurial city" is obvious as local authorities are forced into more individual responsibility and to find new funds for projects and municipal tasks due to the shortening of national funds (cp. Helbrecht 2004, Jensen-Butler 1997). Furthermore, "soft locational factors" gain more and more importance compared to traditional „hard locational factors" (cp. Fusshöller et al. 1995 Giffinger et al. 2003), but the traditional structures of regional development are not able to react adequately thereon. Cooperation is one of the key word mentioned in this context. Basically, city networks (as well as city rankings) would be a chance for cities to establish cooperation with cities on the same level resp. cities with similar conditions and characteristics. However, city network approaches are more perceived as rivalry than as the beginning of cooperation, as Castells points out: cities that do not belong to the network, do not exist – this could be stated pessimistically for city rankings as well.

When talking about networks all theories automatically build up a hierarchy within these city-networks. It can be a hierarchy of single cities or a hierarchy of different levels of cities. So it can be concluded that city network approach implies cooperation as a base of the network. They are formed out of cooperation. On the other hand it also has to be considered that competition is a big issue within the networks because cities trying to attract companies to accumulate more power then there "neighbour cities". Seen from the city ranking approach, one can say that every city network theory includes a city ranking, but all authors highlight that these hierarchies are quite dynamic and can never be static. The difference to city rankings is that these hierarchies come out of theories and noticeable is that all four described theories named the same cities in the top three: New York, London and Tokyo.

## 7 REFERENCES


Begg, Iain (1999): Cities and Competitiveness. In: Urban Studies. Vol. 36, Nos 5-6. Page 795-810.

Bökemann, Dieter (1999): Theorie der Raumplanung. Oldenbourg. München / Wien. Zweite Auflage.

Castells, Manuel (2003): The information age 1. The rise of the network society. Blackwell. Cambridge. Mass. Second Edition.

Cummins, R. A. (1999): A psychometric evaluation of the comprehensive quality of life scale Fifth Edition. In: L.Y. Lim, B. Yuen & C. Low (Eds.): Urban quality of life: Critical issues and options (pp. 32-46). School of building and real estate, National University of Singapore.

Dangschat, Jens (2001): Hamburg vor Köln und München, Berlin deutlich dahinter, Leipzig abgeschlagen. Warum und für wen der „Unsinn von Rankings" Sinn macht. In: ARL 1/2001; 1-3.

Fertner, Christian, Giffinger, Rudolf, Kramar, Hans, Meijers, Ewert (2007): City ranking of European medium-sized cities. Paper presented at the 51st IFHP World Congress ("Future of Cities"), Copenhagen.

Finlay, A.Y. (1997): Quality of life measurement in dermatology: a practical guide. British Journal of Dermatology 136, 305-314.

Friedmann, John (1986): The World City Hypothesis In: Lin, Jan; Mele, Christoph: The Urban Sociology Reader (2005). Routledge. Oxon. New York. Page 224 - 229

Fusshöller, Markus et al. (1995): Stadtmarketing – Ein Leitfaden für die Praxis. Bonn (= DSSW-Schriften 14).

Giffinger, Rudolf et al. (2003): Sozialverträgliche Stadtentwicklung im Städtewettbewerb. Stadtentwicklungspolitik am Beispiel von Wien und Budapest. Institut für Stadt- und Regionalforschung. Technische Universität Wien.

Hagerty et al. (2001): Quality of life indexes for national policy: A review and agenda for research. Social Indicators Research 55, 1-96.

Häußermann, Hartmut / Siebel, Walter (2004): Stadtsoziologie. Eine Einführung. Campus Verlag. Frankfurt am Main.

Helbrecht, Ilse (1994): Stadtmarketing. Konturen einer kommunikativen Stadtentwicklungspolitik ( = Stadtforschung aktuell, Bd.44).

Jensen-Butler (Hrsg., 1997): European Cities in Competition. Avebury. Aldershot.

Mäding, Heinrich (2001): And the winner is… Standpunkt: Städte-Rankings. In: DIFU-Berichte 2/2001; 2-3.

Meyer, Thomas / Schicha, Christian / Brosda, Carsten (2001): Diskurs-Inszenierungen. Zur Struktur politischer Vermittlungsprozesse am Beispiel der „Ökologischen Steuerreform". Westdeutscher Verlag. Wiesbaden.

Parkinson, Michael, Hutchins, Mary, Simmie, James, Clark, Greg and Verdonk, Hans (Eds., 2004): Competitive European Cities: Where Do The Core Cities Stand? London.

Taylor, Peter J. (2004): World City Network. A Global Urban Analysis. Routledge. London.

Sassen, Saskia (2001): The Global City. New York, London, Tokyo. Princeton Univercity Press. Princeton / Oxford. Second edition.

Sassen, Saskia (editor) (2002): Global networks, linked cities. Routledge. New York. London.

Sassen, Saskia (1993): Global City. Internationale Verflechtungen und ihre innerstädtischen Effekte. In: Häußermann, Hartmut/Siebel, Walter (Hrsg.): New York. Strukturen einer Metropole. Suhrkamp. Frankfurt am Main; 71-91.

Schönert, Martin (2003): Städteranking und Imagebildung. Die 20 größten deutschen Städte in Nachrichten- und Wirtschaftsmagazinen. Monatsbericht des BAW Institut für Wirtschaftsforschung. Bremen. Heft 2/2003, 1 - 8.

World City Ranking: http://www.lboro.ac.uk/gawc/data.html (Feb.2010)