Macrothink Institute™

Business Management and Strategy
ISSN 2157-6068
2014, Vol. 5, No. 1

Impact of Social Capital on Innovation Performance: Industrial Firm's Comparison

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Received: March 12, 2014 Accepted: March 26, 2014 Published: June 5, 2014

doi:10.5296/bms.v5i1.5280 URL: http://dx.doi.org/10.5296/bms.v5i1.5280

Abstracts

The study has tested by correlation coefficient index a firm's comparison according to their performance on innovation, and the measure has taken the online sources network. The study has 365 firms observation including five special industries that were planned allowing by U.S. and China industry. Was used as a resources the link of Baidu, blogs and Wikipedia to collect the final information, the findings was positive with a correlation between several significance data result; and important association on the variables performances.

Keywords: Social Capital, Firms' cooperation, Innovation performance, Industrial performances

1. Introduction

In the study the starting point is the notion that social network plays a key role in the innovation process. Encourage new products source, the new firms as well as corporate entrepreneurs who engage in strategic initiatives in established companies may draw upon extensive and rich personal and industrial integration (Anderson, A.R et al., (2007); Batjargal, B. (2007).

Innovation has relevant effect not only on products and processes, but is also relevant to the practical marketing and the organizations. Aldrich, H.E. and Martinez, M.A. (2001), there are several types of innovation on this area as: new methods of production, new products, the exploitation of new markets, new sources of supply and new ways to organize industrial business as conformed by Colombo, M.G. and Grilli, L. (2005).

The main track of analysis in this study is as follows. In the following section we discuss the key network concepts, including social capital. Next, the innovation addressed the essential role of knowledge in the discovery and insight of improvements. Networks are potential to achieve the knowledge; network and innovation have relationship between each other.

On the First step was reviewed the literature on group network and its firm's innovation and internal flow performances. On the next step, provide theoretical model and several hypotheses, and then collected firm's data, which was implemented by the study method; and then the next step, discuss the results, and finally draw some conclusions.

2. Conceptual Background and Study Framework

The social network analysis (SNA) used is important indicators where the study includes the relevant level and their closeness between the significance of the network's structure and the measure as key of social capital network. Level of the significance takes relevant connection to variables tested on the correlation (table 2), the tested measure between the significance where the insight significant variables are related of the range location "in between" as mentioned previously (Presutti, M et al., 2007). A study conducted by Zahra, S.A et al., (2006); addressed the particular improvement of the level between significance measures (Vivarelli, M. 2004). The significance is well thought out particularly suitable on the key flow information, which is under power situation. The study motivation through several earlier studies on the relationships between variables significance, significance level, innovation and performance, the relevant performance of empirical measure on social network, the firms should follow a social network to perform a framework and collect working data to evaluate it. The study context views the firm's relation according of their need on innovation, capital, and firm framework implementation as shown in the next figure 1.

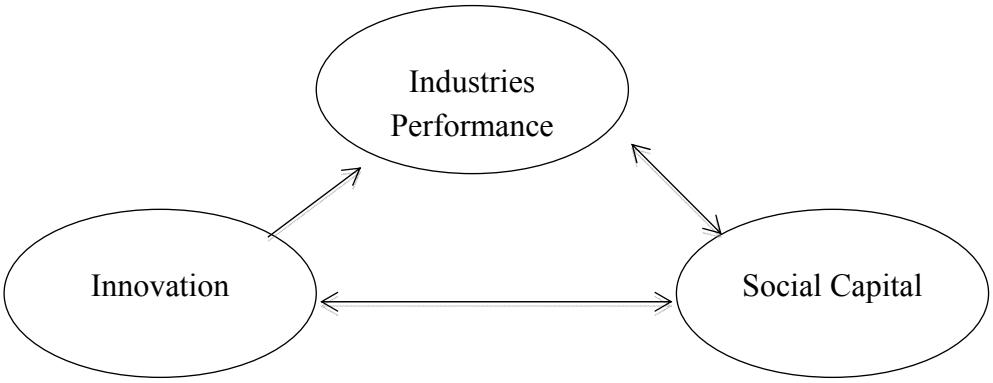

Figure 1. Study Framework

3. Literature Review

Additional possibility to evaluate is time and/or growing information on capital network. On the source of a literature review, Shepherd, D.A et al., (2000) argue that, in firm's value should be from solid ties as explained by S. Rick Fernandez (2014).

