

CONCEPTS, CONFLICTS AND ALLIANCES IN REGIONAL DEVELOPMENT

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Summary. Privatisation and European integration offer new possibilities for regional development in Serbia. In this process it is a factor of crucial importance to determine the goals, serving a long-range, sustainable socio-economic development as well as the formation of a wide –range consensus between the key actors. The article shows the possibilities of application of a multi-actor model for determination of basic strategic objectives and coalitions between key players on example of Northern Vojvodina. The results prove the importance of application of sophisticated decision support systems, based on collective wisdom; highlight the importance of system-based approach in rural development; and prove the role of info-communication sector in upgrading of attractiveness of capital –involvement in rural areas.

Introduction

Privatisation, social and political transition as well as European integration offer new horizons for Serbian regional development. (Serbian European Integration Office, 2005, EC 2006) At the same time it is obvious, that the rural development strategy and practice of European Union is a rather opaque and rather confuse (EU Committee of the Regions, 2005; Bachtler and Michie, 1995; Getinis, 2003; Nemes, 2005)

Under the current conditions of Serbia, the preparation of regional or local development plans gains in importance. This fact highlights the role of wide-range application of sophisticated methods of decision support. The aim of current article

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is fourfold (1) on example of an actual region demonstrate the interplay of different socio-economic forces, their dialectic relationships; (2) identification and analyse the different socio-economic goals of actors, relevant in regional development; (3) determination of possibilities of forging coalitions between actors with purpose of promotion of regional development; (4) test the applicability of sophisticated decision support systems in regional development.

Theoretical foundations and methodology

The basic theoretical foundation of research is the organisational theory (Amin, 2004) and the principle-agent theory (Eisenhardt, 1989).

According to the basic paradigm of so-called “French school of strategy” the different social systems can be considered as an arena, in which different groups of participants (the so-called actors) take part with purpose of enforcement of their specific interests (Godet, 2003). If one can relative adequately simplify the actors and the most characteristic features of their systems of interests, then there is a possibility of analysis the chances of different actors to realise their goals. The possibilities of actors to influence other actors are determined by the power to influence of other actors directly or indirectly, by using their influence on other actors in order to affect their behaviour. That’s why the influence of an actor (A) on another actor (C), is the sum of the direct influence is has on C and of all indirect influences it gains through all the other third actors.

The quantification of mutual influences can be characterised by a rectangular matrix, its name is matrix of direct influences (MID). Cells of matrix –per definition-reflect the intensity of influence of actor in row on actor in column (Bendahan et al., 2004). The intensity of direct influence on an actor to another was measured on a 0-4 scale, from no influence to absolute influence, determining the existence of the respective actor.

Matrix of direct and indirect influences (MIDI [1]), can be quantified for each par of actors as a sum of direct and indirect influences.

$$MIDI_{a,b} = MID_{a,b} + \sum_c (\min(MID_{a,c}, MID_{c,b})) \quad [1]$$

In this way of each and every actor can be determined the vector in influences (I_a) and dependences (D_a) by equations [2] and [3].

$$I_a = \sum_b (MIDI_{a,b}) - MIDI_{a,a} \quad [2]$$

$$D_a = \sum_b (MIDI_{b,a}) - MIDI_{a,a} \quad [3]$$

Based on these indicators a normalised value can be determined for each of actors.

$$r_a = \left(\frac{(I_a - \text{MIDI}_{a,a})}{\sum_a (I_a)} \right) \cdot \left(\frac{I_a}{(I_a + D_a)} \right) \quad [4]$$

Using the r_a vector one can define the matrix of influence-possibilities of each of actors for different issues. [5].

