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The Impact of Governmental Venture Capital on Innovative Young Firms Growth

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Abstract: Governments globally have established funds known as Governmental Venture Capital (GVC) and are significantly emphasizing on them in order to grow of young firms and also ful fill the gap of equity capital of new and innovative organizations. We find that firms backed by governmental venture capital reduce efficiency however increase innovation, job creation and job empowerment of young firms.

Key words: Venture capital, Governmental Venture Capital (GVC), innovative, young firms, empowerment

INTRODUCTION

Young and innovative firms have a critical role in knowledge-based and modern economies since they are a key source of radical innovations, new jobs and also economic growth and productivity and moreover they are considered as a tool in order to discipline an established organizations (Audretsch, 1995; Wong and Autio, 2005). These organizations, unfortunately are encountering with financing barriers that limit level of their growth and also are the threats for their survival. A research which has been conducted by Carpenter and Petersen (2002) demonstrated that limited internal collateral and cash flow, agency challenges and asymmetric information all are the key reason for issues and problems regarding increasing the external capital. Referred to important role of innovative young firm and also their external financing, the important role of VCs in developing the entrepreneurship is clear and has been confirmed by many different researches in literature (Colombo and Grilli, 2010; Chemmanur *et al*., 2011; Puri and Zarutskie, 2012; Croce *et al*., 2013).

Many practitioners and academics revealed that Venture Capital (VC) is a critical driver of having successful entrepreneurial ventures. Regardless of clear modest VC investments volumes in comparison to other capital flows, the results of this financing are remarkably substantial and important (Lerner, 1999, 2002). As noted by Brander, venture capitalists have a key role in generating some of the most influential firms globally. Many firm-level researches have revealed that enterprises which are backed by VC firms show better operational and financial performance and also will grow faster also they are more innovative and more often go to public in comparison to non-VC backs firms (Gompers and Lerner, 2004). VCs suggest portfolio firms a broad range of value-added activities such as indirect advantages and direct coaching, for example certification impact to third companions including skilled workers, customers, financial intermediaries and alliance partners (Gompers and Lerner, 2001).

Regarding innovation, Kortum and Lerner (2000) demonstrated that VC backed companies are shown through remarkably higher rates of patenting in comparison to non-VC backed firms. According to Brander and Hellman, VC brings out remarkable support in various countries for their entrepreneurial firms which are the main sources of employment, innovation and growth of productivity. Related to performance, VC backed organizations show better IPO possibilities and also rates of survival of IPO (Hochberg *et al*., 2007; Puri and Zarutskie, 2012). The operational performance of such firms also appears to be better than compared non-VC backed firms (Yan and Georges, 2013).

According to Brander and Hellman, governments globally are significantly interested in Venture Capital (VC). This can be due to the fact that venture capitalists have a key role in establishing some of the most effective firms globally. A lot of regional/governmental policies attempt to increase entrepreneurship and contribute in growth and survival of new companies (Niska and Vesala, 2013; Murdock, 2012; Kitching, 2006; Meccheri and Pelloni, 2006; North and Smallbone, 2006; Von Bargen *et al*., 2003). Moreover, Alperovych, demonstrated that a lot of governments have tried to reach mentioned VC financing benefits through setting up

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their programs, usually via independent investment funds which are sponsored by government VC (GVC). Thus, it is not strange that most of the governments motivate VC finance provision to the entrepreneurial firms.

Nowadays, VC markets in various countries show a capital dearth and also negative impacts on young innovative firms. Evaluating the effects of public policy toward VC markets particularly appears to be important in such field. Also recent financial crisis resulted in more hardship for companies to develop early stages of finance since VCs are becoming less risk taking and have concentrated on more later stage investments (Block and Sandner, 2009; Colombo *et al*., 2014).

Many different researches focused on country specific contexts of different types of government sponsored VCs including Canada (Cumming and MacIntosh, 2006, 2007), USA (Cumming and Li, 2013; Lerner, 1999), Germany and UK (Cumming, 2003; Heger *et al*., 2005; Sunley *et al*., 2005), Finland, Australia (Cumming, 2007; Cumming and Johan, 2009; Lerner and Watson, 2008) as well as pan-European (Da Rin *et al*., 2006; Leleux and Surlemont, 2003). International proofs on impacts of GVC on exit performance and investment patterns have been studied by Cumming and Brander.