Thus, Shane, S.A. and Cable, D. (2002) propose that network benefits develop from the exploitation of strong ties to the exploration of weak ties.

Kim, P.H. and Aldrich, H.E. (2005) mentions two primary firm's benefits of collaboration: resource sharing and knowledge information insights.

Recently, Fullerton, R.R., Wempe, W.F., 2009 has contributed to the discussion on the consequences of a solid network with trust and strong ties (López-Mielgo, N., et al., (2009); Peters, B., 2008) vs. a sparse network with few redundancies and weak ties (Damanpour, F., 1991; Fullerton, R.R., Wempe, W.F., 2009) on the performance of entrepreneurial ventures.

Entrepreneurs might consider the effects of risk and the significance variables by upcoming others for help and be a guideline. While there are various definitions of social capital in the literature (Drejer, A., 2002). A definition of social capital at the individual level 'as the sum of the actual and potential funds embedded within, available through and derived from the network of relationships possessed by an individual or a social unit' (Jin, Z., 2004).

The study by Ward, P.T., Duray, R., (2000) is exclusion and complement this study results. Preview studies focus on social network is significantly growing the probability to use the performance of the business purpose.

4. Implications for the National Economy

On economic growth productivity have long influence to generate innovation. Very rapid growth in capital performance without productivity growth leads to a decline in the profitability of capital behavior. As West, A., (1992) pointed, "Growth slowdowns as total factor productivity (TFP) growth slowdowns." China's economic future, the productivity is now critical.

China has achieved in building original national champions in a number of high technology

industries, China's economy in a global perspective shows that China still has a long way to go in terms of productivity improvement.

China's labor productivity has improved a lot over the past decade, but still far behind the productivity performance of developed economies. Indeed, after some thirty years of economic reform, China's labor productivity is still behind such countries as e.g. Thailand, Colombia, and Morocco. The economy has actually relocated further away from the technological frontier because of its growing capital ineffectiveness.

Although the econometric findings are hybrid, Yilmaz, C., et al., (2005) has concludes that the joint effect of human capital and social capital enhances the existence ventures of newly founded businesses. Therefore, on the study has been proposed the following hypotheses:

Hypothesis 1: The speciation levels innovation processes have being linked by the level of product innovation.

Hypothesis 3: The speciation levels marketing innovation have being linked by the level of product innovation.

Hypothesis 4: The speciation levels innovations have being linked with an improvement of innovative performance.

Concerning to the marketing product's innovation link, the study could not discover a clear study as an example to interact. There is indeed a mutual support of innovation but it is more common that product innovations are shaped through changes in the markets and customer prospects. Increased markets motivate customers as significance to the marketing performance fig. 2.

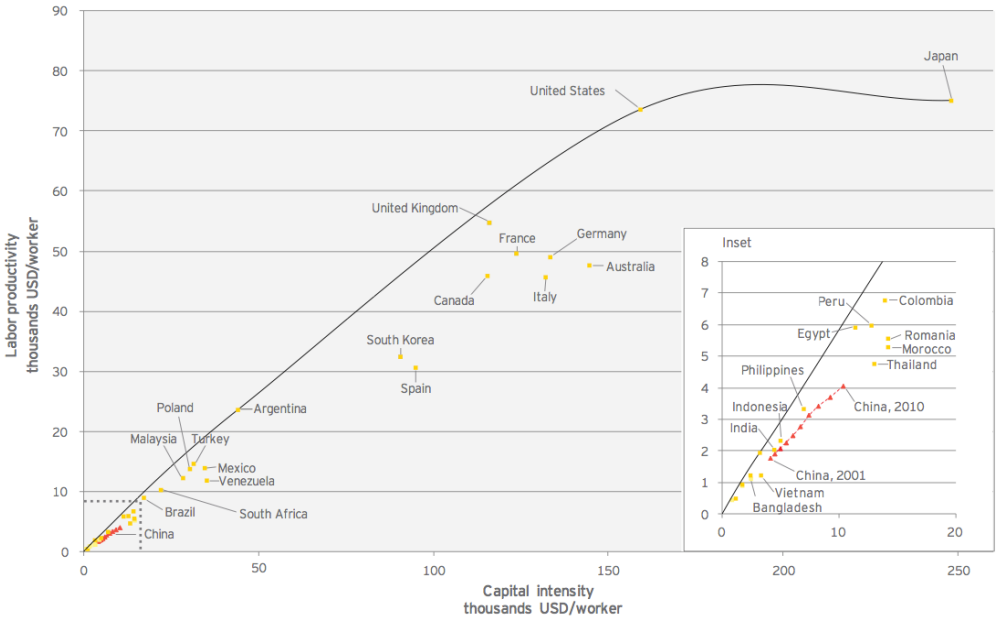

Figure 2. World Bank, Ernst & Young analysis.

