VENTURE CAPITAL AS THE MODE OF BUSINESS FINANCE IN PAKISTAN: CHALLENGES AND OPPORTUNITIES

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List of Acronyms

LP	Limited Partnership
MVC	Micro Venture Capital
MCF	Micro Credit Financing
OCS	Office of the Chief Scientist, Ministry of Industry and Trade (Israel)
SECP	Securities & Exchange Commission of Pakistan
SU	High- Tech Start Up, high tech Start Up Company
VC	Venture Capital, Venture Capital companies

TABLES AND FIGURES

EXECUTIVE SUMMARY

This thesis starts off with an analysis of the importance of venture capital, first from the point of view of investors and then entrepreneurs. The importance is further looked at from the role of VC in enterprise development in developing countries; how micro venture capital is more advantageous than micro financing; Islamic venture capital….the importance of each of these has been looked at from Pakistan's perspective.

This research then takes off of the developments in venture capital industry that have taken place in Pakistan. Potential sectors have then been identified and major opportunities divided into three sectors: (1) Technology (2) Media and (3) Telecom sector. Technology sector in Pakistan from the VC point of view was focused ahead in this thesis.

The last section of the thesis analyzes emergence and pre-emergence stages of Israel, India and United States. Finally, this thesis makes policy recommendations for Pakistan based on studies of policies in other countries that are applicable to Pakistan and have proven to be successful over time.

Currently Pakistan is still in its pre-emergence stage. The initiatives that have been taken up till now consists of the modification of the "Venture Capital Companies and Venture Capital Funds Rules, 2001" and different incentives (Fiscal & Corporate Incentives; Efforts to boost the IT Infrastructure) for the development of the software industry. Although Pakistan continues to accomplish, there is still a lot of room for improvement. This can be found out after analyzing the venture capital models of Israel, United States and India).

As a lesson from other countries, Pakistan, in its pre-emergence stage should allow for Limited Partnerships; allow banks, mutual and pension funds to invest in venture capital; Government can liberalize the computer and software industries by encouraging Exports and give more relaxation to relaxation of IPO guidelines as this would create a more favorable environment to VC. However, it is very important to

ensure that only qualified and experienced venture capitalists are allowed to practice. Otherwise, the outcome could be devastating to individuals and the economy of the country as a whole. In USA and Europe, new VCs align The dot-com bust in USA is evidence that a relaxed VC environment can have negative impact on the economy. Hence, the government should only relax IPO guidelines once the rules and regulations for VC practice are in place.

Pre- emergence conditions enable an appropriate design of targeted VC policies. From the Israel model, we learn that a program like Yozma Program should be introduced.

From the India VC-emergence-model, we observe that the Non-Indian- residence have played a major role in the growth of VC. In Pakistan a similar strategy can be adopted. Pakistanis in Silicon Valley can be offered incentives (example through favorable pre emergence factors), to invest in Pakistan. They can invest as angel investors (just like many NRIs).

A VC industry can thrive on a sustainable basis only if new scientific-technological based innovation & business opportunities are continuously being created in the system. Thus it is important for Pakistan to create a solid pre-emergence base.

Further recommendations and details from the lessons learnt from other countries have been mentioned in this thesis.

In summary, there are many opportunities of venture capital in Pakistan. There is progress but it is not enough. More can be accomplished through realizing its importance. Major opportunities lie in applying the lessons learned from successful VC companies. These opportunities themselves are a major challenge which Pakistan faces.

Chapter 1

RESEARCH METHODOLOGY

1.1 PURPOSE OF THIS THESIS

The purpose of this thesis is to promote venture capital in Pakistan. In order to achieve this objective, venture capital in Pakistan has been looked from different ways, such as:

1) Importance of having venture capital in Pakistan
2) Major sectors where opportunities exist
3) The efforts to create a venture capital industry in Pakistan
4) Emergence and pre-emergence: Israel, Indian and United States model. Lessons for Pakistan

1.2 IMPORTANCE OF THIS PROJECT

Recently a lot of importance has been given to the venture capital industry in Pakistan. It is important to carry out this research as this report not only gives an overview of the current scenario but also of what model and policies can be adopted in the future after analyzing the cases of different successful venture capital models (Israel, United States and India). This would certainly help the policy makers. Apart from this different sectors have been analyzed where the venture capital opportunities exist for the venture capitalists and the entrepreneurs.

1.3 RESEARCH TECHNIQUES

This research has been carried out through:

1) The use of secondary data (Internet, and books)
2) An interview with Mr Bilal Rasul, an employee of SECP, venture capital department
3) Guidance of thesis advisor Mr. Taufique Samdani

Chapter 2

THE IMPORTANCE OF HAVING VENTURE CAPITAL IN PAKISTAN

2.1 IMPORTANCE OF VENTURE CAPITAL FROM VC, INVESTORS AND ENTREPRENEURS PERSPECTIVES.

Venture capital is important for the VC, investors and entrepreneurs. From the point view of the venture capitalist, they can quickly spot problems and opportunities for improvement as they are actively involved in the venture. The investor too, can benefit, as he can quickly realize whether he wants to hold on to the investment or he wants to divest. This ultimately leads to an increase in the value of the portfolio for him.

The entrepreneur also benefits from the venture capitalist. This is because the Venture Capitalist may help the entrepreneur in management, strategy and marketing decision making of his venture. Venture Capitalist can also get access to the resources which are of use to the entrepreneur. In case the investor leaves quickly, the entrepreneur is freed to work on other projects.

2.2 ROLE OF VC IN ENTERPRISE DEVELOPMENT IN DEVELOPING COUNTRIES

Growing enterprises in the countries in Latin America, South America, Eastern Europe and Asia have caught venture capitalists attention. (As Pakistan is a developing country, it is important to recognize the role of VC in this context).

Venture capital plays two major roles in the developing countries of today:

(i) The fact that returns on these types of investments have fallen significantly in developed countries means that these venture capital firms are beginning to and will continue to inject billions of dollars into developing countries economies by investing in start-ups. This is where they can achieve the highest returns.