The importance of different goals from point of view of each actor has been expressed by Matrix of Actor-Object (MAO). In this matrix the importance and attitudes of different goals from point of view of different actors were quantified on a -4 ...+4 scale, where the -4 denoted the high importance and total negation of the given goal, and the +4 denotes the high importance and total support.

$$3\text{MAO}_{a,i} = 2\text{MAO}_{a,i} \cdot r_a \quad [5]$$

The 3MAO matrix is the basis of most of the analyses proposed by MACTOR. Indeed, a number of important values are directly drawn from the 3MAO matrix. This is the case of the mobilization coefficient [6], showing how much the different actors are involved in the situation, but also of the agreement [7] and disagreement [8] coefficients, which indicate how controversial are the different issues.

$$\text{Mob}_a = \sum_i |3\text{MAO}_{a,i}| \quad [6]$$

$$\text{Ag}_i = \sum_a (3\text{MAO}_{a,i} \cdot (3\text{MAO}_{a,i} > 0)) \quad [7]$$

$$\text{Disag}_i = \sum_a (3\text{MAO}_{a,i} \cdot (3\text{MAO}_{a,i} < 0)) \quad [8]$$

Furthermore, the 3MAO matrix is used to obtain the convergence matrix (3CAA [9]) and divergence matrix (3DAA [10]). For each couple of actors, these matrixes show how much they agree (respectively disagree) on salient and controlled issues.

$$3\text{CAA}_{a,b} = \frac{1}{2} \cdot \sum_i (|3\text{MAO}_{a,i}| + |3\text{MAO}_{b,i}|) \cdot (3\text{MAO}_{a,i} \cdot 3\text{MAO}_{b,i} > 0) \quad [9]$$

$$3\text{DAA}_{a,b} = \frac{1}{2} \cdot \sum_i (|3\text{MAO}_{a,i}| + |3\text{MAO}_{b,i}|) \cdot (3\text{MAO}_{a,i} \cdot 3\text{MAO}_{b,i} < 0) \quad [10]$$

Finally, the ambivalence coefficient [11] can be calculated for each actor, giving an indication of their expected stability in their potential alliances.

$$3EQ_i = 1 - \left[\frac{\left(\sum_k \|3CAA_{i,k}\| - \|3DAA_{i,k}\| \right)}{\left(\sum_k \|3CAA_{i,k}\| + \|3DAA_{i,k}\| \right)} \right] \quad [11]$$

In operative phase of investigations our first step was the determination of region concerned. This was the northern part of Vojvodina. This sub-region of Vojvodina has numerous specific features. The most important from point of view of regional development are as follows : (1) relatively high level of economic development. The Vojvodina Autonomic Region has given 32,1% , of GDP of Serbia in an average of 2000-2004 [Statistički godišnjak Srbije, 2000-2004]; (2) favourable conditions of agricultural production [agriculture of Vojvodina give 34% of total agricultural production of Serbia]; (3) ethnic heterogeneity [On data of Petrov et al. (2002) in Vojvodina the share of minorities is 35%, the largest of these is the Hungarian one: 14;4%], (4) intensive socio-economic relations with Hungary, the government of which tries by its own means and by support of the European Union to promote the cross-border relations. Of course, this region can be characterised by general features of another regions of Serbia, e.g. the relatively high level of unemployment, and the adverse economic consequences of civil war and NATO bombings.

The different actors and the two starting matrixes were compiled in a team work, involving eleven specialists from the region using interactive methods of decision making.

The key actors and their abbreviations, as well as goals and abbreviations are summarised in Table 1.

Analysing the list of actors, it is obvious, that the relatively high number of actors embraces a wide range of economic and social forces, shaping the environment of development of northern part of Vojvodina. The accession to the European Union is a central part of policy of Serbia, that's why it seemed to be reasonable to represent the EU as an actor. It is a strategic goal of Hungarian government to strengthen the relations with Northern-Vojvodina, because in this sub-region the Hungarian minority could play a "bridge-role" between Hungary (an in general: south –western part of the EU) as well as Serbian and another Balkan-states (Nagy, 2007). To promote this goal, the Hungarian government has allocated and mobilised financial resources.

