VENTURE CAPITAL IMPACT ON THE REGION’S COMPETITIVENESS

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Abstract

Venture capital is widely considered as having important role in financing promising ventures. New technology-based ventures with the cutting-edge research and technology are the background of knowledge-based economy, moreover – one of the powerful way to ensure region’s competitiveness. Having high risk as well as attractiveness due to high return on investment such ventures are very interesting for venture capitalists as well as private investors, so called business angels. Many scientists focus on analysing competitiveness of particular region. But only few papers analyze the tension between venture capital and regions economical development and growth. Meanwhile, the present paper deals with the venture capital possible impact on regions competitiveness. Thus, the article captures: analysis of venture capital features and the impact on region’s competitiveness.

Keywords: venture capital, region’s competitiveness, business angels, technology-based firms.

Introduction

Technology-based ventures acting in such industries like biotechnology, nanotechnology, ICT and electronics boost the region’s economical development as well as increase competitiveness and bring international endorsement. Having high risk as well as attractiveness due to high return on investment such ventures are very interesting for venture capitalists and private investors - so called business angels. In practice, new ventures in the early stage of business development encounter certain financial obstacles. Therefore, the private equity injections are needed, and venture capital firms or business angels are most suitable ones, as bank loans are usually inaccessible due to lack of capital or negative cash flow. Hence many nonfiction literature bodies emphasize the importance of financing in the early stage of new venture development, because of its important role in enhancing region’s economical development. For instance, Wonglimpiyarat (2007) argues, that ‘Venture capital improves the nation's innovative capacity by making investments in early stage businesses that offer both high potential and high risk.’

There are two aspects of the topic of present article: venture capital and region’s competitiveness. These two things were discussed separately by many scientists. A lot of researches were carried out on the venture capital conception, categorisation of business angels (Wright, Wethead, & Sohl, 1998; Sohl, 2002; 2003; Freear, Sohl & Wetzel, 2002; Mason, 2005; Wonglimpiyarat, 2007), as well as their financing features. The relationship between entrepreneurship and venture capital was scrutinized by Wright et al. (1998). Especially, much attention is paid on analysing the venture capital market in US, particularly, focusing on its upswings and downturns in the last twentieth century decade (Florida & Kenney, 1988; Sohl, 1999, 2002; 2003; Freear et al. 2002) and one of the most well known venture capital cluster in Silicon Valley (Cohen & Fields, 1998; Florida & Kenney, 1988; Koh, F.C.C., & Koh W.T.H., 2002). Moreover, there are many papers, which have scrutinized the venture capital market in worldwide regions. For instance, Mason and Harrison (2002) have explored the United Kingdom informal venture capital market and its geographical location as well as the efficiency of investment schemes. The genesis of Swedish venture capital market has been analyzed by Fredrikson (1997). Wonglimpiyarat (2007) has explored the management of venture capital funds and schemes in Thailand. Tsukagoshi (2008) has analyzed Japanese business angels’ effect on venture capital market and their role in financing the early stage business. The Norwegian business angels’ cluster was inspected by Sorheim and Landstrom (2001). Their analysis was based on survey of 425 investors. Brzozowska (2008) has made a comparative analysis between business angels in Poland and informal venture capital market in European Union. She concludes that United Kingdom, France and Germany are the ones with the most developed informal venture capital market in Europe.