(ii) The other role venture capital will play in developing countries is to provide managerial expertise and advice to relatively inexperienced companies in developing countries. Many companies in developing countries have been local players for years, sometimes protected through governmental actions like trade barriers or tariffs. As we transition to a global economy, many of these SMEs in developing countries are finding it hard to compete. This is where venture capitalists can help the most as they are led by the experienced, professional managers. Many times smaller companies can not pass a certain level until they bring in managerial help. Venture capital will fill this role and serve as catalysts in developing countries' economies.

The role of VC in enterprise development will convince local governments in the developing countries to provide for a structurally sound stock exchange so it is easier for venture capitalists to exit. The importance of a strong stock exchange is critical to a developing countries success. If companies that venture capitalists are investing in can not "go public" due to the regulations or size of the local stock exchange, it makes it more difficult for a venture capital fund to "realize" their investment gains. Thus, if the VCs do aim for a high development of the enterprises, local stock exchanges would ultimately benefit as the companies would be in a strong position to be listed in the first place. As venture capital funds in developing countries grow, so will the need for local stock exchanges….thus, similarly, in Pakistan too, more stock exchanges can be developed apart from the only 3 stock exchanges (Islamabad, Lahore and Karachi Stock Exchange) we have currently. [1]

2.3 ISLAMIC VENTURE CAPITAL: BRINGING VENTURE CAPITAL UNDER A SHARIA COMPLIANT FRAMEWORK

The potential for purely 'Islamic' venture capital is large. There are many Muslim entrepreneurs living in developed countries that are seeking Islamic VC. There has recently been a $50 million venture capital fund launched by the Islamic Development Bank (IDB) that is targeting high tech ventures in Muslim countries (Al-

[1] Role of VC in enterprise development in developing countries new ventures world resources institute, http://www.new-ventures.org/resources.vcdeveloping.html, (accessed 17 August, 2005)

Rifai and Khan, 2000). As Pakistan is an Islamic state, there exists a huge potential for an "Islamic venture capital".

How this can fit into a Sharia compliant structure:

- Is venture capital an acceptable investment vehicle for Islamic investors? If so, then the next question would be
- Be whether or not the structure mentioned above is Sharia compliant. If not, what structure can be used?

2.3.1 Sharia Views on Equities

- Sharia scholars are in agreement that venture financing at the early stages of a company's life is a classic form of *mudaraba*[2] financing, not only because of the relationship between the provider of capital and the user, but also because investors can stipulate how they want their funds used. (Al-Rifai and Khan, 2000).
- A *musharaka*[3] structure is another tool which can be used to finance a venture. (Al-Rifai and Khan, 2000).

Today, equity funds are a standard product offered by Islamic institutions. To sum up the Sharia view on equities, the following is a statement issued by a prominent Sharia scholar in the Gulf, "… If we consider the circumstances of these companies

[2] An agreement between two parties, one provides 100% of the capital for a venture and the other, known as the *mudarib*, manages the venture using his/her skills. Profits are distributed according to a pre-agreed ratio. Losses are borne only by the provider of the capital while the *mudarib* looses his/her time, effort, and the chance for a reward. Management is provided by the *mudarib* only.

[3] This is a classical partnership agreement. All parties involved contribute to towards the financing of a venture. The parties share profits on a pre-agreed ratio while losses are shared according to each party's equity. Management of the venture is carried out by all, some, or just one member.

(traded on world stock exchanges), we realize that they constitute an indispensable need in the economic structure of the country, and no state can dispense without them. Moreover, they meet the urgent needs of individuals for investing their savings.”((Al-Rifai and Khan, 2000).

2.3.2 Structuring Issues

There are some aspects in the structure of venture capital which may not be inline with the Sharia. These aspects are mainly related to the structure of preferred stock and shares that act like a debt instruments. A Sharia compliant structure aims to balance the risk/reward benefits to all parties involved in a deal. As such, any financial instrument that acts like a debt security where the investor can get a “riskless” reward is prohibited. However, if the burden of risk is tilted unevenly towards the investor, the investor will loose the incentive to participate in an unexpectedly high-risk venture. What can be done to balance the risk in a Sharia compliant venture? Fortunately, as Islamic banking continues to develop, new and innovative financial instruments are being developed to answer these questions.

The following aims to offer solutions to two issues, the first regarding the use of preferred stock and the second regarding the use of a discount rate to arrive at a company’s valuation. (Al-Rifai and Khan, 2000).

2.3.2.a Preferred stock

An Islamic alternative to preferred stock has been suggested which can minimize the downside risk to Islamic investors. However, such an instrument has not been used in any venture capital transaction yet. This "Islamic" preferred Stock is more like common stock with predetermined profit ratios. It acts like a pure preference share with predetermined varying profit ratios. There can be no accumulation of profits and no liquidity preference to one investor over another in case of a sale or liquidation. (Al-Rifai and Khan, 2000).

Difference between debt and Islamic preferred stock is that in case of debt, preference is still given to the creditor if the company liquidates. On the other hand, in case of Islamic preference stock, no first preference is given to the investor in case of liquidation. This feature makes the Islamic preferred stock look more like equity. So what is the difference between equity and the Islamic preferred stock now? The difference is that the profit ratio of Islamic preferred stock is pre-determined, whereas there is no pre-determination in the case of equity.

2.3.2.b Valuing company using discount rate

Since private equity deals are by nature risky transactions for several reasons, true valuation of the deal is crucial to achieve a target rate of return. Conventionally, discounting rates are benchmarked against some risk free security, such as US Treasuries. This is a gray area from an Islamic perspective. However, Islamic investors need not worry about such discount rates since venture capitalist tend to value a company based on (a) returns on a project of a similar risk profile, (b) the average return on a well diversified equity portfolio. This is Sharia compliant. (Al-Rifai and Khan, 2000).

2.3.2.c A workable solution under existing structures

Finally, a simple and ready to use solution is available but may not be an optimal solution for some Islamic investors. The solution is to use a combination of vesting and covenants along with the issuance of common stock. Both vesting and covenants can be easily designed for the Islamic venture capitalist and will avoid costly structuring of untested financial instruments. (Al-Rifai and Khan, 2000).[4]

2.4 MICRO VENTURE CAPITAL (MVC) FINANCING IS MORE EFFECTIVE THAN MICRO CREDIT FINANCING (MCF) IN IMPROVING DEVELOPING ECONOMIES

In Pakistan, the concept of micro credit financing is increasingly gaining popularity. However, the argument in this section suggests that the micro venture

[4] Al-Rifai and Khan, 2000, The Role of Venture Capital in Contemporary Islamic Finance, http://www.failaka.com/Library/Articles/VC%20in%20Islamic%20Finance.pdf, (accessed 17 August, 2005)

capital is more effective and improves the economy in the developing countries as compared to the micro credit.