At first sight it may be rather curious to see the multinational companies between the key –players in an area, which can be characterised mainly by agricultural production, but it is extremely important to emphasise, that the creation of new workplaces, establishment of a long term development can't expected only from agricultural production.

Table 1 Set of actors and set of goals

Name of the actor	Abbreviation	Name of goal	abbreviation
Municipalities	MUNICIP	Increasing of capital – attractiveness	CAPITAL
Serbian government	SERBGOV	Creation and upholding of workplaces	WOKPLACE
Government of Vojvodina	VOJDOGOV	Profit-maximisation	PROFIT
Citizens	CITIZ	Profit-regrouping for tax-evasion	TAXEV
Small-and middle-scale industrial enterprises	SME	Human resource development	HR
Agricultural enterprises	AGRIC	Protection of environment	ENVIRON.
Tourism-related enterprises	TURISM	Keeping of budget constraints	BUDGET
Multinational enterprises	MULTI	Increasing of competitiveness	COMPET
Hungarian government	HUNGOV	Improvement of quality of life	LIFEQ
European Union	EU	Sustainable development (from economic and ecologic point of view)	SUSTDEV
Industrial enterprises	INDUSTRY	Acceptance from side of Hungarian population	ACEPTHUNG
Infrastructural service sector	INFRA	Acceptance from side of total population	ACCEPTCIT
Non-governmental organisations	NGO		
Service provider sector	SERVICE		
Energy provider sector	ENERGY		
Info-communication sector	INFOCOMM		
Health-care sector	HEALTH		
Name of the actor	Abbreviation		
Municipalities	MUNICIP		

Table 2 Matrix of mutual influence (explication in the text)

	MUNICIP	SERBGOV	VOJDGOV	CITIZ	SME	AGRIC	TURISM	MULTI	HUNGOV	EU	INDUSTRY	INFRA	NGO	SERVICE	ENERGY	INFOCOMM	HEALTH
MUNICIP	0	0	2	3	2	2	1	0	1	0	1	0	2	1	0	1	1
SERBGOV	3	0	3	2	2	2	1	3	0	0	3	4	0	0	4	3	1
VOJDGOV	3	1	0	3	3	3	1	2	0	0	3	2	0	0	3	2	3
CITIZ	4	0	1	0	1	2	1	0	1	0	0	0	2	0	0	1	1
SME	0	0	0	2	0	2	1	0	0	0	1	0	0	2	0	1	0
AGRIC	2	0	0	3	1	0	0	0	0	0	1	0	0	1	0	0	0
TURISM	1	0	0	1	1	1	0	0	0	0	0	1	0	2	0	0	1
MULTI	3	1	1	1	3	2	0	0	0	1	4	3	0	3	2	2	0
HUNGOV	2	0	0	1	2	1	1	0	0	1	0	0	30	0	0	1	0
EU	1	2	2	1	0	1	0	3	0	0	2	2	0	2	1	2	0
INDUSTRY	1	1	1	1	3	2	0	1	0	0	0	1	0	2	1	1	0
INFRA	3	2	2	2	3	2	4	4	20	2	3	0	0	4	3	3	2
NGO	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
SERVICE	3	0	0	2	3	3	2	1	0	0	2	1	0	0	0	1	0
ENERGY	3	3	3	3	3	3	2	4	0	0	3	2	0	3	0	2	0
INFOCOMM	3	3	3	4	3	2	4	4	1	1	4	4	0	3	3	0	3
HEALTH	3	1	1	3	2	2	3	1	0	0	1	0	0	1	0	1	0

Analysing the different goals it is obvious, that—as a consequence of multitude of goal—we see a rather complex picture. Some of them reflect general goals, some the specific, complex situation in Northern Vojvodina. Among these, rather specific ones the most interesting the goal: “Acceptance from side of Hungarian population”. This reflects the fact, that the most important participants of discussion groups had a Hungarian nationality. The mutual influence–dependence has been described by matrix, shown in Table 2.

