VALUE CREATION OF PORTFOLIO COMPANIES BY VENTURE CAPITAL FUNDS ON THE POLISH MARKET

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Abstract. Data on VC and PE efficiency shows that the overall efficiency of VC-backed firms is higher than that of non-VC-backed firms at every point in time. This efficiency advantage of VC-backed firms arises from both screening and monitoring. The efficiency of VC-backed firms prior to receiving financing is higher than that of non-VC-backed firms, and further, the growth in efficiency subsequent to VC financing is greater for such firms. The above increases in efficiency of VC-backed firms are spread over the first two rounds of VC financing after which the TFP of such firms remains constant until exit. Overall efficiency gains generated by VC backing arise primarily from improvements in sales, the efficiency gains of high-reputation VC-backed firms arise also from lower increases in production costs. Finally, we show that VC backing and the associated efficiency gains positively affect the probability of a successful exit.

Keywords: venture capital, private equity, performance, multiplies.

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Introduction

Venture capital can be defined as finance that is provided on a medium to long term basis in exchange for an equity stake. The investor will share in the upside, obtaining their return in the form of a capital gain on the value of the shares at a divestment transaction which normally involves either a stock market listing, the acquisition of the company by another investor or the sale of the shares to another venture capitalist, but will generate the lostwhen their investment or business fails. Venture capital investors therefore restrict their investments to businesses which have the potential to achieve very rapid growth and in a short time period to obtain a significant size and market position. This it is the only solution in these circumstances that they will be able to achieve both a liquidity event and a capital gain from their investment. However, a little number of new businesses is capable of meeting these very demanding investment criteria. Although the number of companies that are successful in raising venture capital is small they have a disproportionate impact on economic development in terms of innovation, job creation, R&D expenditures, export sales and the payment of taxes. The injection of money and support enables venture capital-backed companies to grow much more faster than the proceeds from sales revenue alone would allow. Moreover, this superior growth rate is sustained over the long-run. Venture capital-backed companies are faster in developing their products portfolio and bringing them to broad market, pursue more radical and ambitious product or process innovation and produce more valuable patents. It is because funds play such an important role economic development that venture capital attracts the attention of both scholars and policy-makers. At its core venture capital and private equity industry have emerged as a tool to reduce agency costs. However, for this industry to function, certain conditions must be present. First of all there must be companies that present room for improvement: this could be incompetent management or lack of focus on value creation. So there must be agency costs to reduce. Second there must be well developed capital market with active stock exchange so improved companies can be sold on again and the increase in value can be captured by the venture capital firm. Agency costs present the opportunity for private equity and venture capital firms to realize gains – for as long as managers are underperforming in maximizing the value of the companies they are managing.

1. Private equity and venture capital characteristics

Venture capital firms are professional investment organisations who raise finance from financial institutions (e.g. banks, insurance companies, pension funds) and other investors (e.g. wealthy families, endowment funds, universities, companies), attracted by the potential for superior returns. These funds are established with a fixed life (10-15 years) and will normally have a specific investment focusin terms of stage of business, industry and location. The investors in the fund lack the resources and expertise to invest directly in companies, and are only allocating a small proportion of their investments to this asset class (typically a maximum of 1-2%) and so find it more convenient to invest in funds managed by venture capital firms who have specialist abilities which enables them to deal more efficiently with asymmetric information than other types of investor:

- The potential for adverse selection is reduced by their information gathering skills, specialist knowledge of particular industries and expertise in selection enables them to identify and select projects with the potential for high returns;
- Moral hazard problems are minimised by their skills in structuring the transaction and monitoring the investment;
- Their skills in providing value-adding services to their investee businesses and securing an exit for the investment maximises returns.

PE is a form of equity investment into companies that are not quoted on a stock exchange. Under this limited partnership model the venture capitalists have discretion over the management of the fund which is normally established with a 10 year life. PE market consists of several specialized segments, such as: buy-out capital, venture capital, mezzanine capital, specialized real estate funds, secondary market and distressed funds. Private equity is characterized by its passive investment model, in which it seeks to deliver operational improvements in companies that it is engaged in. Private equity funds invest in companies that arein late stagesof development and represent relatively large businesses. Investment period is medium term and generally oscillates around three to five years. Investing in large and established businesses is associated with lower risk in comparison with investing into small companies. Many of the PE investments are buy-out deals including leveraged buy-outs and management buy-outs. Management buyoutsare often associated with maturecompanies with high potentialto generate positivecash flow. In many cases these are private companies whose owners do not want tocontinue the business, large companies that spin-off part of their business or public companies that are delisted after the transaction.