According to a report by Goldman,Sachs & Co, following holds true for MVC as compared to MCF

- Its financing has a 10 per cent higher return than MCF
- A 5 per cent lower default rate
- They have 10 per cent less overhead cost than micro credit banks.
- The cost structure for MVCs is flexible while the cost structure for micro credit banks is fixed.

Micro venture capitalists finance small start-ups and companies for capital growth. Alternatively, micro-creditors lend small loans to low-income households for interest earnings.

Micro venture capital firms differ from Venture Capital (VC) firms in their choice of exit points (the time when the venture capital fund ends its involvement in the business). VCs use IPOs, mergers, acquisitions, and buyouts as exit points. MVCs end their involvement in a business when they are able to collect their original investment, a return on it (which can range from 50-100%), and a fee for the expertise that the MVCs provide in the early stages of the startup. MVCs collect money only when the start-up is profitable. Micro credit banks offer small loans to low-income households and follow a weekly payment collection schedule. Micro loans tend to carry a higher interest rate than conventional bank loans. Micro lenders usually require borrowers to form groups. Each member of the group takes an individual loan, and must make an individual weekly payment on that loan. If one of the members of the group misses a payment, the entire group is denied further credit until the delinquent loan is brought current. This encourages the group to make sure every member keeps his or her loan current.

MVCs have higher returns because investors assume a higher risk; however, the investor is able to reduce the number of bankruptcies by educating the entrepreneurs and providing expertise. MVCs are interested in the profitability of the business rather than regular fixed payments. Micro lenders have lower returns because investors assume lower risk. The rate of default tends to be higher, however, because the micro-lender insists on a weekly payment, whether the business is profitable or not. The lender takes no interest in the success of the business, leaving the borrower with no advisory assistance. Borrowers have no collateral, so if they default, the lender has no means to recover any portion of the loan.

The cost structure for MVCs is flexible while the cost structure for micro credit banks is fixed. MVCs have less overhead cost because they have fewer employees and fewer branch offices. MVC employees are primarily consultants, providing advice and expertise to start-ups. They do not need to meet with entrepreneurs every week, and the number of MVC employees is not as important as the expertise they posses. Contrarily, micro credit requires a large force of collection officers to visit borrowers every week and collect the weekly payments. The approval process of the MVC is simpler and more definitive because it relies on evaluating business plans, while micro credit model relies solely on the borrower's character. Fewer employees at MVCs mean fewer and smaller branch offices. MVCs also have a flexible cost structure. When a start-up fails and cannot repay an MVC's investment, the MVC simply charges it as a sunk cost and moves on to other opportunities. MVCs only increase their workforce when they are profitable and when they need more consultants to assist a larger number of businesses. On the other hand, when a borrower defaults on a loan, the micro creditor must send employees to attempt redemption of the loan. Therefore, as the revenue of the micro lender is falling, its costs are increasing. In the case of a large number of defaults, the micro lender could be put out of business due to falling revenues and rising costs.

MVCs significantly improve peoples' standards of living while micro credit financing only causes incremental and cosmetic changes. MVCs tend to invest in micro-enterprises, which are larger in scale than the businesses funded by micro creditors. Within one year, 80% of micro-enterprises have at least one employee, according to the report. In contrast, one fourth of micro credit is used for personal consumption rather than income generating activities. Seventy five per cent of the remaining credit is used to finance small agricultural projects with low returns. These activities raise the borrower from just below to just above the poverty line, and rarely generate employment for others. Profit margins of micro-enterprises are, on average, 10 times higher than the profit margins of micro credit-financed projects, according to the economists at Goldman. With increased business profits, disposable incomes rise and people become more likely to spend; this in turn stimulates the economy and positively affects business profits.

The MVC model of financing motivates entrepreneurs to educate themselves, their families, and their employees. Entrepreneurs who receive MVC financing also receive training in basic business skills. A survey of households with MVC- financed businesses, conducted by the Association of icro Venture Capitalists, indicated that 76 per cent of respondents feel that their participation in the programme has made them more likely to send their children to college. MVC- financed businesses also create a demand for skilled labor, which develops the need for a better education. Micro Venture Capital business financing causes higher profit margins and increased innovation in the economy compared to micro credit business financing. Profits coupled with innovation increase the GDP and its rate of growth. MVC financing model creates more jobs than the micro credit model of financing businesses, and increases the demand for skilled labor, which increases wages fairly. These changes reduce poverty. The MVC model predisposes the entrepreneurs in the country to educate themselves, their families, and their employees. This motivation increases the nation's literacy rate.

The micro credit model of financing does not place a high value on knowledge, so micro loan recipients are not motivated to educate themselves. Therefore, as compared to the micro credit financing model, the micro venture capital model is a superior approach to helping a developing economy.

In Pakistan however, the concept of micro venture capital has not yet been introduced. There is a huge opportunity here. There are a few micro credit banks in the market such as Pakistan microfinance bank…which offer saving and loan products as in table 2:

Sr. No	**Type of Micro- Credit Product**	**Type and its conditions**
1	Business Group Loan	Solidarity group lending, Rs.5,000-50,000, 15% annual interest rate.
2	Business Committee Loan	Larger solidarity groups, Rs.3,000-50,000, 12% annual interest rate.
3	Individual Loan	Micro enterprises. Rs.5,000-100,000, 16% annual interest rate
4	Group Loan	Village banking methodology, rural areas, 10% annual interest rate
5	Urban Group Loan	Solidarity groups, 3-10 borrowers, Rs.3,000-50,000, 15% annual interest rate
6	House Improvement Loan	Rural areas, 5 or more borrowers in village or women organizations, Rs.1,500-50,000, 15% annual interest rate
7	Employee loan scheme	Low-income employees, Rs.5,000-40,000, 10% annual interest rate

Table 1: Micro credit products

Table 1 summarizes the qualities of micro credit mentioned in this section. Features such as the “group loan” and “high interest rates” have been incorporated in these products.