Based on matrix of influences, the influence-dependence chart can be constructed with purpose of better visualisation of results (Fig. 1). This cart is a bi-dimensional graph in which all actors are placed according to their global influence [2] (ordinate) and dependence [3] (abscissa). This graph gives a preliminary idea of the relative importance of the different actors, distinguishing between dominant actors (high influence) and dominated actors (high dependence), while also identifying isolated stakeholders (low influence and dependence) and relay actors (high influence and dependence).

Figure 1 The influence-dependence relations of actors

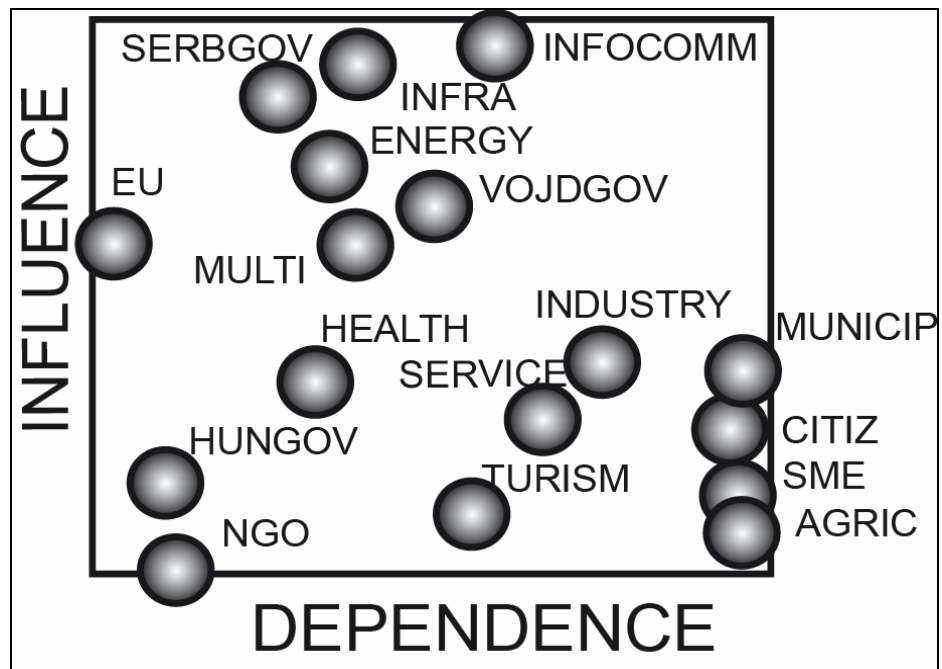


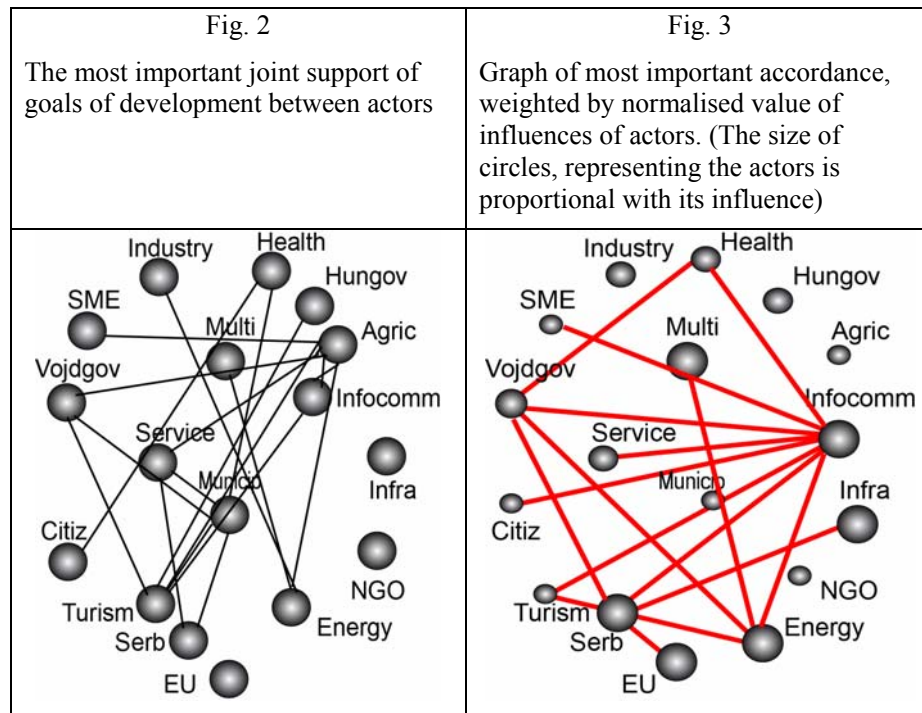
Table 3 The actor-objective matrix

	CAPITAL	WOKPLACE	PROFIT	TAXEV	HR	ENVIRON.	BUDGET	COMPET	LIFEQ	SUSTDEV	ACEPTHUNG	ACCEPTCIT
MUNICIP	3	2	0	0	4	3	4	1	4	4	4	4
SERBGOV	3	1	0	0	2	2	4	1	2	2	2	4
VOJDGOV	2	1	0	0	3	3	2	1	2	2	3	4
CITIZ	0	1	0	0	2	1	-2	1	4	1	4	4
SME	4	4	4	-2	1	-1	-2	4	4	2	0	2
AGRIC	1	1	4	-4	3	3	-2	2	4	2	3	2
TURISM	3	3	4	-4	3	4	-2	4	4	4	2	2
MULTI	4	1	4	4	1	-4	-4	4	1	1	1	1
HUNGOV	0	0	4	4	2	2	0	0	0	0	4	1
EU	0	0	4	4	4	4	0	0	0	4	0	4
INDUSTRY	4	3	4	4	2	0	-4	4	0	0	0	4
INFRA	4	3	0	0	0	2	0	4	0	0	0	4
NGO	0	0	0	0	3	4	0	0	4	4	4	4
SERVICE	4	4	4	0	2	-2	3	2	4	2	4	4
ENERGY	4	0	4	4	2	-2	-2	4	4	4	4	4
INFOCOMM	0	2	4	-4	4	0	0	4	4	4	4	4
HEALTH	0	1	0	0	4	4	2	0	4	4	4	4

An analysis of influence-dependence relations of different actors reflects the contradictory situation in Serbia. This fact is well characterised by relatively high level of influence of Serbian government on one hand, and the marginal position of non-governmental (civil) organisations on the another hand. Multinational enterprises could and should play a decisive role in development of the region, but it is an open-ended question, how could be formed such a system of circumstances, which make the region to an attractive place of business. The highly important role of info-communication sphere is a natural consequence of economic development and formation of a service-based society. At the same time, this fact expresses the importance of improvement of competition-regulation of this sphere. Low level of influence and at the same time high level of dependence of municipalities, small- and middle-scale enterprises, as well as the citizens themselves highlights the deep-rooted consequences of former political and economic system, as well as the problems and obstacles of formation of a more decentralised, civilian society.

The strategic goals of different actors are summarised in so –called actor-objective matrix (Table 3). Pieces of information of this matrix can be further investigated by network-analysis.

The starting point of the network analysis is the fact, that the number of appropriately chosen interactions between different actors is proportional with the tightness between them. The same approach can be further generalised: the frequency of common acceptance or support of some goals is a measurement of common goals, and the possible coalitions.