Venture capital investmentscan be defined asequityinvestmentsinunlisted companies that are in the earliest stages of development that operate in innovative industries that offer a high growth potential which translates into high expected rate of return. The stage of the investment is usually called seed or start-up phase. On the other side high expected rate of

return means high investment risk. This explains why venture capital funds are also named risk capital funds. What is more, in many cases venture capital funds back entrepreneurs who have just the germ of a business idea (the European Private Equity and Venture Capital Association definition). Investment horizon of the venture capital investments is between 3 and 7 years. What is important both types of funds not only support companies in the form of capital but also offer advisory services to the companies that they co-own. Moreover, funds help companies to promote their products on a market.

2. Value creation and performance of venture capital portfolio companies

A huge number of studies shows that venture capital investors can contribute significantly to the successful value creation and development of the companies in which they invest. There are three main phases of the investments; early, expansion, divestment stage, European Venture Capital Associationshows that the needs of entrepreneurs, their aims and their management style changes with the current stage in the life cycle of the company. It seems obvious that companies in the early stage have different needs than companies in their divestment stage. It is also seems obvious that a company which operates in different branches requires – due to product life cycle, R&D intensity and special market conditions – different value added than an internet company. There is a focus on operative management support and development of market entry strategies especially in the early stages. In expansion stages the focus is on general strategy, especially concerning internationalization of the business activities and follow up financial rounds. Hellman and Puri come to the conclusion that value added from venture capital companies is highest for ventures in early stages (Hellman et. al., 2000). They point the importance of early professionalization of internal process due to pressure from venture capital managers to implement certain reporting standards. Some studies found that value added depends on the kind of networks and industry sector expertise of the investor. They come to the conclusion that the source of venture capital is as important as the extent of financing. The right match can yield a synergistic relationship that will propel the firm to higher level of excellence.

The relationship between entrepreneur and investor is a fruitful area for value added research. Most important might be acceptance of the investment manager through the management of the venture. Cable and Shane conclude that a cooperative relationship between entrepreneur and investor is even more important for the positive development of a company than a provision of money itself. This relation is characterized by as a socially complex inter-organizational relationship. They argue that the relationship between two parties increases in its social complexity and therefore becomes more and more difficult to imitate (Cable at. al., 1997). This in turn lead to an improvement in the company's performance. VC investors support their portfolio companies with a variety of value added measures. There is a long list of activities that venture capital need to take to add value to the venture. First of al it could be the participation in the definition of business strategy as well as the assistance in establishing an organizational structure. Assistance in establishing internal processes in the company might be helpful in the whole process of monitoring business activities. Very important factor for development could be advice with the respect to internationalization and expansion of the venture. New venture might also need the participation in the development of product and services as well as participation and advice with marketing and sales strategy. For fast developing company assistance in budgeting and business planning and monitoring financial development is also crucial. Venture capital funds managers have their networks and it helps in assistance in acquiring additional equity, in acquiring additional debt and in obtaining subsidies. Managing growing company also means very high quality human resources. VC funds could support portfolio companies in hiring general stuff, management, technical stuff and provide an assistance in negotiating employment contracts. It could develop good quality motivation system. Other factors that influence right management of the company are: acquisition of customers and assistance in sales, acquisition of main accounts and sales partners, advice in choosing suppliers and equipment, assistance in solving of crisis and problem of daily basis as well as contact to portfolio companies of the investor and to technology leader and R&D partners.

Some of the researchers have tried to categorize these value adding activities and roles of venture capital investor. All of these categorizations have disadvantage that they do not clearly differentiate one category from another one. Thus Gompers and Lerner differentiate between strategic value added, social or supportive value added, and networking value added. Introduced two additional categories: strategy, finance, organization and operations, network and cooperation, and personnel (Gompers at. al., 2001).

Value added provided by corporate venture capital companies is regarded as primarily product related, whereas the value added by independent venture capital companies is seen as oriented towards the venture and its development. In early stage ventures the weight attached to operational value added is higher than in the stage of expansion. The importance of hands on management with accordance to is a synonymous for operational value added and it vanishes with the ongoing development of the venture. It is rational behaviour for entrepreneurs to ask for and accept help at an early stage of the company development since it is in this crucial stage that the foundation of success or failure of a venture is set. It therefore seems to be certain that the requirements with the respect to value added change during the life cycle of the venture. In expansion stage the role of operational value added diminishes. European Venture Capital Association studies found that investors care less (in terms of time per venture) for portfolio companies in their expansion stage than for those in their early stage.