2.4.1 Performance Evaluation Of Kashf Foundation, A Microfinance Institute

Kashf Foundation was set up in 1996 as a non-profit micro-finance organization, with the mission to alleviate poverty and empower the rural women in Pakistan. After over 8 years of operation, the foundation has cultivated a strong outreach, serving over 62,000 customers with the total advances portfolio standing at Rs.328 m as of April 2004.[5] Although social collateral does exist and is always exercised, loans are not secured with physical collateral and are therefore prone to relatively higher risk of complete loss in case of nonpayment. Kashf features a rate of gross portfolio nonperformance at 0.12%, against which provision outstanding is 2% of gross advances. [6]

Kashf avails several international and local grant facilities to finance its loan products. The major donor being Pakistan Poverty Alleviation Fund (PPAF) has provided grants as well as a loan limit of Rs. 450m.[7] Other donor organizations have also furnished support and commercial sources of funds have also been tapped locally.

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5 Sabeen and Mirza, 2004, JCR-VIS Credit Rating Company Limited, Kashf Foundation Rating Report (date created September, 2004), www.jcrvis.com.pk/op_pr/op_09152004_kf_e.pdf, (accessed 6th September, 2005)

6 Sabeen and Mirza, 2004, JCR-VIS Credit Rating Company Limited, Kashf Foundation Rating Report (date created September, 2004), www.jcrvis.com.pk/op_pr/op_09152004_kf_e.pdf, (accessed 6th September, 2005)

7 Sabeen and Mirza, 2004, JCR-VIS Credit Rating Company Limited, Kashf Foundation Rating Report (date created September, 2004), www.jcrvis.com.pk/op_pr/op_09152004_kf_e.pdf, (accessed 6th September, 2005)

	2004	**2003**
Sustainability / Profitability		
Financial Self Sufficiency	190.076%	90.73%
Return on Equity	25.50%	8.79%
Return on Total Assets	10.76%	1.94%
Efficiency		
Administrative Efficiency	16.27%	23.63%
Operational self-sufficiency	202.29%	116.11%
Yield on Portfolio	40.19%	34.76%
Personnel Cost per Unit Money Lent	Figure not available	13.09%
Portfolio Quality - Recovery & Portfolio at Risk Analysis (PAR)		
Recovery %	100%	100%
PAR (outstanding balance of loans with of late repayments over outstanding balance)	0.57	0.28
Number of Delinquent	832	671

Customers		
% of Delinquent Customers	1.27%	1.06%
Outstanding Balance (with service Charges)	1,004,660	622,207
Outstanding Balance Portfolio	422,500,493	401,027,464

Table 2: Profitability, efficiency and PAR ratios[8]

Months	1 - 30 days		31 - 60 Days		61-90 Days		Over 90 Days		Total > 1 day late	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
April, 2004	864,750	0.22	188,230	0.05	167,030	0.04	139,855	0.04	1,359,865	0.35
May, 2004	306,900	0.08	900,060	0.22	187,650	0.05	246,085	0.06	1,640,695	0.41
June, 2004	648,510	0.15	442,170	0.10	844,920	0.20	484,840	0.11	2,420,440	0.57

Table 3: Outstanding balance of loans with late payments[9]

[8] Kashf Foundation Quarterly Report, 2004, (date created June 2004) www.siyanda.org/static/khashef-quarterlyreport.doc (date accessed 9th September 2005)

From the above table we can see that Kashf has been performing well. It has a recovery rate of 100%. The % of delinquent customers is around 1. However, one thing to critique here is that "Personnel cost per unit money lent" is pretty high. This obviously has an impact on the profitability and efficiency ratios. It is worth mentioning here, that if micro venture capital had been provided instead, these ratios must have shown an improvised figure.

Also, one thing to be noted is that Kashf is a non-profit organization. It is mostly receiving the funds (in the form of grants) from organizations such as PPAF. If these grants had not been provided, Kashf would have been in a worse position than what is witnessed right now. In case micro-venture capital had been provided instead, there would have been no *dependence* in the first place on such agencies. This is because money would have been obtained from the investors.

Last, but not the least, in case micro venture capital had been provided, the women entrepreneurs would have been educated their expertise would have improved as well. Thus, by studying the example of Kashf Foundation, we can see that there is a room for improvement if it had introduced micro venture capital instead. Study of Goldman Sacs certainly supports this point of view.

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[9] Kashf Foundation Quarterly Report, 2004, (date created June 2004) www.siyanda.org/static/khashef-quarterlyreport.doc (date accessed 9th September 2005)

Chapter 3

THE SECTORS WHERE OPPORTUNITIES EXIST IN PAKISTAN FOR VENTURE CAPITAL

Pakistan has a strong population of 140m, which is growing at 2.3% per annum which means that scale of economies is there.[10] Other main reasons why a huge opportunity for the venture capitalists in Pakistan exists is because of: current low base (under-penetration), deregulation drive, trend towards automation, improving purchasing power and increasing awareness about new information, communication and entertainment tools.

A comparison with other Asian countries highlights that the technology, media and telecom potential is much higher than existing penetration levels depict.

[10] TMT Ventures Limited, 2002, venture capital in Pakistan, www.tmtventures.net/vcinpak.asp, (accessed 17 August, 2005)

Country	**Population (Million)**	**GNP per capita(US$)**	**Access lines(000s)**	**Penetration (%)**	**Desktop computers (000s)**	**Penetration (%)**
China	1,261	750	134,100	10.6	20,600	1.6
India	1,014	440	37,900	3.7	4,600	0.5
Indonesia	204	640	7,000	3.4	2,100	1.0
Pakistan	*140*	*429*	*3,575*	*2.5*	*1,000*	*0.7*
South Korea	46	8,600	22,500	48.9	9,000	19.6

Source: ITU, Internet: New Media & eCommerce & PC Software 2001, MSDW, Economic Survey of Pakistan, CLSA Emerging Markets and AKD estimates

Country	**Internet users(000s)**	**Penetration (%)**	**Mobile phones (000s)**	**Penetration (%)**	**Cable subscribers (000s)**	**Penetration (%)**
China	22,500	1.8	120,000	9.5	61,000	4.8
India	5,000	0.5	5,000	0.5	18,400	1.8
Indonesia	1,450	0.7	5,000	2.5	-	-
Pakistan	*1,300*	*0.9*	*836*	*0.6*	*1,800*	*1.3*
South Korea	19,040	41.4	30,800	67.0	1,700	3.7

Source: ITU, Internet: New Media & eCommerce & PC Software 2001, MSDW, Economic Survey of Pakistan, CLSA Emerging Markets and AKD estimates

Table 4: Comparison of Pakistan with other Asian countries; highlighting technology, media and telecom potential

In Pakistan, there are several sectors and small industries, which have tremendous potential of growth and they can contribute a lot to the society and to the economy.

