
Where Evolutionary-institutional Theory of Regional Economic Development Meets the Post-socialist Reality of Central and Eastern Europe: Building Silicon Valleys in Slovakia.

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Abstract

Evolutionary-institutional theory of regional economic development makes important claims about the links between regional institutions and regional economic development. Institutional ‘thickness’ and networking between firms and a plethora of institutions at the local and regional level are seen as crucial for fostering innovation, learning and knowledge creation and thus securing a successful regional economic development in the global knowledge-based economy. Silicon Valley is often cited as the best example of a ‘high-tech’, high added-value, highly innovative, post-industrial, knowledge-based and a highly successful regional economy. From an evolutionary-institutional perspective, the purported success of Silicon Valley is explained by its particular institutional set-up and networking culture. But can Silicon Valley-style regional development be replicated in East-Central Europe? Does evolutionary-institutional theory of regional economic development work in the context of a post-socialist transformation? This paper examines the extent to which assumptions of the evolutionary-institutional theory can be applied to regional development reality in Slovakia, using the cases of Bratislava and Košice regions. While these two regions represent two contrasting cases of regional development, both regions share an aspiration to become successful, Silicon Valley-style, knowledge-based regional economies. Building on interviews with key regional actors in both regions the paper highlights some paradoxes involved in, and questions the causal direction of, the links between regional institutions and regional economic development.

Key words: evolutionary-institutional theory; regional economic development; Silicon Valley; Europe; post-socialist transformation; Slovakia.

JEL Classification: B52; O3; O43; P25; P30; R10; R58; I23; L86;

1 Introduction

Evolutionary-institutional theory of regional economic development makes important claims about the links between regional institutions and regional economic development. Institutional ‘thickness’ and networking between firms and a plethora of institutions at the local and regional level are seen as crucial for fostering innovation, learning and knowledge creation and thus securing a successful regional economic development in the global knowledge-based economy. Silicon Valley is often cited as the best example of a ‘high-tech’, high added-value, highly innovative, post-industrial, knowledge-based and a highly successful regional economy. From an evolutionary-institutional perspective, the purported success of Silicon Valley is explained by its

particular institutional set-up and networking culture. But can Silicon Valley-style regional development be replicated in East-Central Europe? Does evolutionary-institutional theory of regional economic development work in the context of a post-socialist transformation?

This paper examines the extent to which assumptions of the evolutionary-institutional theory can be applied to regional development reality in Slovakia, using the cases of Bratislava and Košice regions. While these two regions represent two contrasting cases of regional development, both regions share an aspiration to become successful, Silicon Valley-style, knowledge-based regional economies. Building on interviews with key regional actors in both regions the paper highlights some paradoxes involved in, and questions the causal direction of, the links between regional institutions and regional economic development. Specific attention is given to Kosice IT Valley initiative that explicitly aims to create Silicon Valley in Eastern Slovakia, under extremely challenging circumstance. The relative success of this initiative (and the absence of any such action in a much wealthier region of Bratislava) in turn raises questions about some evolutionary-institutional arguments.

2 Evolutionary-institutional Approaches to Economic Development and Silicon Valley

2.1 Evolutionary-institutional approaches

Evolutionary-institutional approaches to economic development have been well established in heterodox economics (e.g. Nelson and Winter, 1982; Hodgson, 1988; Hodgson, 1993; Hodgson, 2001). To simplify the core argument, this literature suggests that there is a causal link between institutions and economic development. To put it differently, it is the institutional make-up of a given society that influences the way economy works and evolves (Fig.1). In this view then, it is the ‘right’ institutional environment that will impact on the ability of the economy to innovate and to continuously move towards more added-value activities. It is worth noting that ‘institutions’ are defined here in a broadest sense and may include not only ‘organisations’ (e.g. a university, a trade association, a chamber of commerce); but also a range of *formal* institutions (such as laws, regulations, formal procedures) and *informal* institutions (e.g. conventions, habits and unwritten cultural norms). In this way, through institutions, culture assumes a crucial role in the economy – it is ‘culture’ that impacts on the economic ‘structure’.