Value of a company depends also on the dynamics of a sector that venture is operating. These variable dynamics can cover both technological aspects of the product and its market development. Highly dynamic industrial sectors usually generate more need for value added than those with lower dynamics. Value added in this respect would be an access to the investor's networks. This is regarded by the entrepreneurs as especially important since the market decides faster and faster whether a technical innovation becomes a success or failure. In this case of a technological less dynamics sector the speed of investment commitment from the investor seems to be of a greater interest than any value added. The reason for this is that low-tech business models are easy to imitate, making it crucial for the success of the venture to enter the market as soon as possible and to be step ahead competition. One of the most important determinants of value added is expertise of entrepreneurs in the sector concerned. Experienced entrepreneurs tend to refuse value added since this is often regarded as interference and exceed the ordinary monitoring and controlling of stakes by the investor. In such cases only selective value adding activities are welcomed, depending on the dynamics of the sector.

3. Evidence of value creation by venture capital and private equity funds on the Polish market

Private equity and venture capital on emerging markets is still in the phase of growing and expanding. Those markets experience strong economic growth, good business outlook which is providing a strong foundation for an active and developing PE and VC industry. The economies of many emerging market countries have already gone through their initial 'teething' problems and are being helped in the transformation process by PE funds. Important role of PE funds and its managers was to provide capital and know-how to entrepreneurial firms. PE's penetration of emerging markets (expressed as a ratio of the value of private equity investment to gross domestic product, or GDP) has been steadily improving over the years when compared to developed nations (emerging markets: India – 0.32%, China - 0.13%, Brazil - 0.07%, Russia - 0.02%, Poland - 0.01%; developed markets: the United States -0.30%, United Kingdom -0.32%). Secondly, fundraising in emerging markets now accounts for about 9% of global private equity fundraising, increasing from \$6.5 billion in 2001 to \$22.6 billion in 2009 (with a peak of \$66.5 billion in 2008). So this part of the market become increasingly important. In this chapter it will be Central and Eastern European Countries concentration especially Poland which account for over 50% of all deal volume in the CEE region (Zasepa, 2013).

In the early years, private equity firms were relatively slow to list their investee firms. In the period between 1994 and 2004, private equity firms listed between one and three firms per annum (the exception being 1997, when four firms were listed). During this period, many successful listings were achieved in spite of declining liquidity and valuations in public markets, foreign investor unease about the effects of the Russian crisis, and the weak economic performance of Poland's neighbouring countries. The total capitalization of private equity-backed firms equalled \$4.2 billion (3.1% of total market capitalization), with an average 'normalized' capitalization per firm of about \$90 million. The average value of shares offered to the public during the initial public offering (IPO) process was equal to \$27.4 million (largest – \$139.6 million; smallest – \$2.1 million). About one half of the offer value was generated by the shareholders selling their shares as a part of the IPO; this indicates that private equity firms generally prefer to sell a significant equity stake in their investee firms as soon as possible after the initial listing. The local private equity industry has achieved good financial returns from selling its equity stakes to foreign strategic investors or local trade buyers. However, as noted previously, the average cash-on-cash return from a sale to a strategic investor is lower than in the case of public listing. The most well-known trade sales include Polcard (3.16 cash-on-cash multiple), Lukas (c-o-c - 5.66), @Entertainment (c-o-c -2.66), and Town & City (c-o-c - 2.66). The experience of local private equity firms selling to strategic investors can be summarized in the following manner. Firstly, the best exit results are often generated when strategic investors are involved in competitive bidding for an investee business. Strategic investors are more motivated when they are seeking entry into a new market (as outlined by strategic expansion plans) or when the existing local business is especially difficult to compete against. Good examples of leading market players attractive to strategic investors are Lukas (Enterprise Investors) and Town & City (Innova Capital). Secondly, strategic investors seem to pay less for the business if they already have a local presence. In this circumstance, strategic investors may only be willing to assign value to a specific part of the business (i.e., manufacturing capability, management, consumer list, proprietary supplier access, and so on) or limited value to other areas of operation (i.e.,

distribution). Lastly, timing is everything in the sale of any business. Strategic investors prefer to acquire businesses that are profitable, that have an appetite for growth, and that are able to access cheaper external financing (i.e., debt or equity at limited dilution to existing shareholders). Such businesses typically exist in periods of strong economic growth and prosperity; during an economic downturn, strategic investors tend to look inward and focus on either optimizing their costs or restructuring.

