Stochastic Frontier in Non-profit Performance Assessment: An Application to Homeowners Associations in Russia

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Performance assessment of non-profit organizations remains a challenge for the third sector research. The authors have argued elsewhere (E.Borisova, L. Polishchuk. Efficiency Analysis in the Non-profit Sector: Issues and Solutions (In Russian). Economic Journal of the Higher School of Economics, 13(1), 80-100) that the stochastic frontier technique commonly used for productivity analysis could serve as an adequate tool for such assessment, especially when dealing with numerous non-profits serving an identical purpose and pursuing clearly identified and measurable objectives.

A case in point are homeowners associations (HOA), which are non-profit organizations formed by real estate owners within an apartment building, local neighborhood, gated community etc. The objective of such associations is management of common property (maintenance and repair, infrastructure, hallways, elevators, parking and playgrounds, security etc.), which is an important ingredient of community development and welfare. HOAs face a nexus of problems typical for the third sector organizations such as collective action, participation and leadership, volunteerism, governance, resources etc. Assessment of their performance, apart from its significance for the third sector, self-organization and collective action/common property studies, could have valuable policy implications for local community development and residential housing reform.

HOAs are a de novo institution in Russia that is expected to complete the privatization of the residential housing sector initiated almost twenty years ago. Until recently common property management was a responsibility of municipal governments which is currently being transferred to homeowners. Despite the strong economic rationales and incentives in taking common property in homeowners’ own hands, favorable legislation, and government’s support, the process of HOA formation in Russia remains slow and the existing organizations often face formidable obstacles, both external and internal. Prominent among them is a lack of social capital, commonly interpreted as mutual trust, norms, values and networks that underpin the capacity for self-organization.

The paper reports an assessment of HOA performance based on a survey of about 100 associations located in Russia’s national capital Moscow and a large industrial city of Perm in the Northern Urals. The survey registered homeowners’ satisfaction with various services provided by HOAs, as socio-economic characteristics of residents, measures of social capital and heterogeneity, and collected data on building’s physical parameters as well as HOAs’ history, legal and institutional details. The stochastic frontier technique applied to the survey data produced relative performance measures of surveyed NGOs which exhibited significant variation, indicating presence of leaders and laggards in this nascent segment of the Russian civil society.

The paper seeks to explain such variations by various factors of potential relevance for HOA effectiveness, including (i) physical characteristics of housing (age, size and quality), (ii) institutional characteristics and history of HOA, and (iii) characteristics of tenants (socio-economic status and inequality; trust and interaction; participation in HOA work, etc.).
Regression analysis shows that social capital indeed affects performance of Russian HOAs, in agreement with predictions of the collective action theory. Moreover, those HOAs that have been created by tenants on their own demonstrate consistently stronger performance than those pre-established by developers or imposed upon tenants by local authorities; apparently the HOA formation initiative is a credible evidence of capacity for self-organization and collective management of common property. Socio-economic inequality among tenants (which is known to hamper social capital accumulation) adversely affects HOA performance. Finally, mid-size HOA are shown to be performing better than those too small to accumulate necessary resources for the organization, and too large, where social ties among homeowners are weaker and the collective action problem harder to resolve.

The paper demonstrates the potential of the stochastic frontier-based methods of performance assessment in the third sector. It also sheds light on costs and benefits of non-profit self-management in residential housing, and more generally on the prospects of the Russian civil society, for which the formation of HOAs provides a "litmus test". Finally, the paper alerts of difficulties in transplanting NGO-based residential housing solutions that are standard in the developed world, to countries and societies where social capital is in short supply, housing stock suffers from wear and tear, and residential housing and local utilities sectors lack transparency and accountability. Further analysis is required to identify "second-best" models of common property management that would properly reflect socio-economic and institutional idiosyncrasies on the ground.