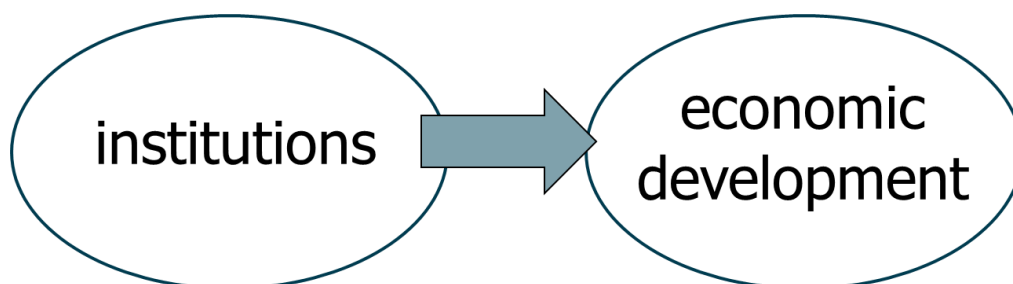


Fig 1. Evolutionary-institutional economics: institutions and economic development.

Source: the author

These views are strongly echoed in economic geography literature. Indeed, the so called ‘new economic geography’ has been, from its inception, heavily influenced by evolutionary-institutional arguments (e.g. see Amin and Thrift, 1994; Amin, 1999; Cook and Morgan, 1998; and subsequent literature). The key contribution made by geographers to these arguments has been the recognition of the importance of geography and, specifically, of the regional scale, in economic evolution. Indeed, simply put, the key argument seems to be that it is *regional* institutions that influence *regional* economic development (Fig.2). In the knowledge-based economy this would seem to make a lot of sense. Indeed, one could easily imagine how interaction and networking at the local/regional scale among firms and between firms, universities and plethora or local/regional institutions could create innovations and generate knowledge that is, the argument goes, so central to economic development in the ‘knowledge era’. Thus regional institutional ‘thickness’ (Amin and Thrift, 1994) and culture that supports learning and innovation (e.g. James, 2005) is believed to be central to regional competitiveness in the new economy.

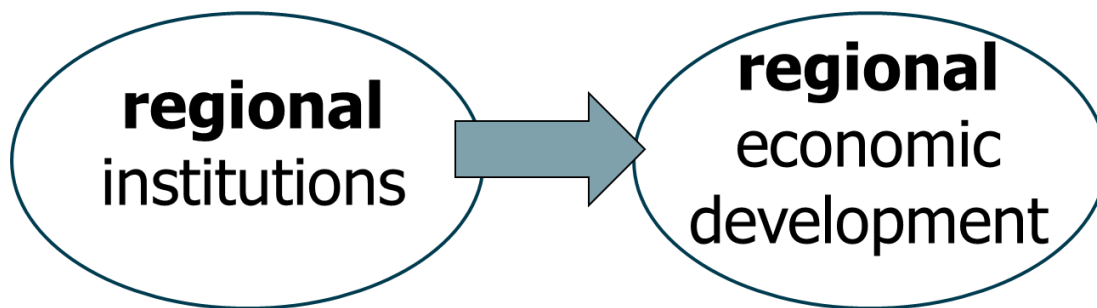


Fig 2. Evolutionary-institutional approaches in economic geography: regional institutions and regional economic development.