As noted by Colombo and Douglas, there are a lot of studies which have been conducted on economics focusing on potential failures in market related to entrepreneurial finance and innovation which might result in remarkable economic rationale for government intervention within VC markets. The main goal of this paper is to evaluate degree of governmental support toward VC. The existed equity gap which innovative and young firms will be encountered with could not be totally solved through private VC market. Otherwise, a lot of governments have developed their own programs in order to generate VC financing via setting up the GVC funds (Cumming *et al*., 2009).

YOUNG INNOVATIVE FIRMS

Innovative and young companies have a key role in improving innovation level and are an influential leverage for both capitalizing and transferring the knowledge (Audretsch *et al*., 2008). They also have a critical impact in knowledge-based and modern economies since they are a main source of radical innovations, new jobs as well as productivity growth and an appropriate vehicle for disciplining the companies (Colombo *et al*., 2014). In addition, it has been identified that young and new firms do not have complete access to financial sources that it will remarkably limits the possibility of their growth and survival in market (Hartarska and Gonzalez-Vega, 2006; Wiklund *et al*., 2009). In addition, lack of collateral and cash flow internally, agency issues and asymmetric information are the core reasons for initiating difficulties in increasing the external capital (Carpenter and Petersen, 2002).

In general, it is not entrepreneurship which is very valued for growth in economy; rather it is an innovative and young entrepreneurial venture which offers the most effective contributions. Such young entrepreneurial firm will become the main emphasize of venture capital industry. Rather smaller companies improve innovation, generally through venture capital.

VENTURE CAPITAL

Venture capital construct can be described in different ways. Specifically, it means to invest in young and new enterprises which lack a stable growth level (Kaur, 2014). In general, venture capital means capital commitment as shareholding in order to generate and establish small firms which are specialized in both new technologies and ideas.

Based on an extended broad variety of resources Ramona demonstrated that venture capital, VC is a provided financial capital to high potential, early stage, growth start up and also high risk firms which usually concentrate on innovative or knowledge-based sectors of industry. This venture capital fund generated profit through the equity it has in those firms it has been invested in that generally have new and modern business models as well as technologies.

As mentioned by Gompers (1995), investment of venture capital leads to more intensity of ambiguity, asymmetric information as well as more intangible assessment and opportunities. As noted by Berk and Demarzo, a firm which is venture capital could be described as a limited partnership which is specialized in providing funds for investment in private equity of new companies.

The capitalists in classic venture act as partners and coaches with the innovators and entrepreneurs in early stages to contribute in forming and also leveraging the company establishment. The highly successful and fast growth which is backed by investors of venture capital are as Cisco, EBay, YouTube, Blackberry, Google, Jupiter Network, FaceBook, Compact Computer and Yahoo and many other examples (Bygrave and Timmons, 1992).

TYPES OF VENTURE CAPITAL

There are two remarkably different groups of investors including private and governmental venture capitalists (Bertoni and Croce, 2011). These two groups of investors follow different goals and have different investment horizons and skills.

A broader insight has been utilized by Colombo *et al.* (2014) who noted that various definitions for GVC can be found in previous studies which can be ranged from a narrower emphasize on VC funds which is managed by governmental authorities to broader categorizations which have taxation policies in order to motivate participation of private investors. The GVC funds development is mainly aims to correct failures of suppliers within domestic markets of VC. In a research conducted by Grilli, they demonstrated that GVCs are not considered as indirect support programs of government for stimulation of VC funds which are managed by independent firms (IVCs) and also they are not considered as public subsidies which are being directed into contributing the entrepreneurial enterprises which have high technology. Rather GVCs are described as funds which are being managed by a firm which is totally managed by government authorities. These types of funds aim to act as complementary of small private VC supplies through directly entering into VC markets and aiding to solve typical paradox of chicken-egg in nascent markets within which there is a scarce deal flow due to lack of VC and also VC is being developed poorly since there are limited potential stable targets.

Recent studies conducted by Colombo and Douglas revealed that GVC in general is instrumental to broader policy goals, the GVC programs activity is not only guided by financial objectives which are typical allegedly of investors in private sector. In addition in selection process, GVCs mainly focus on investments which might not be very satisfactory in case of return for risk. Investment can lead to remarkable social payoffs and also localized public advantages such as economic growth or job creation in a certain sector or region. Opportunities generating from investment in underprivileged areas for example, can remain as not being pursued without any intervention from government. GVC programs might be capable of initiating some issues in economically and peripheral lagging areas which have limited indigenous VC industries. Since, investors of GVC have broader goals compared to independent VCs, they are usually less responsible for creating high returns on investment. Thus, the cheap equity capital's provision of GVC investors will weaken the motivation of private investors resulting in replacement instead of private VCs participation.