Some of the sectors with bright prospects are:

(a) Entertainment/leisure (amusement parks, cinemas)

(b) Education (universities of international caliber)

(c) Computer hardware vendors

(d) Automobile spare parts vendors

(e) Software development

(f) Fan industry

(g) Surgical instruments and utensils

(h) Apparel/ branded attire (export)

(i) Sports goods

(j) Leather garments and shoe manufacturers, and

(k) Electronic appliances.

In Pakistan, the Tax exemption of VC industry is likely to extend from 7 years to 10 years. This move will give boost to the investment in VC companies.

I would like to highlight the three main sectors that are huge opportunity for the VCs. These sectors are: telecom, media and technology sector.

3.1 TELECOM SECTOR

The telecom sector in Pakistan can be divided into five major segments:

1. Basic landline telephony
2. Mobile cellular telephony
3. Card operated landline and wireless telephony
4. Internet and data communication services
5. New services after PTCL's monopoly ends

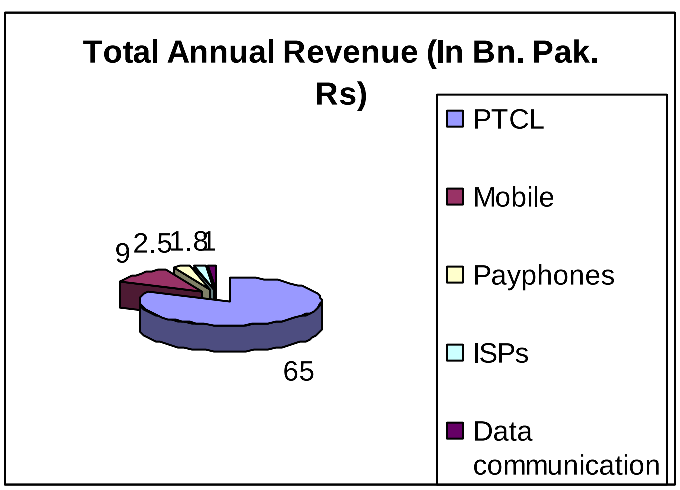

Figure 1: Total revenue breakdown in the telecom sector

The subscriber base for these services is still pretty low….less than 1% for the fixed line, mobile and Internet penetration. This indicates that a huge market exists. Deregulation after PTCL gets privatized would lead to a huge wave of competition, ultimately resulting in lower prices and improved services.

In addition to these totally new avenues like VOIP, broadband ISP, corporate data communications, next generation mobile cellular services and Internet networks are also expected to open up in the near future. Already we can signs of improvements in the current scenario through the launch of Telenor and Al Warid recently, however, the telecom industry is expected to continue to boom.

The figures shown below sum up how much opportunity lies in the telecom sector due to the high growth witnessed.

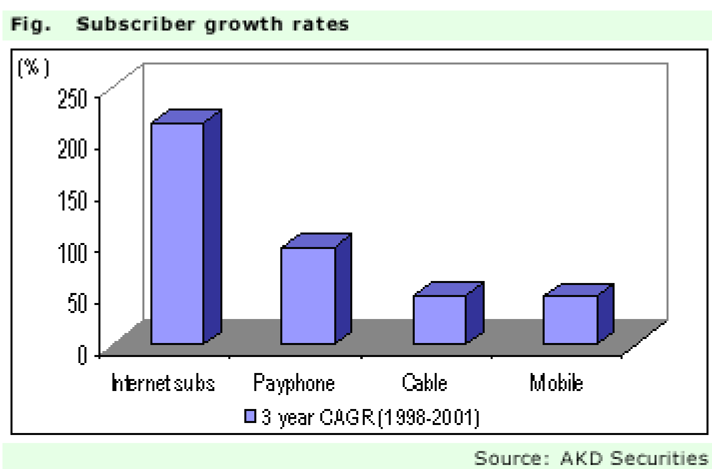

Figure 2: Subscriber growth rates in telecom industry, Pakistan

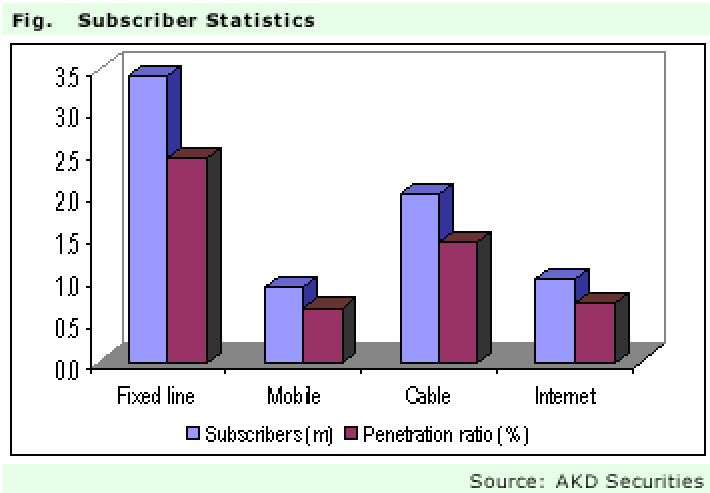

Figure 3: Subscriber statistics in the telecom industry, Pakistan

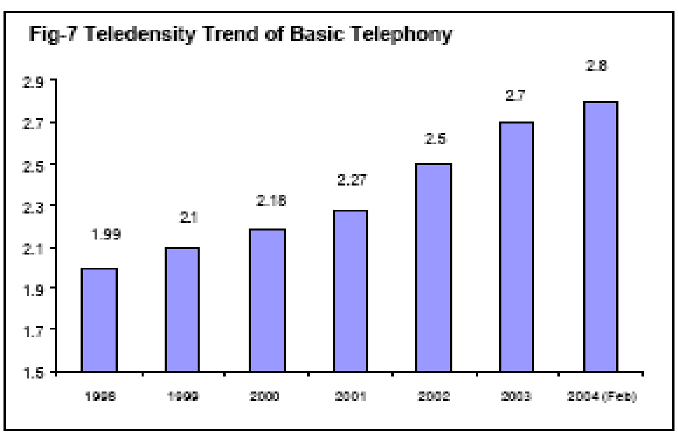

Figure 4: Teledensity trend of basic telephony[11]