Source: the author

2.2 Silicon Valley – the best example?

Many argue that Silicon Valley is the best example of such a successful regional economy. Without doubt, Silicon Valley is one of the biggest agglomerations of IT firms in the world. For many people, Silicon Valley is the ultimate example of the ‘high-tech’, high added-value, highly innovative, knowledge-based regional economy. But can its success be explained through evolutionary-institutional theory? Many believe so. Indeed, while there are alternative explanations of Silicon Valley’s success (and also accounts that question the purported ‘success’ itself) it is the work of Saxenian (1996) that has had massive influence on the conceptualisation of innovative regional economies. Comparing and contrasting Boston, Massachusetts, with Silicon Valley, Saxenian argued that it is Silicon Valley’s specific business culture that supports networking (and thus learning) between its firms (and other players) that drives regional innovation forward. In other words, it is the regional institutional ‘thickness’ that ensures regional economic success.

3 Can Silicon Valley be Replicated in Eastern Europe?

3.1 State-socialist economies and Silicon Valley: hierarchies versus networks?

But can Silicon Valley-style regional development be replicated in the post-socialist East-Central Europe? This is an interesting question, not least because the former state-socialist economies are often claimed to have collapsed precisely because of the lack of Silicon Valley-style economic dynamism and innovation capacity.

Manuel Castells (1998, p.7), for example, has argued that the collapse of state-socialism ‘was the expression of the structural inability of statism [state-socialism] and the Soviet variant of industrialism to ensure the transition towards the information society’. The ‘information society’ is, of course, what others call the ‘post-industrial’, or ‘knowledge-based economy’ and, in Castells’s view, is fundamentally a ‘network society’ (Castells, 1996; Castells, 1998). What we have here, therefore, is a suggestion that state-socialism has failed due to its inability cope with the new ‘network society’ paradigm. This is not entirely surprising given that former state-socialist countries operated various versions of highly hierarchical, centrally-planned economic systems. In contrast, Castells himself recognises Silicon Valley as key innovation region of ‘the information technology revolution’ (Castells, 2000, p.62) which ushered the rise of the network society. The tension between (state-socialist) hierarchies and (Silicon Valley-style) networks is also evident in writings of other observers. Charles Leadbeater, for instance, has argued that Silicon Valley ‘is perhaps the closest to an economy which is both innovative and open while being capable of generating high degrees of co-operation and trust’ (Leadbeater, 2000, p.167), while the Soviet Union was ‘a good example of a closed, low-trust society, dominated by a corrupt hierarchy’ (ibid, p.197). Hierarchical, command-operated economic systems, in other words, are hopeless in promoting innovation and learning needed to prosper in the new ‘network’ era where information and knowledge are key to economic success.

3.2 The collapse of state-socialism, Silicon Valley dreams and the reality: the case of Slovakia

From the above perspective, the collapse of state-socialism in late 1980s created an opportunity for East-Central Europe to abandon ‘hierarchies’ and embrace ‘networks’ and, in doing so, create its own Silicon Valleys. Such hopes were high in countries like Slovakia which saw opportunities in benefitting from the new geo-political and geo-economic order. Situated strategically at the heart of the emerging ‘New Europe’, the country had high expectations with regard to its own economic future. In particular, the capital-city region of Bratislava, situated at the border with Austria and only 60 kilometres (40 miles) from Vienna, was seen by some as a bridge to bright knowledge-economy futures.

These expectations (if not universally shared) were not completely baseless. Indeed, several studies noted a potential of Bratislava for future economic development. Most notoriously, a survey of 414 European regions conducted in 1993 by a German economic institute EMPIRICA (Empirica Regional Monitor) concluded that the capital city-region of Slovakia is the best place to invest in Europe and labelled Bratislava the future ‘Silicon Valley’ of the East.

To what extent have these predictions materialised? Two decades later, Bratislava region is indeed one of the wealthiest regions in the enlarged Europe. Statistically, in terms of GDP per

capita, Bratislava is well above the EU average and closely follows Prague, the richest region of East-Central Europe. Within Slovakia, Bratislava surged well ahead the rest of the country and unemployment in Bratislava remained low even if the national unemployment rates have been among the highest in Europe. Indeed, Bratislava can be seen as part of extremely polarising regional economic landscape of post-socialist Slovakia. Western Slovakia, bordering Austria and the Czech Republic, is faring much better than the eastern half of the country (Fig.3).