Innovative performance is the pattern of overall organizational achievements as a result of renewal and improvement efforts, considering different aspects of firm innovation, i.e. products, processes, organizational structure, etc. Therefore, innovation performance is a composite concept (Yilmaz, C., et al., (2005) based on several performance guides.

5. The Effects of Social Capital

Young small firms are critical to access to importance resources and achieve or build innovation on the industries, which usually those firms are suffer from the resources of capital finance, a skilled workforce, or necessary equipment for R&D, (Miller, W.L., 2001), above parameters are critical for firms growth. Several studies have done the impact of social capital and the financial situation of of start-ups enterprises. Stevenson, H.H., Jarillo, C.J., (1990) argued that via network potential investors were able to screen and evaluate the entrepreneurs and their business insights, which was the base of the investment decision. Quadros, R., (2001) reports that US firms seeking to float on the performance exchange that the level of social capital is positively and significantly correlated to the level of funds. However, this result could only be partially confirmed by Peters, B., (2008), who got some proof for a relationship between social capital and innovation, but no links between social capital and investment.

6. Data And Methodology

In order to the effect of variances, the 365 firms researched in the study the following firms listed from U.S. & China performance focus on platform to collect a general industrial data, and address an analysis on market sector. According to express an empirical findings, on the selected industry, there are more than 25 firms of each industry where were tested. Present study acquired 40 firms including internal firms income flow, where the research observation avoid the impact that can be presented by the market variances. Was realized the features several sources and in the study were collected the firms' online as data. Each collected firm results are an important level Vivarelli, M. (2004). Data from the sources has been collected periodically according to the time, early 2013 to the end of 2013. Table 1 shows the general information of the researched firms of the study.

Table 1. Firms Quantity Data

United States Industry Performance		China Industry Performance	
Industry	Firms Quantity	Industry	Firms Quantity
Venture Capital	35	Venture Capital	40
Consulting	35	Consulting	40

United States Industry Performance		China Industry Performance	
Energy	35	Energy	40
Chemical	35	Chemical	40
Service	25	Service	40
Sum	165	Sum	200

In addition to online network data, the performance of each firm is measured by its time according to theirs yearly income, market capitalization and yearly net revenue. Marketplace denotes the society's consent on the assessment of a firm's equity. Community organization, ownership significance is easily and sold over the acquisitions, the marketplace tools, which decide a value of the firm's segments. Market income flow is outlined as the segment value multiplied by the number of segments, specifying a whole significance of the firm's outstanding segments. Marketplace flow, yearly income, and yearly net revenue are key meters of firm's flow performance. So, marketplace flows as a direct contemplation of the significance of firm's resources. As the study novelty variable used the innovative data ranking ability, which provide essential information to build insights to future studies.

7. Result

The study analysis of 5 industries indicated that there was even greater variation in cost structures at relevant level. E.g., labor's share ranges from a low of about 5.5 percent in coking, coal gas and petroleum processing to a high of 53 percent in agriculture. Capital's share of total cost also varies considerably across industries, ranging from 5.1 percent in agriculture to 43.5 percent in real estate, leasing and commercial service.

Generally, labor's share of total cost, with a few exceptions, is less than capital's share. Intermediate inputs (raw materials, intermediate goods, energy, and services) on the other hand, have the largest share in total cost in almost all sectors and industries.

Companies in China have long known that the low wage growth model was coming to an end. Average labor costs have more than doubled since the beginning of 2010. Remunerations have been pushed up by a long-term drop in the aggregate labor force, combined with a rapid reduction in rural surplus labor that has until recently provided an unlimited source of low-priced labor. Even the global financial crisis managed to slow wage inflation only marginally.