Meanwhile, the competitiveness of regions is widely analyzed in the case of particular region by many authors (Porter, 1998, 2002; Kronthaler, 2003; Porter, Ketels & Miller, 2004; Kochetkov, 2005; Brykova, 2006; Lester & Sotarauta, 2007). The growing number of Lithuanian authors has contributed to this topic too (Snieska, Čičikaitė & Neverauskas, 2002; Macys, 2008; Navickas & Malakauskaite, 2008; Snieska, 2008; Rutkauskas, 2008). The main ideas of all above mentioned papers partially refer to the topic of present paper’s. Only few papers have explored venture capital as the key factor for leveraging innovation and spurring region’s economical growth (Florida & Kenney, 1988; Florida & Smith, 1990; Bygrave & Timmons, 1992; Lerner, 2001).
Yet, the topic of this paper “Venture capital impact on the region’s competitiveness” remains actual and new, because the tension between venture capital and region’s competitiveness is not analyzed in-depth. Thus the scientific problem arises: how venture capital affects the particular region’s competitiveness. Therefore the purpose of this paper is to analyze the possible impact of venture capital on regions competitiveness.

The key method used in this paper is comparative analysis of scientific literature, documents and reports. The article is organized in the following manner: first section deals with the venture capital conception and its classification; second section explores the region’s competitiveness background; third section outlines the tension between venture capital and region’s competitiveness and finally the main conclusions are presented.

**Venture capital and its categorisation**

Venture capital market has a fundamental background in U.S. and according to the report prepared by Global Insight, Inc. (Venture Impact: The Economic Importance of venture capital backed companies to the U.S. economy), venture capital is playing a significant role in nourishing the U.S. economy. Venture capital backed companies boost America’s economic strength by creating jobs and revenue as well as underpin cutting-edge research and development.

There are lots of authors analysing venture capital as the key factor for region’s economical growth, which directly affects its competitiveness. The term ‘venture capital’ refers to high return on investment to support business in its early stage and maturity (Bygrave & Timmons, 1992). Meanwhile, Wonglimpiyarat (2007) describes venture capital as ‘pre-IPO equity capital provided by professional investors’. Fredriksson (1997) in the venture capital firms’ definition has emphasized three elements: time limited (1) equity capital investment (2) in high-risk projects (3). Whereas, Amit, Brander and Zott (1998) emphasized the entrepreneurial aspect of investee: ‘venture capital firms provide privately held “entrepreneurial” firms with equity, debt, or hybrid forms of financing, often in conjunction with managerial expertise’. There is no doubt that the key element of venture capital is financing innovative and promising companies or new ideas that could not be financed by banks, which typically require five to eight years project to be launched (Wonglimpiyarat, 2007).

The term venture capital in this paper refers to the venture capital funds, private investors (business angels) and public institutions that typically finance new and rapidly growing companies with innovative background.

Analysing non-fiction literature informal and formal venture capital can be distinguished (Burgyl, 2000; Mason, 2005). The former is so called business angels, and the latter covers formal venture capital funds as well as public institutions (Mason, 2005). Informal venture capital market is widely discussed in the literature by Mason (2005), Sohl, J. (2002, 2003), Freear et al. (2002). Different classification of informal venture capital varies in different papers. According to Sorheim and Landstrom (2001), informal investors embrace four different categories regarding their competence and involvement in investment: Lotto investors – investors with low investment activeness and having limited investment experience in start-up and business development; Traders – active investors, but with limited investment experience in start-up and business development; Analytical investors – investors with low investment activeness, but having high competence; and Business angels – active investors with very high competence in start-up and business development. Whereas, Wright et al. (1998) have distinguished ‘habitual entrepreneurs’ and Angel Investors, and contend that ‘Successful, wealthy entrepreneur is the one who is supposed to be a business angel’.

According to Mason (2005), business angels can be described as ‘high net worth individuals who invest their own money, along with their time and expertise, directly in unquoted companies in which they have no family connection, in the hope of financial gain’ (Mason 2005). It means that wealthy individual not only provide the entrepreneur needs with the money, but also is its immediate consultant. The main feature that distinguishes business angels from institutional investors is that he or she invests his/her own money. Seed financing is usually business angel deal. Sohl (2002) contend that ‘If the goal is to create a vibrant market to spur the commercialization of innovation, one needs to look no further than initiatives directed at the angel investor’.