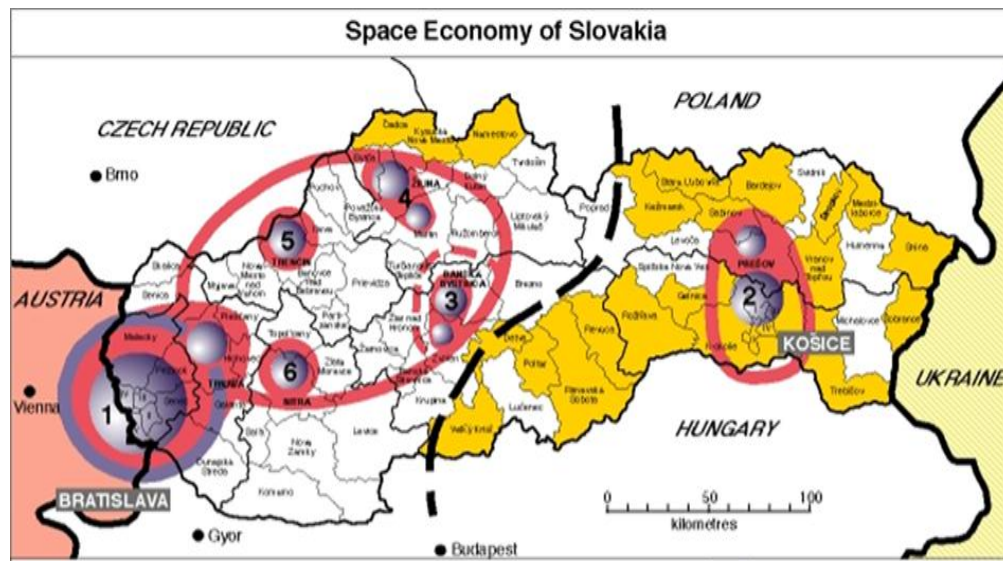


Fig 3. Space-economy of Slovakia

Source: Sokol, 2013, p.1328

Kosice region, meanwhile, exemplifies the economic troubles of Eastern Slovakia. Since the collapse of state-socialism, the Kosice region has been crippled by extremely high unemployment (reaching 17.5% in 2005) amid disintegrating state-owned agriculture and a major industrial decline. The latter also involves the East Slovak Steelworks – a flagship communist investment. Without doubt, Kosice is one of the poorest Slovak (and EU) regions and stand as a stark contrast to economic vibrancy of Bratislava.

Yet, the Bratislava region, despite its economic might, can hardly be described as ‘Silicon Valley’ and cooperative networks between major regional players are nowhere to be seen. Instead, it is the Kosice region that has emerged as the most active region in Slovakia to promote a Silicon Valley-style development via its “Kosice IT Valley” Association (see Sokol, 2013). On surface at least, a major paradox emerges: Bratislava region displays high regional GDP but low regional institutional ‘thickness’; while Kosice region has low GDP, but high institutional ‘thickness’. This raises questions with regard to evolutionary-institutional theory. Indeed, the causal relationship between regional institutions and regional economic development does not seem to work here – or at least it does not work in the direction that the evolutionary-institutional theory pre-supposes. To shed a light on this paradox, interviews were conducted in both regions with key regional players. This yielded some interesting findings.