[11] Source: AKD securities

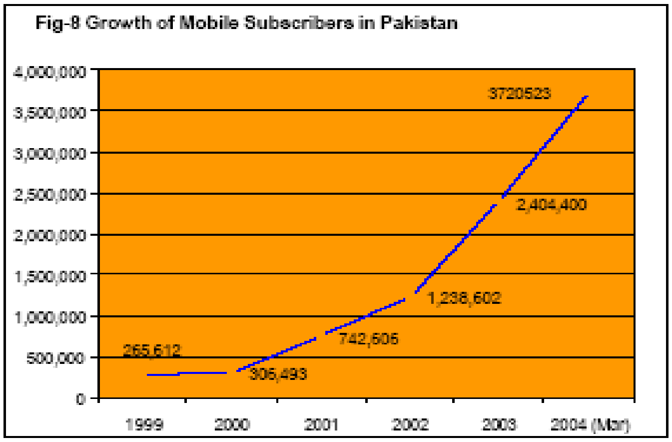

Figure 5: Growth of mobile subscribers in Pakistan[12]

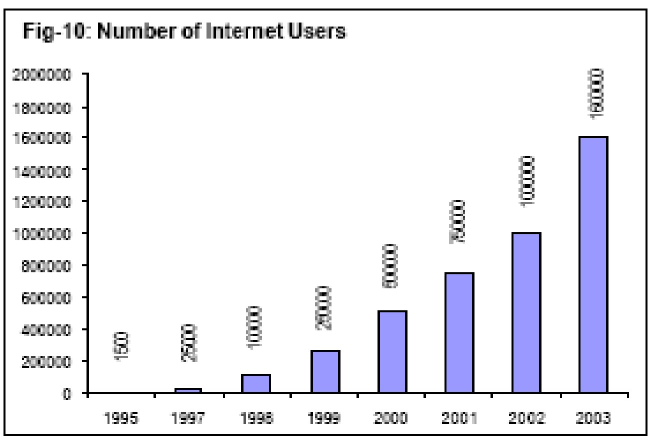

Figure 6: Number of internet users[13]

[12] Source: AKD securities
[13] Source: AKD securities

3.2 MEDIA SECTOR

The deregulation of the media sector in Pakistan has resulted in opening doors to several new TV and radio channels, production houses (for content development), animation studios, etc. the media market size in Pakistan has great potential. It helps to generate PRs12bn annually. This revenue also includes the revenue generated by the cable channels which is the fastest growing sector in the industry.

The electronic media in Pakistan had until recently been dominated entirely by the state owned Pakistan Television. Beginning in early 1990s, the government allowed private channels to operate. These smaller, largely under funded channels could not afford to produce content on their own. They turned to private production companies for content. This effectively split the industry, as well as cost base, in two: content provision and broadcasting. The last decade has seen mushroom growth in these private production companies. These companies, usually independent operations from veteran PTV producers and directors, rely on procuring advertising revenue to make these productions viable. So far, they have largely been successful and the industry has seen a marked increase in competition and quality.

3.3 TECHNOLOGY SECTOR[14]

Software / technology are generating currently Rs8bn (US$142m) revenue in Pakistan. There are around 700 software houses in this market. [15]

Since the last few years, the government has taken different steps in order to facilitate the growth of this sector. Following steps have been taken:

- Building of backbone infrastructure
- Slashing backbone prices
- Penetration of internet services in smaller regions
- Manpower training
- Establishment of a regulatory framework.

Due to these measures, the technology sector has seen a rapid growth, as shown in the figure below:

[14] Please note here that venture capitalists' involvement in invest in technology sector is substantially larger than any other sector. This is a renowned fact globally. Due to this fact, and the opportunity in technology sector in Pakistan, focus in this thesis is on the technology sector.

[15] TMT Ventures Limited, 2002, venture capital in Pakistan, www.tmtventures.net/vcinpak.asp, (accessed 17 August, 2005)

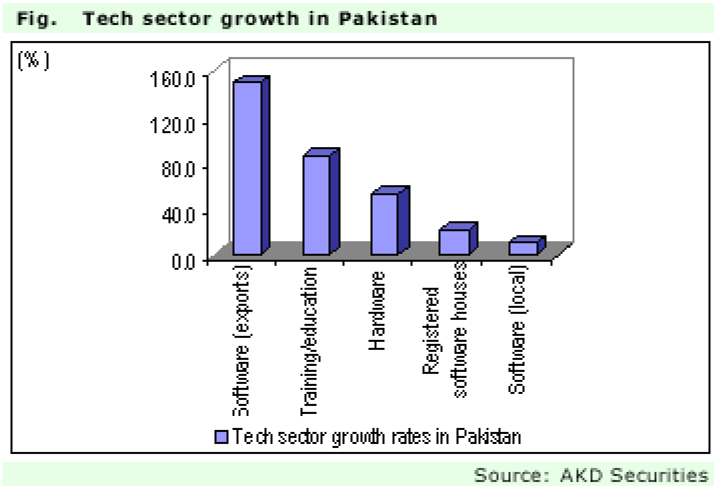

Figure 7: Tech sector growth in Pakistan

The market is largely service oriented with a bulk of software houses providing low-end services like web designing and hosting. Most of these houses are under funded and lack the expertise to compete for high-end, value-added business locally and internationally. Because of the availability of low cost technical manpower, these houses are able to work on almost all available platforms. The downside to this approach is that these houses lack focus and are largely unable to achieve critical mass.