Freear et al. (2002) reviewed 20 years research on the business angel segment. Few aspects can be discerned: lack of information about active angel; lots of research about attitudes and characteristics of business angel; more attention needs the informal market dynamics. Whereas Mason and Lansstrom (2006) have discerned two generations of studies concerning business angels: first generation studies revealed that business angels market is heterogeneous and they vary throughout the countries. While second generation of studies covers three different categories: studies with theoretical perspective, studies with policy issues and
studies concerning informal investment phenomenon (investment risk and return, relationships between investor and entrepreneur and others).

Meanwhile, the formal venture capital market has been classified by Burgyl (2000) and McCahery and Renneboog (2003). Burgyl (2000) has sorted investors accordingly their investment involvement in business stage: early stage funds usually invest in seed and early stage of business development, while, Development funds invest only in business or product development and generalist funds invest in various stage of business development. Whereas McCahery and Renneboog (2003) have classified venture capital funds as follows: small business investment companies, financial venture capital funds, corporate venture capital funds, and Venture capital limited partnerships.

Burgyl (2000) describes venture capital as the intermediary between institutional investor (such as pension funds, banks, insurance companies) and Portfolio Company. Investment screenings, negotiation, making agreements, controlling investments and assisting to management team are the most common functions of venture capital.

Venture capital firms generally are private partnerships or closely held corporations. It is an investment pool which covers private and public pension funds, endowment funds, foundations, corporations, wealthy individuals, and foreign investors.

Sohl (2003) argued that pre-seed financing comes from founders, business angels’ funding usually is in seed/start up and early stage of business development and the later stage funding is usually from venture funds. Wonglimpiyarat (2007) has endorsed ‘Some venture capitalists focus on later-stage investment to help the companies grow to a critical mass to attract public financing through a stock offering’.

In scientific literature, many authors underpin the existence of capital gap which occurs in the early stage of business (Sohl, 2002, 2003; Mason & Landstrom, 2006). For example, Sohl (2003) discerned two financial gaps, which emerge due to market imperfections. First financial gap is between the need of early-stage ventures and the suppliers of early-stage capital. The promising entrepreneur needs money to move the innovative product from research platform to marketplace. According to above mentioned author, ‘in most cases the cost to successfully commercialize a high-tech innovation is at least 10 times the cost of the original research’ (Sohl, 2003). Second market inefficiency is an information gap, it appears when ‘suppliers of capital seeking a degree of anonymity, often in conflict with the need to maintain quality deal flow, information flows very inefficiently’ (Sohl, 2003).

Meanwhile, the alternative sources of financing of high technology-based companies are: 1) Internal source of financing. At the early stage (seed or start-up) the entrepreneurial firms are generally funded by families, friends or using founder’s money. 2) Bootstrapping - defined as creative means to acquire financial sources, borrowing money excluded. The term ‘bootstrapping’ covers: reduced dividends, credit card debt, low rental space etc. (Freear et al., 2002); 3) Bank loans - usually some obstacles arise as banks require guarantees for taking loans. For the fledgling ventures usually it is difficult to prove their liquidity as they do not have their own real assets or their cash flow is negative at the early business development stage. In addition, Ueda (2005) contend that there are two contradictions banks versus venture capital. On the one hand, venture capitalist can evaluate the entrepreneur’s project more accurately than the bank. At the same time venture capitalist can also threaten to steal it from the entrepreneur.

Having in mind what was outlined above, we can conclude that venture capital is very important actor in financing new high technology-based ventures. In the next section we will analyze the background of region’s competitiveness.

### Background for region’s competitiveness

In order to show the relationship between the venture capital and region’s competitiveness, first we will explore the concept of ‘competitiveness’ and the theoretical background for region’s competitiveness. Competitiveness is threefold: business, industry and nations. The competitiveness aspect has been embedded into the regional policy schemes at the European and national level. According to Macys (2008) ‘Growing interest has emerged in the ‘regional foundations’ of national competitiveness, and with developing new forms of regionally-based policy interventions to help improve the competitiveness of every region and major city, and hence the national economy as a whole’. Bogdanova and Orlovska (2008) argued that ‘competitiveness of a nation embraces trade and foreign direct investments which ensure production scale necessary for increase in productivity, as well as available resources and the ability to effectively use them’.