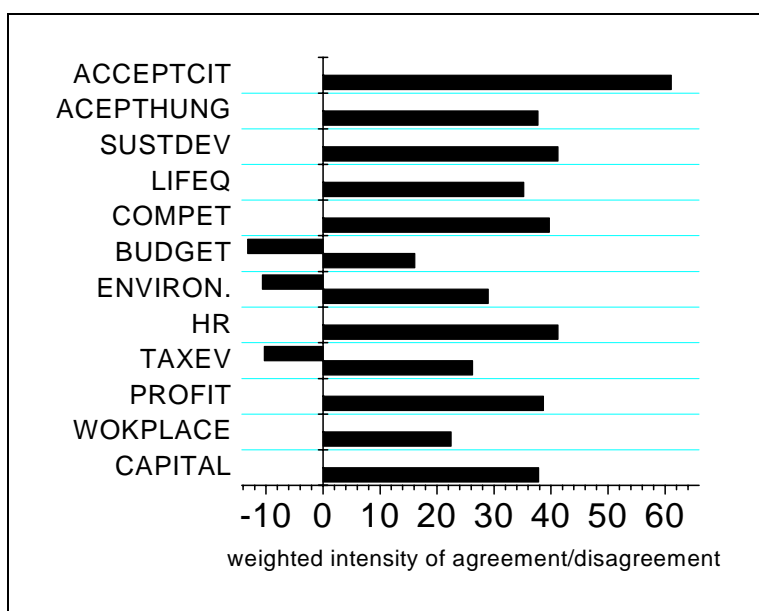


Analysing the most important concordances between the actors (Fig 2), it is obvious, that these municipalities, service providers as well as government of Vojvodina have numerous “common denominators” in development.

If we analyse the matrix of accordance, weighting the intensity of accordance by the influence of actors, than it becomes obvious that the possible coalitions could be formed by more different ways. (Fig. 3)

An analysis of relations highlights the decisive role of info-communication sector in regional development.

Figure 4 The intensity of agreement/disagreement, weighted by the influence of different actors



Analysing the weighted intensity of agreement-disagreement with different strategic aims it is obvious, that the achievement of a wide level of consensus is one of the most important strategic aim (Fig. 4). Results of analysis highlight the fact, that there is not any possibility to realise a policy without the consent of the majority of citizens, living in the area, independently of their nationality. This fact emphasises the community of fate, historic, social and economic interdependence of population, living in northern Vojvodina. It was an unanimous acceptance of importance of factors of increasing of competitively as well as increasing of attractiveness for capital insolvent. The most important driver of development –in opinion of participants of team-is the human resource development.

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**КОНЦЕПЦИЈЕ, КОНФЛИКТИ И КОАЛИЦИЈЕ
У РЕГИОНАЛНОМ РАЗВОЈУ**

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Резиме

Приватизација и придруживање Европској Унији отвара нове могућности за регионални развој Србије. Истовремено, јасно се види да је и стратегија и пракса руралног развоја Европске Уније непрегледна и веома конфузна.

Актуелна ситуација у Србији изради планова локалног и регионалног развоја даје прворазредни је значај. У том процесу кључни моменат представља утврђивање циљева за остваривање дугорочне, одрживе социо-економске развојне политике, као и идентификовање могућности широког консензуса међу кључним учесницима тог процеса.

Рад приказује могућности примене модела са већим бројем учесника у утврђивању основних стратешких циљева и савеза међу кључним учесницима регионалног развоја и има четири основна циља:

- Приказати на примеру једног конкретног региона међусобне односе и дијалектичке везе различитих социо-економских снага, учесника регионалног развоја.
- Утврдити и анализирати различитост циљева оних социо-економских учесника, који су релевантни за развој одређеног региона.
- Утврди коалиционе потенцијале и могућности учесника у циљу реализације како сопствених тако и циљева регионалног развоја.
- Тестира применљивост модерних метода које помажу доношење одлука регионалног развоја.

Резултати анализе потврђују значај примене развијених метода доношења одлука, заснованих на заједничким тежњама, осветљава значај системског приступа руралном развоју и доказује значај инфо-коминикационог сектора у повећању ефикасности капитала уложеног у руралне области.

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