Because of these inherent weaknesses, the industry as a whole is largely unable to withstand shocks. This has been evident over the last year as many houses shut down in the face of reduced IT spending by major companies and a general IT slump worldwide. Even the more reputable names had to scale down their operations.

So from the venture capital point of view, the benefit lies in investing that technology sector market which aims to provide high-end services.

The example of a “high-end service” can be the open-source software service provider. These days’ investors see this as a great potential. Many venture capitalists view open-source software as a rising technological wave that can't be ignored. The numbers bear this out. According to the Research firm Gartner, they say that Linux will power more than 20 percent of corporate servers in the next three years…. IDC, another research firm says that Linux server revenues grew by about 60 percent in the first quarter of the year 2004 in US.

According to Stewart, an employee at IBM, "You could say that it is as disruptive as ... mainframes going to PCs or landlines going to cell phones," he said. "Software as it has been sold for years is about to be turned on its head completely." These types of disruptive shifts can create big opportunities.

One issue is finding businesses that know how to insert themselves into the open-source ecosystem. Some say the best opportunities include backing companies that provide management software, technical support or tools to make the disparate open-source systems run securely and efficiently. Where venture capitalists are going to make money are all of those companies that surround open source to make it work. Large businesses switching to the Linux operating system, coupled with the number of new startup companies building technology on open-source software, will shake up the software industry.[16]

16 John Cook, 2004, venture capital: investors see open-source software, Seattle post-intelligencer reporter, (date created November 12, 2004), http://seattlepi.nwsource.com/venture/199321_vc12.html?source=rss%20–, (accessed 17 August, 2005)

Open source falls in the top 10 technologies and movements we are seeing overall in the world. Pakistani entrepreneurs, investors, VCs have a great opportunity in this which they can exploit.

Apart from open source, the top 10 emerging technologies that will make particularly big splashes and will transform the Internet, computing, medicine, energy, nanotechnology etc are:

1. Airborne Networks
2. Quantum Wires
3. Silicon Photonics
4. Metabolomics
5. Magnetic-Resonance Force Microscopy
6. Universal Memory
7. Bacterial Factories
8. Enviromatics
9. Cell-Phone Viruses
10. Biomechatronics[17]

Thus, again, this is a great opportunity for Pakistani entrepreneurs to start up and for venture capitalists to fund these technologies.

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17 TechnologyReview.com, 2005, 10 Emerging Technologies (date created May 2005), http://www.techreview.com/articles/05/05/issue/feature_emerging.asp?p=0, (accessed 17 August, 2005)

Chapter 4

THE EFFORTS TO CREATE A VENTURE CAPITAL INDUSTRY IN PAKISTAN

These days, all the stakeholders- the financiers, the capital market regulators, the borrowers, and above all banker-turned-Finance Minister Shaukat Aziz are highly upbeat about venture capital as the new mode of business finance in Pakistan. This chapter highlights the efforts presently underway in Pakistan to promote the Venture Capital industry.

4.1 GOVERNMENT EFFORTS

Appropriate fiscal incentives are necessary to make venture capital a vibrant sector of the economy. Within the legal frame-work, the SECP has offered help to redress any procedural or practical difficulties. This framework has been provided in the venture capital companies and funds Rules 2001. The SECP also has laid down stiff criteria to ensure that the management team of VC companies should have high professional qualifications and skills and should be known for financial and personal integrity.

The SECP has explicitly told the VC companies that it will ensure that business ethics are adhered to and investors' interests are fully safeguarded. Apart from this, in order to boost the investment in venture capital industry, the government has given tax exemption for seven years, effective June 2000 to June 2007.

4.2 CHANGES TO ATTRACT INVESTMENT IN IT SECTOR

IT exports of Pakistan which stood at US $25 million could multiply by ten times through the government initiatives that are being taken.[18] The Security and Exchanges Corporation of Pakistan has worked on the amendments in 'Venture Capital Laws' to woo investment in the Information Technology sector. the Government has recently announced a 53 percent decrease[19] in the internet bandwidth rate for the promotion of the use of internet and e-mail in the country…this ultimately would provide an encouragement for the VC firms to flourish.

4.3 VENTURE CAPITAL COMPANIES

4.3.1 TMT Ventures

Still new in Pakistan, it is piloted by the just-launched TMT-PKIC Incubation Fund. It has financing by the Pakistan Kuwait Investment Company (PKIC), and several others. It is a Rs250 million fund.

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[18] Venture Capital laws: Changes to attract investment in IT sector, (date created 30 April 2000), http://dawn.com/2000/04/30/ebr1.htm, (accessed 17 August, 2005)

[19] Venture Capital laws: Changes to attract investment in IT sector, (date created 30 April 2000), http://dawn.com/2000/04/30/ebr1.htm, (accessed 17 August, 2005)

Investors that have joined hands in forming the fund, besides PKIC, TMT Ventures, include Habib Bank Ltd, National Investment Trust, SME Bank and AKD Securities. The fund has an 8-year life span. Its objective is to finance start-up and early stage companies in high growth telecom, technology and media. [20]

4.3.1.1 Performance of TMT-PKIC Incubation Fund

TMT-PKIC portfolio performance has been remarkable. It can be seen from the 8 companies which are its incubatees. The companies are:

1. 2B Technologies
2. yEvolve
3. ApplicationXS
4. Post Amazers
5. Voxel Communications (Pvt.) Ltd.
6. Pro-Vision Ltd.

2B Technologies

2B Technologies operates in the Customer Relationship Management domain of call/customer care solutions. Its solution offers one-window computer telephony integration with standard customer service solutions.

20 Muhammad Aftab, 2003, New mode of finance in Pakistan, (date created 5 May 2003),http://www.arabnews.com/?page=6&section=0&article=25870&d=5&m=5&y=2003, (accessed 17 August, 2005)

Most of its clients belong to Fast Moving Consumer Goods (FMCG), banking and telecom sectors. 2B Technologies major clients constitute: Unilever, Muslim Commercial Bank & Mobilink.

The achievement of each its clients, and thus 2B technologies achievements are stated below:

Unilever, Pakistan's largest FMCG Company in Pakistan bought the first of its kind Customer Interaction Center (Lever Rabta), which is already catching tremendous customer attention.