Brykova (2006) systemized the main theories of regional competitiveness, and she distinguishes three types of regions: regions as centres of export specialization; regions as sources of growing profits; regions as
epicentres of the accumulation of knowledge. The first one refers to ‘theories that identify the principles and factors of the industrial specialization of regions within the system of an international division of labour. The second one, covers theories ‘that analyze individual regions as independent subjects of international economic activity and concentrate on the formation of local competitive advantages. And the last one consider the ‘regions as epicentres of the emergence of new knowledge’, much attention is given to formation of clusters.

The present paper is based on the theory of Competitive advantage (Porter, 1990). In the Competitive advantage theory, the cluster is outlined ‘Nations succeed not in isolated industries, however, but in clusters of industries connected through vertical and horizontal relationships’ (Porter, 1990:73). Porter (1998) explains how clusters affect competition in three broad ways: first, by increasing the productivity of companies; second, by driving the direction and pace of innovation; and third, by stimulating the formation of new businesses within the cluster. ‘Cluster based economic development is the key to regional competitiveness’ (Snieska, 2008).

There are lots of various indices which measure the region’s competitiveness. For instance, Robert Huggins Associates’ European Competitiveness Index (here and after ECI), which examines and measures the competitiveness of Europe’s regions and nations. Here the competitiveness is defined as ‘the capability of an economy to maintain increasing standards of living for those who participate in it, by attracting and maintaining firms with stable or rising market shares in an activity’ (European Competitiveness Index 2006). European Competitiveness Index 2006 covers the variables such as Creativity, Economic Performance, Infrastructure and Accessibility, Knowledge employment, and education.

The European Innovation Scoreboard 2007 outlines that ‘R&D is vital for many innovation activities of firms and the competitiveness of an industry and a country’.

Meanwhile, World Economic forum focuses on productivity and defines competitiveness ‘as the set of institutions, policies, and factors that determine the level of productivity of a country’ (The Global Competitiveness Report 2008-2009).

According to Snieska, V., Draksaite, A. (2007) ‘National competitiveness of a county is commonly defined as its ability to provide high levels of prosperity to citizens’. Meanwhile Rutkauskas (2008) contend that ‘Difference of national values, structure of evolution – everything brings a certain contribution on the way to successful competitiveness’.

The most famous Competitiveness Theory’s author M. Porter (1990) has paid an important role for government in spurring nation’s competitive advantage.

‘The intensity of patenting, the creation of new firms, and the deployment of venture capital are indicators of a region’s innovation potential’ (Porter et. al, 2004). Having this contention in mind, we now proceed with the analysis of venture capital impact on region’s competitiveness.

**Venture capital and region’s competitiveness**

In this paper we will focus on relationship between venture capital and region’s competitiveness. First of all, having competitive advantage in business or industry, regions stand ahead of the rest ones. Bygrave & Timmons (1992) have highlighted the significant venture capital impact on U.S. and world economy, since it has emerged after World War II. Venture capital ‘played a catalytic role in the entrepreneurial process: fundamental value creation that triggers and sustains economic growth and renewal’ (Bygrave & Timmons, 1992). Venture capital impact on economy is indirect, but expressed ‘in terms of job creation, innovative products and services, competitive vibrancy, and the dissemination of the entrepreneurial spirit’ (Bygrave & Timmons, 1992).