IMPACT OF GVC ON INNOVATIVE YOUNG FIRMS GROWTH

VC is considered as the most customized financing type for organizational growth as explained by many scholars (Gompers and Lerner, 2001). The existed empirical studies significantly point into the fact that VC has positive influence on organizational growth (Puri and Zarutskie, 2012). As an example in Europe, investors of Venture Capital (VCs) that are known as one of the most proper candidates for financing innovative and young firms (Carpenter and Petersen, 2002) are involved in low tech and late stage deals disproportionately (Lawton, 2002; Da Rin *et al*., 2006). According to such evidences, policy makers in Europe repeatedly have asserted the key role of generating stable venture capital industry which will act as the foundation for future economic and growth viability (European Commission, 2010).

Moreover, Grilli demonstrated that there are four key reasons which are responsible in supporting positive influence of VC on organizational growth. Firstly, VCs, VC investors are skilled at screening the entrepreneurial companies which have potential for high-growth compared to other capital market firms (Sahlman, 1990) and also they bring out needed financial resources for firms. Secondly, these VCs will add more value to portfolio firms via provision of competencies and managerial skills both (Hellmann and Puri, 2002) as well as the monitored activity of management operations and achievements (Lerner, 1995). Thirdly, VC shows a signal of portfolio companies' quality to uninformed third companions. Therefore, VC backed company's access external competencies and resources which are in fact unavailable if there is no VC endorsement (Hsu, 2006). Lastly, VC backed companies take advantage from business contacts network such as customers, suppliers and institutional investors of VCs.

Innovative and young firms have a key role in generating innovation and are a tool for capitalizing and transferring knowledge (Audretsch *et al*., 2008). Because of the surrounding information asymmetric on innovative young firms, it seems that moral hazard; adverse selection as well as agency issues might result in failure in market for the entrepreneurial finance. The existed gap in financing is fulfilled with VCS who focus on informational asymmetries through significantly scrutinizing companies before bringing capital and controlling them later. Moreover, within early stage and underdeveloped markets, direct intervention of government could be useful for filling the equity capital gap of companies. This provided many regional governmental policies to increase entrepreneurship and contribute in growth and survival of new companies. However, some scholars ask about focusing on creating new firms on behalf of government as a tool for regional development.

The main objective of GVC usually includes job empowerment and job creation. Employment growth as the most popular measures of local economic performance

is related to regional development. As mentioned by Colombo *et al.* (2014), young and innovative companies rapidly grow during their early years of development so the created jobs by them will offset job loss from business failures in early stages. Through facilitating their development and growth, all of the GVCs attempt to indirectly help to employment. So such treatment impact of GVCs toward employment growth is very small. Empirical proofs initiated from conducted investigations in European Countries (Grilli and Murtinu, 2014), Spain (Balboa *et al*., 2007) and Australia.

- H_1: Governmental Venture Capital (GVC) increase innovation, job creation and jobempowerment

However, some of the conducted researches have concentrated on impacts of GVC toward growth. For instance, firms which are backed by independent VCs in general will outperform those firms which are backed by GVCs, regarding sales growth rates or total assets. Within a multi-European country environment as mentioned by Grilli and Murtinu (2014), GVC investment has no impact on sales growth of portfolio companies. There are some proofs that sales impacts syndicated funding even though the governmental investor is known as the subordinate to private interest.

Also, Grilli and Murtinu demonstrated that small impacts of GVC investments are totally independent of investees' age. They explained that co-financing among private and public operators is influential only if they target youngest insights. According to Alperovych *et al.* (2015) for all of the VC backed companies, public backing will be translated into economically and statistically remarkable efficiency reductions. In addition, Vanacker *et al.* (2014) revealed that those firms which are backed by government, corporate and university investors of VC will less add equity financing in comparison to those firms which are backed by independent investors of VC.

- H_2: Governmental Venture Capital (GVC) reduces the efficiency of innovative young firms

CONCLUSION

This study contributes to better recognizing the impacts of venture capital on innovative firms. The findings of this paper demonstrated that innovation is a key factor for developing competitive advantage and providing specific resources. Moreover, governmental support for new companies aims to introduce new innovative goods and services to markets since entrepreneurship has been considered as a main innovation source. Since in general GVC is leverage to broader policy goals, the GVC programs' activity is not exclusively guided by financial objectives which are in fact typical of investors in private sector. In addition in selection process level, GVCs will assume investments which might not be satisfactory in case of returns on risks, if the investment can result in localized public advantages or significant social payoffs such as economic growth or job creation in a certain sector or region. So, venture capital investments motivate patenting.

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