3.3 Bratislava region: institutional paradox

As outlined in the opening parts of this paper, evolutionary-institutional approaches to economic development assume that it is regional institutions that shape the regional economy. Therefore, if

a regional economy is doing well, the assumption is that the region's institutional set-up is behind its economic success. However, no such relationship has been detected in Bratislava region. Based on available evidence, one can speculate that the economic performance of Bratislava is perhaps more of a result of the operation of market forces than any networking culture or institutional 'thickness'. In particular, it seems that powerful agglomeration economies effects are in place, strongly favouring the capital city-region over other regions in the country. There is a sense among many regional players that the growth in Bratislava region is nearly 'automatic' – and that it happens anyway, without any institutional intervention. Indeed, as many interviewees confirmed, establishing institutional networking, cooperation and/or coordination between major players has been problematic, not least in terms of promoting Silicon Valley-style development project (and despite officially proclaimed strategic regional aims). As one of the interviewees noted, key regional players are so strong that they don't feel the need to network. All this leads to an interesting conclusion. Indeed, it appears that it is the state of the regional economy that shapes the institutional landscape of the region. What we have here, therefore, is a possibility of a reverse causal link between the regional economic development and regional institutions - in this case, well-performing regional economy resulting in a fragmented institutional set-up without strong networking element.

3.4 Kosice region: Kosice IT Valley initiative

A similar reversed causal link can also be observed in the Kosice region – but with a completely different outcome. Indeed, as noted earlier, the introduction of market forces has had a devastating effect on the regional economy. Economic decline, unemployment and brain-drain have characterised much of the two decades of post-socialist transformation in Kosice region. But it is this devastating effect of 'transition to market' that galvanised regional players into action. As one of the interviewees noted, the region needs "to make a bigger effort just to keep the pace", let alone to advance. And there is a growing realisation that this will not be possible without coordinating efforts of all stakeholders. In other words, cooperation among regional players appears essential to keep the region above the water and to hold on to the dreams of more prosperous future. Simply put, the regional actors are realising that they need each other. These motives were also behind the creation of the "Kosice IT Valley" Association which set itself an ambitious goal of transforming the region into an innovative, knowledge-based, Silicon Valley-style economy. In order to achieve this ambitious goal, the Association is following a 'triple helix' model of cooperation between local/regional authorities, universities and the private sector (see more in Sokol, 2013). As of 2014, the Association had more than 30 members, including major IT firms operating in the region such as T-Systems, NESS, Siemens, VSE IT, Cisco, Microsoft and IBM (Fig.4).



Fig 4. Operation floor of T-Systems Slovakia, Kosice (Photo © M. Sokol)

Of course, this does not make Kosice a Silicon Valley and there are important wider political economy constraints due to which this may never be possible. But the Association is clearly having an appreciable impact in developing this emergent IT cluster, and is doing so in rather challenging circumstances. What is important to note here, is that the level of institutional networking and commitment by regional players is not rivalled by any other region of Slovakia (including the prosperous Bratislava region mentioned earlier). So what we have in the case of Kosice is a very different institutional outcome. Regardless, it appears that it is the state of the regional economy again that shapes the regional institutional landscape (before that institutional landscape is able to shape the regional economy). Therefore, just like in the case of Bratislava region, the possibility of a reverse causal link between regional institutions and regional development has been identified. These findings, therefore, call for a re-examination of evolutionary-institutional approaches in economic geography.

4 Conclusions

This paper has examined the possibility of replicating Silicon Valley in the context of post-socialist East-Central Europe. More specifically, it has examined attempts to build Silicon Valley-style development in two Slovak regions. In the case of Bratislava region, it appears that vibrant regional economy is in fact inhibiting a formation of closer institutional cooperation among major regional players. Meanwhile, in the case of Kosice region, a major institutional development is under way in the form of the “Kosice IT Valley” Association. The Association operates through a ‘triple helix’ model involving local/regional authorities, universities and IT firms and aims to build ‘Silicon Valley’ in Eastern Slovakia. In both regional cases, a possibility of a reverse causal link between regional institutions and regional economic development has been identified. Indeed, it appears that the state of the regional economy may shape the regional institutional landscape before regional institutions are able to shape the regional economy. This, in turn, highlights the need to re-examine evolutionary-institutional approaches to regional economic development.

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