 ${\bf Table\ 1}$ List of the Polish Venture backed IPO and their multiplies and underpricing

No	Year	Company	Initial return in %	Offer value in PLN million	Cash-on-cash multiple
1	2001	LPP	0,00%	40,3	2,6
2		Eldorado	0,00%	19,9	2,8
3	2002	W Kruk	-9,14%	27,3	0,3
4	2004	Comp Rzeszów	14,67%	120.00	7,9
5		Praterm	10,00%	80.24	2,4
6		Techmex	6,00%	187.53	n/a
7		Intercars	4,76%	46.80	2,8
8		ATM	8,64%	110.00	3,1
9	2005	PEP	-7,69%	169.04	2,4
10		Teta	30,39%	11.90	2,9
11		Zelmer	32,58%	35.81	2,6
12		Opoczno	0,00%	455.97	3,4
13		Jago	17,50%	6.67	n/a
14		Travelplanet	11,11%	19.92	6,8
15		Zetkama	-8,93%	31.42	6,9
16	2006	AB	1,74%	91.83	2,8
17		Sfinks	0,36%	32.21	6,8
18		One2One	55,00%	25.13	10,2
19		Wumak Seqom	1,83%	42.80	1,2
20		Mispol	11,25%	14.00	3,2
21		Ergis	0,00%	63.77	n/a
22		Bankier.pl	5,33%	13.00	4,7
23		Fota	0,59%	74.09	n/a
24		Ecard	85,00%	99.14	1,6
25	2007	Magellan	4,76%	36.00	7
26		Mercor	36,59%	104.13	2,9
27		ACE	0,00%	256.01	n/a
28		CP energia	9,44%	243.14	2,7
29		Bipromet	-4,08%	54.60	2,4

30		Hawe	34,72%	29.70	3,9
31	2008	GG	16,19%	22.27	2,2
32		K2	-6,00%	18.75	1,8
33	2010	ABC Data	0,43%	79.41	1,8
34		Harper Hygienics	14,63%	53.30	1,6
35	2011	Kruk	5,06%	369.21	1,3
36		Enel-Med	1,80%	35.50	2,6
37	2012	Solar company	6,46%	40	2,1
38	2014	Skarbiec Holding	5,00%	20,2	3,1

Source: own calculation.

Analysing the data of multiple (cash on cash) we can observe that average value is 3.2, which shows that PE funds on average triple their investments. Standard deviation is at the level of 2.09 which is quite high. Other evidence suggests that the leading private equity firms achieve strong returns in Poland. In the last 10 years (the period between 2000 and 2010), the average return for a private equity deal completed in Poland has been equal to 15.6% (note that 20-year returns were equal to 8.6% – a respectable average given the initial problems faced by the private equity industry in Poland). The top quartile of private equity firms in Poland have been able to achieve returns equal to 32.4% per annum – more than two times higher than public returns and average private equity performance. Private equity returns in Poland outperform those achieved in the CEE region (13.9%) and other emerging markets, Latin America (2.0% – EMPEA 2010) and most notably Asia (7.8%). This numbers show that Polish PE sector in terms of returns and IPO activity is achieving very good results. Very high positive returns bring more opportunity for the investors for looking more portfolio companies and strong capital market as Warsaw Stock Exchange is supporting this trend.

4. Conclusion

Data on VC and PE efficiency shows that the overall efficiency of VC-backed firms is higher than that of non-VC-backed firms at every point in time. This efficiency advantage of VC-backed firms arises from both screening and monitoring. The efficiency of VC-backed firms prior to receiving financing is higher than that of non-VC-backed firms, and further, the growth in efficiency subsequent to VC financing is greater for such firms. The above increases in efficiency of VC-backed firms are spread over the first two rounds of VC financing after which the TFP of such firms remains constant until exit. Overall efficiency gains generated by VC backing arise primarily from improvements in sales, the efficiency gains of high-reputation VC-backed firms arise also from lower increases in production costs. Finally, we show that VC backing and the associated efficiency gains positively affect the probability of a successful exit.

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