Many authors outline the importance of venture capital to innovation and economical growth. According to Dapkus and Kriaucioniene (2008) ‘R&D in business is seen as a key tool for economy upgrade and national competitiveness achieved thorough the development of high value added’. Meanwhile venture capital with the financing such ventures trigger the development of particular industry and at the same time of the overall economy. Lerner (2001) argued that venture capital has impact on four factors: firms, economy, innovation and geographical regions. Firms benefit from additional capital that is necessarily for research and development, meanwhile economy is growing because of more new jobs, and bigger value added of new VC-backed firms as well as particular industry is flourishing because of bigger investment. Lerner (2001) contends that VC-backed companies are more innovative then their counterparts. And the last, but not the least - geographical regions benefit because of growing investment in R&D due to closer relationship between science and business sectors.
Fredriksen (1997, p.9) argued that ‘As catalyst and risk taker, venture capitalist has been instrumental in the creation and commercialization of completely new industries such as computers and biotechnology’. Cohen & Fields (1998) describes venture capital firms as the key actor in Silicon Valley network with its importance in early stage financing as well as consulting and supervising young ventures. According to Koh, F.C.C., & Koh W.T.H. (2002) ‘thoughtful policies and support of the venture capital industry can create the right climate for innovation and entrepreneurship, which in turn will pay dividends in terms of job and wealth creation’. In addition, Florida and Kenney (1988) contend that venture capital in each region boosts economical development by attracting entrepreneurs and technical personnel. ‘Venture capitalists not only help to organize the process of innovation but function to a large extent as technological ‘gatekeepers’ for the United States economy and its fastest growing regions’ (Florida & Kenney, 1988).

Venture backed companies, such as Apple computers, Microsoft, Intel have changed the nature of industry and the way of living. Bygrave & Timmons (1992) contend that venture capital investments have resulted in ‘creation of hundreds of thousands of new jobs, new expenditures for research and development, increased export sales, and payment of hundreds of millions of dollars in state and federal taxes’.

To sum up what was mention above we now provide a simplified view about venture capital possible impact on region’s competitiveness (see Figure 1).

Figure 1. Venture capital impact on region’s competitiveness (comprised by authors)

Venture capital has positive impact to the regions competitiveness; thereby money invested in innovative projects results in growing productivity as well as bigger value added of innovative companies, growing GDP as well as leverage high technology sector in the particular region.

Global Venture Capital Survey (2008) explores that Europe is still lagging behind the U.S. due to low venture capital investment. There are still some obstacles, such as unfavourable regulations in labour and tax flour, which deter venture capitalist from investing. The mentioned survey underpins the idea that two elements are needed for the venture capital friendly environment: ‘innovation and a government that encourages entrepreneurialism and foreign investment’ (Global Venture Capital Survey, 2008). This contention is supported by Wright et al. (1998) ‘Policy makers need more information surrounding the performance and economic contributions made by different types of entrepreneurs and investors'. Meanwhile, Florida’s and Smith’s (1990) main contention is that it is not sufficient for public institutions to maintain venture capital sector in order to spur the economical development by increasing the number of high technology based firms. The innovation infrastructure should be taken into account. Region competitiveness mainly depends on its innovation background.

In conclusion, a few notable factors can be discerned: first of all venture capital is one of the main actors in region’s innovation network. Financing and consulting the fledgling ventures venture capital spur the development of industry and give the rise of overall economy. Venture capital impact on region’s competitiveness covers: the development of technology based industry, higher rate of investment in R&D, regions’ competitive advantage, higher level of productivity and lower unemployment rate.
Conclusions

The paper concludes with three main findings. Firstly, venture capital funds and private investors (business angels) are the most attractive financial source for financing new technology-based firms. Secondly, venture capital is playing very important role in developing new venture as supplier of money and consultancy provider on product or/and business development issues. The analysis of literature shows, that venture capital is the main financial source for innovation. And the last but not least, venture capital has positive impact to the regions competitiveness, thereby money invested in innovative projects results in growing productivity as well as bigger value added of innovative companies and leverage high technology sector in the particular region.

References