Table 2. Correlation of Industrial performance in the United States and China Countries (Data from 2013)

United States Industry Performance							China Industry Performance						
	Market Capabilities		Annual Revenue		Annual Net income			Market Capabilities		Annual Revenue		Annual Net income	
Industry	Google	Baidu	Google	Baidu	Google	Baidu	Industry	Google	Baidu	Google	Baidu	Google	Baidu
Venture Capital	0.611**	0.09	0.612**	0.084	0.434**	0.075	Venture Capital	0.134	-0.198	-0.180	-0.240	0.053	-0.197
Consulting	0.32*	0.252	0.376*	0.512**	0.222	0.175	Consulting	0.542**	-0.60	0.526**	0.014	0.596**	-0.095
Energy	0.41*	0.467**	0.391*	0.400*	0.286*	0.315*	Energy	0.470**	-0.90	0.487**	-0.029	0.382*	-171
Chemical	0.458**	0.158	0.273*	0.301*	0.331*	0.053	Chemical	0.064	0.194	0.051	0.70	0.179	0.271
Service	0.312*	-0.113	0.133	-0.123	0.196	-0.192	Service	-0.013	0.294	-0.170	0.248*	-0.192	0.017

Note: Significance at: $^{*}p$, 0.05, $^{**}p$, 0.01, $^{***}p$, 0.001 and $^{****}p$, 0.10

8. Discussion

Capital is still relatively significant (0.611**) and correlated according to the correlation coefficient index (table 2), and the comparison with china performance, which is not correlated has lack where firms need more investment support, as well as chemical manufactures have improvement consequence, which include the moderate significance (0.458**), and the comparison of both countries may shown that on the same industry, as energy are weak correlated in the U.S. (0.41*) and moderate correlated in China (0.470**), which provide good performance on the market and need more performance to grow independently.

As the correlation coefficient table addressed several industries are correlated, and some are not correlated, but, several of the correlated ones, are moderate (**) and others are weak correlated (*), it is ensures that within the industries the comparison between U.S. and China request to be more interested to develop activities' firms, as above those industries will help to grow their economy and interact with strong significance.

Although market mechanisms have provided increasingly important stages, where the resources tested mention that annual revenue in U.S. are moderate correlated between venture capital (0.612**) and in other side, using other web sources have been found that annual revenue are moderate correlated with consulting industry ((0.512**), and with a comparison with China just the study found with one web sources that consulting and energy industries are moderate correlated with annual revenue, which started to play an increasingly important requirement to have better performance.

As above can be seeing that the annual net incomes are significant correlated with capital venture in one side according to the U.S. performance (0.434**), and in the other side the consulting in China (0.526**).

This minimal behavior situation also keeps the cost of capital for firms to be evaluated on the future years. Between 2000 and the end of 2009, the average loan interest rates was only 5.95 percent, compared with 9.52 percent in the period 1990 to 1999.

How rising costs impact on firms depends on their structure cost. Comparing the both countries manufacturing and services industry shows that input cost stakes□ significantly. Related with manufacturing, labor and capital make up a greater share of costs for the industrial services.

9. Conclusion

This empirically study tested the use of social capital among firms collecting data the 365 observation of new firms, was tried to answer 2 research questions: First, do firms players more often used social capital than other resources? Second, what are the effects of social capital used in the venture performance? Table 2 summarizes the results.

With supplementary information, the saved information on the time would be suitable to research the weak, moderate and strong performance relationship among correlated industries. In order to discover variables position it request different assets such as: warranty with the objective to blow up the innovation, over the firm's positive behavior. As above, can be concluded that these should be a point to the future studies.

The study exposed a considering way testing and measuring the firm's performances selecting carefully the next cooperation to share relevant information. By collecting the network sources data, have been proposed a clear tool to contribute to each firm a financial support.

References

Aldrich, H. E., & Martinez, M. A. (2001). 'Many are Called, but Few are Chosen: An Evolutionary Perspective for the Study of Entrepreneurship', *Entrepreneurship Theory and Practice, 25*(4), 41-56.

Anderson, A.R., Park, J., & Jack, S. (2007). 'Entrepreneurial Social Capital: Conceptualizing Social Capital in New High--tech Firms', *International Small Business Journal,* 25(3): 245-72. http://dx.doi.org/10.1177/0266242607076526

Batjargal, B. (2007). 'Internet Entrepreneurship: Social Capital, Human Capital and Performance of Internet Ventures in China', *Research Policy, 36*(5), 605-618. http://dx.doi.org/10.1016/j.respol.2006.09.029

Colombo, M. G., & Grilli, L. (2005). 'Founders' Human Capital and the Growth of New Technology--based Firms: A Competence--based view', *Research Policy,* 34(6): 795-816.

