How board network affects firm performance and innovation incentives in transition economics

Valorization

In accordance with Article 23 of the regulation governing the attainment of doctoral degrees at Maastricht University, this section discusses the valorization opportunities of the dissertation.

This thesis studies the role of social capital in countries experiencing radical institutional transformation such as former USSR countries. The study was based on historical empirical evidence from Armenia.

The findings showed that the institutional environment matters in determining opportunities for firms in Armenia, and it is particularly significant if we consider firms' embeddedness in social networks. Social networks serve as a mechanism for firms to cope with and overcome uncertainty of volatile market conditions. Social networks have been used to compensate for the difficulties of market exchange between firms, to access financial resources and to gain information. These networks played an important role in knowledge and skills transfer and diffusion, as well as in the effectiveness with which firms used new knowledge and skills.

The institutional aspect was presented to show how volatile and newly created market-supporting institutions were not functioning very efficiently and were not sufficient to secure a proper transition from a planned to a market economy given the inherited soviet past. As the transition was not smooth and gradual, it has disrupted not only the "bad" institutions, but also the "good" ones such as the science and education system that Armenia had developed during the soviet past. The thesis discussed that the lack of experience and understanding of the soviet past caused lost opportunities while creating a new national innovation system.

Today, when societal transition is a hot topic for both developed and developing countries, studying post-soviet experience provides insights on the hidden factors that affect the transition such as past experience, people's mentality and social networks. The contexts and conditions may differ from country to country, yet some lessons learned from the former-soviet countries can be very useful and applicable for steering the transition processes in other countries. For example, in the era of disruptive technologies, developed countries are transitioning to a more technological society, while some developing countries are passing from closed to market-supporting institutional changes (e.g., Cuba, Burma). The examination of former soviet countries including Armenia, showed that one of the most important aspects is to understand and evaluate the country's existing potential and create better conditions to secure its transformation into a new system (e.g., transformation of National Innovation System).

Neo-liberal reforms and the lack of state policies in promoting the country's innovation system left economic agents alone to find solutions. In this situation, pre-existing social networks became the only trustworthy channels with which economic agents were able to observe reality, and deal with ambiguity and uncertainties arising with the process of economic transformation. The central concern of this study was to

analyze how newly privatized firms were able to utilize the local networks, and what kind of value these networks provided to those firms.

One of the important inter-firm networks, examined this thesis, is the board members network (the network formed by individual board members who have membership on one or more firm boards). This study extends the application of social capital theory to board networks which were relatively less examined compared to alliance literature. Applying insights from social capital theory, the study proposes that "structural" and "content" attributes of board member networks are key levers underlying the level of social capital presented by these networks for firms. The rationale behind these two aspects of the social capital is that there is a value how a firm is positioned in the board network levels as well as what are the qualities of the partner firms. In addition, it was found that there is a complementarity between a firm's position in the network and certain qualities possessed by its partners. For example, if a firm is embedded in a network where linked firms have greater financial resources, the focal firm has a greater likelihood of accessing financial support from partners than a firm that is not connected to a "rich" network.

One of the interesting findings is that the analysis shows that social capital may have differentiated impact on firm finances vs. innovative performance: for example, our results show that network closure is negative for firm innovation, while it has a positive impact on financial performance. Interestingly, for financial performance, findings suggest that both structural holes and network closure are important. This supports arguments related to transition economies, where firms need to pass through re-structuring in order to adapt to a new and turbulent environment caused by the collapse of the centralized planning system. Market instability and a volatile institutional environment (e.g., underdeveloped banking system, limited access to formal financial support) enhance the value of reciprocal ties, as they are credible guarantees for market exchange. In this case, network closure provides more opportunities for reciprocity. However, at the same time, a brokerage position also provides the firm more opportunities to navigate and to access resources that others are not able to access, which became more important when a firm is seeking new and innovative solutions. Therefore, when firm innovativeness is measured, network closure is an impediment as it opposes the brokerage position.

Corporate governance was a new phenomenon in Armenia, and the board governing rules and regulations are still under consideration. The results of the studies have an implication for the design of these rules. If the board network became too cliquish and homogenous in terms of industry, for example, it can induce a big concentration of market power in a small number of firms. This will reduce the chances of firm entry in the market outside of the "group". Similarly, if the distribution of betweeness centrality became too skewed, there will be a small number of firms that control information and resources available through board network. Depending on the structure of the board network, it can potentially produce either economic benefits or inefficiencies.

As the market-supporting reforms in transition economies started with privatization reforms which created conditions for unequal distribution of national property and wealth, the board directorship can be a useful instrument to soften or harden the

further evolution of the power concentration in the economy. In addition, due to the weak institutional set-up, board networks were instrumental for the firms in Armenia to access various resources they depended on to reduce environmental uncertainty and maintain their position in the market. Yet, trough creating better board membership rules targeted towards diversity and inclusiveness, it can offset the initial power concentration in the economy and create better opportunities for equal access to capital and competitiveness.

The results and the empirical evidence provided by this study can be implemented to improve and design better g board governing rules in the transitional countries, where the corporate governance is a relatively new institution.