

Abstract

The Mediating Role of Social Capital on University Spin-Off Performance. Lessons from Regional Universities in Japan

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Universities have taken a central role in the new knowledge economy as creators and producers of knowledge especially in the areas of research and technology. As part of a nation's innovation system, a lot of emphasis has been placed on developing efforts of efficient technology translation from the knowledge produced from within or from outside the university in forms of intellectual property and university spin-off companies (USOCs) with USOCs offering the fastest way of translating research into innovation.

However, USOCs face a number of hurdles in trying to translate research into innovation mainly because the USOCs lack the necessary resources and the legitimacy needed for firm development and competitiveness. Therefore, a certain level of support should be provided to facilitate the acquisition of resources. Previous studies have point out those new firms in areas that have an entrepreneurial orientation, usually require low level of support since they have prior links and relationships with resource providers which enable the new firms to acquire resources and provide legitimacy. However, an environment that does not have high entrepreneurial orientation, requires a high level of support for the spin-off creation, thus in the absence of inherent links and relationships, the university centered institutions should provide the necessary social capital for USOCs to leverage to create links and relationships that would enable them to acquire the needed resources and also provide the needed legitimacy needed for spin-off process.

In this respect beginning with the adoption of the Bayh-Dole act, the Japanese government embarked on a series of reforms in order to transform universities into more corporate like structures, where the universities have more autonomy in the way they administered research funds and to encourage and motivate professors and students to translate or push their research ideas into innovations. As a result of the reforms a number of spin-off support institutions and bridging subsystems were also initiated, namely but not limited to the incubation centers, the technology licensing offices (TLO), liaison offices, and science parks that constitutes the internal system of the

UCIS, with the aim of providing essential support that would enable the effectual creation and development of USOCs.

Research has pointed out that Japan has low entrepreneurial orientation and therefore the USOCs require high level of support to cater for their lack of inherent social capital. Therefore this paper argues that the firms employ the use of social capital inherent to the UCIS as a substitute to the individual social capital, and also analyzes the impact of using the institutional social capital on the performance of the new firm. Specifically the relationship between the bridging systems regarded as internal institutional social capital in relation to the USOC sales and capitalization performance is quantitatively measured. The empirical analysis reveal that there is a stronger correlation between using external institutional social capital and the time taken to acquire resources than between using internal institutional social capital and the time taken to acquire resources. On the other hand, a stronger relation was found to exist between the internal institutional social capital and CAGR. These findings imply that new firms seek out patronage of other social networks in order to acquire resources, the external institutional social capital are effective in accessing resources in a timely manner, however, internal institutional social capital has a long term effect on the performance of the new firm as shown in its ability to recapitalize.

The major academic contribution of the thesis is that it draws on the social capital metaphor to empirically analyze the mediating role of social capital in the innovation process. It also introduces a new concept arguing that institutional social capital can take the place of inherent or individual social capital to firms in areas of low entrepreneurial orientation.

It is important for practitioners in the development of the UCIS to build up social capital with resource providers not only tangible but intangible aspects as trust, which can then be employed by the new spin-off firms.