Cooper, A.C. and Bruno, A.V. (1977) 'Success Among High--Technology Firms', *Business Horizons,* 20(2): 16-22. http://dx.doi.org/10.1016/0007-6813(77)90096-9

Damanpour, F. (1991). Organizational innovation: a meta-analysis of effects of determinants and moderators. *Academy of Management Journal, 34*(3), 555-590. http://dx.doi.org/10.2307/256406

Drejer, A. (2002). Situations for innovation management: Towards a contingency model. *European Journal of Innovation Management, 55*(1), 4-17. http://dx.doi.org/10.1108/14601060210415135

Fullerton, R. R., & Wempe, W. F. (2009). Lean manufacturing, non-financial performance measures, and financial performance. *International Journal of Operations and Production Management, 29*(3-4), 214-240. http://dx.doi.org/10.1108/01443570910938970

Jin, Z., Hewitt-Dundas, N., & Thompson, N. J. (2004). Innovativeness and performance: Evidence from manufacturing sectors. *Journal of Strategic Marketing, 12*(4), 255-266. http://dx.doi.org/10.1080/0965254042000308075

Kim, P. H., & Aldrich, H.E. (2005). 'Social Capital and Entrepreneurship', *Foundations and Trends in Entrepreneurship, 1*(2), 55-104. http://dx.doi.org/10.1561/0300000002

López-Mielgo, N., Montes-Peón, J. M., & Vázquez-Ordás, C. J. (2009). Are quality and innovation management conflicting activities? *Technovation, 29*(8), 537-545. http://dx.doi.org/10.1016/j.technovation.2009.02.005

Miller, W. L. (2001). Innovation for business growth. *Research Technology Management, 44*(5), 26-41.

Peters, B. (2008). Innovation and firm performance: An empirical investigation for German firms. Working Paper, Center for European Economic Research, Mannheim, Germany.

Presutti, M., Boari, C., & Fratocchi, L. (2007) 'Knowledge Acquisition and the Foreign Development of High--tech Start--ups: A Social Capital Approach'. *International Business Review, 16*(1), 23-46. http://dx.doi.org/10.1016/j.ibusrev.2006.12.004

Quadros, R., Furtado, A., Roberto B., & Franco, E. (2001). Technological innovation in Brazilian industry: An assessment based on the São Paulo innovation survey. *Technological Forecasting and Social Change, 67,* 203–219. http://dx.doi.org/10.1016/S0040-1625(00)00123-2

S. Rick Fernandez (2014). Commercial Cluster Integration Initiative: To Develop International Diplomatic Commercial Relation Between Latin America "CELAC" and China., *International Journal of Social Sciences and Education, 4*(2), 443 – 456.

Shane, S. A., & Cable, D. (2002). 'Network Ties, Reputation, and the Financing of New Ventures', *Management Science, 48*(3), 364-81. http://dx.doi.org/10.1287/mnsc.48.3.364.7731

Shepherd, D.A., Douglas, E.J., & Shanley, M. (2000). 'New Venture Survival: Ignorance, External Shocks, and Risk Reduction Strategies', *Journal of Business Venturing, 15*(5-6), 393-410. http://dx.doi.org/10.1016/S0883-9026(98)00032-9

Stevenson, H. H., & Jarillo, C. J. (1990). A paradigm of entrepreneurship: entrepreneurial management. *Strategic Management Journal, 11*(5), 17-27.

Vivarelli, M. (2004) 'Are All the Potential Entrepreneurs So Good?', *Small Business Economics, 23*(1), 41-49. http://dx.doi.org/10.1023/B:SBEJ.0000026023.11752.a9

Ward, P. T., & Duray, R. (2000). Manufacturing strategy in context: environment competitive strategy and manufacturing strategy. *Journal of Operations Management, 18*(3), 123-138. http://dx.doi.org/10.1016/S0272-6963(99)00021-2

West, A. (1992). Innovation Strategy. Prentice-Hall International, London.

Yilmaz, C., Alpkan, L., & Ergun, E. (2005). Cultural determinants of customer- and learning-oriented value systems and their joint effects on firm performance. *Journal of Business Research, 58,* 1340-1352. http://dx.doi.org/10.1016/j.jbusres.2004.06.002

Zahra, S.A., Sapienza, H. J., & Davidsson, P. (2006) 'Entrepreneurship and Dynamic Capabilities: A Review, Model and Research Agenda'. *Journal of Management Studies, 43*(4), 917-55. http://dx.doi.org/10.1111/j.1467-6486.2006.00616.x