Second major client is Muslim Commercial Bank. Self-service banking and call centre solution for nation-wide deployment has been provided by 2B Technologies. 2B won the largest contract of its kind in Pakistan beating Nortel, IBM and Alcatel.

2B also provides its call center solution to Mobilink which is the largest mobile telecom company in the country.

Apart from the above achievements, 2 B technologies has been awarded a prestigious award from Intel (a key supplier) a "Platinum Partner" status, which no other company enjoys in Pakistan.

yEvolve

yEvolve specializes in next generation wireless solution for Sales Force Automation. This helps sales managers build more timely and robust relationships with retailers and facilitates better inventory management. yEvolve key clients include Pakistan Tobacco Company, Unilever Pakistan and Proctor & Gamble.

Unilever Pakistan has been provided the Executive sales alert system and Proctor & Gamble has been provided with a Work flow solution by yEvolve. yEvolve has also Developed handheld and web based reporting solution for Pakistan Tobacco Company.

ApplicationXS

AppXS specializes in the dual domains of Online Stock-trading and Banking solutions. AppXS has developed Virtual Trade Automation Management System (VTAM), a real time trading, risk management and settlement solution which is being used by AKDtrade.com, Pakistan’s first online stock-trading company. On the banking side, the company has developed Commercial, Investment and Internet Banking solutions.

Post Amazers

Post Amazers is the largest and most resourceful Animation and Post-production house in Pakistan. It has achieved this status within one year of its inception in January 2002.

The company has become cash flow positive within one year of operations. It has done over 120 jobs in the past 12 months whose majority was for the top four advertisers in the country.

Key clients include Reckitt Benckiser, Lakson Tobacco and Unilever Pakistan. It has also signed up with top 15 Hollywood animation companies to jointly work on projects[21]

RFM Loyalty (Pvt.) Ltd.

RFM Loyalty is in POS terminal business and also provides next generation smart card based loyalty services to banks, corporates and retail merchants.

UBL has become RFM's first major client while it is also signing up other banks and corporate. RFM has also launched its own Lifestyle card which facilitates merchants to transform their loyalty and promotional campaigns on a chip card to enhance their sales and improve understanding of their customers.

[21] www.pakistaneconomist.com

Voxel Communications (Pvt.) Ltd.

Voxel Communications is a provider of top notch offshore customer contact solutions. It is one of the pioneers in setting up operations and technology infrastructure of call centers in Pakistan. The company provides customized solutions, telemarketing and business process outsourcing.

The company has secured up positions with not only multiple foreign clients, but also large local client, i.e. PTCL. This ensures maximum use of its infrastructure, thus optimizing Return on Investment (ROI).

Pro-Vision Ltd.

Pro-vision was formed in April 2004 as a holding company for two of the Fund's investments - 2BTechnologies and Voxel Communication. The idea was to create a single platform for the two call center related investments without each company losing its independence and culture. Pro-vision has become more active recently as it has positioned itself as a call center infrastructure (hardware + software) providing company to clients in Pakistan as well as outside. The model is to help small to medium sized call centers grow in the US (and other foreign markets) without acquiring them or moving business from there. A US-based call center company is identified to be the first foreign client for Pro-vision while Voxel is its first client in Pakistan.

AKN MTech (Pvt.) Ltd.

AKN MTech is a joint venture between AKN MTech, a leading Malaysia-based mobile content company and yEvolve, a portfolio company of TMT-PKIC Incubation Fund. AKN aims to capitalize on the exploding mobile market in Pakistan by providing different kinds of content people wish to download on their mobiles, e.g. ringtones, picture messages, animations, java games, etc. AKN has signed up exclusive agreements for mobile with local music labels that effectively control 85% of all music content produced in Pakistan. With the launch of Telenor's mobile service in Pakistan in March 2005 AKN MTech has started revenue generation within the first 12 months of investment.[22]

The above mentioned success of each of the incubate shows that that TMT-PKIC Incubation Fund is being managed pretty well and its performance is exemplary.

4.3.2 TRG Pakistan

TRG is a leading provider of capital and operating solutions to companies active in the business services sector. The company takes both primary equity positions by providing liquidity to existing shareholders as well as investing directly in companies that could benefit from additional capital. The company takes an active role in structuring and executing operating solutions for their portfolio companies. TRG is

[22] TMT ventures limited, Portfolio Companies, 2002, http://www.tmtventures.net/portfolio_com.asp (date accessed 5th September 2005)

a continuing partner to its investee companies, providing ongoing equity capital and global operational support. [23]

TRG Pakistan is a holding company of TRG USA. TRG Pakistan acquires foreign & local companies (call centers and other BPO[24] services) through TRG international….All funds raised by the TRG Pakistan are deployed into a 100-per cent stake in TRG International, which in turn holds a series of controlling interests in its acquired US-based call centre companies and also owns the Pakistani facility/service delivery vehicle. Once these acquisitions are over, the positive cash flows from call centre operations as well as capital gains from possible sale of the companies is shifted to TRG Pakistan and made available for dividends.

The TRG concept is centered round labor arbitrage between the US and Pakistan. The company wants to improve the profitability of its portfolio by acquired companies by shifting their service delivery to its low cost offshore facilities in Pakistan.[25]

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[23] The Resource Group, 2005, http://www.resgrp.com/trg/abouttrg.html (date accessed 5th September 2005)

[24] Business Process Outsourcing (BPO) is essentially a strategy by which a company offloads back-office operations to reduce costs and to put more resources towards its business strengths/ core-competencies.

25 Jawaid Bokhari, 2002, Information Technology creating new generation of entrepreneurs, The Dawn, (date created 3rd November, 2002), http://lists.isb.sdnpk.org/pipermail/comp-list/2002-November/001517.html (date accessed 6th September 2005)

4.3.2.1 Performance of TRG Pakistan Ltd.

The company was established in 2002, and had consolidated revenues of approximately $280,000 during that year.[26]

Only 26 months young, TRG is today the largest offshore-controlled call centre company in the world, boasting an impressive clientele of 2000 companies, including leading Fortune500 companies. It has 18 facilities worldwide, counting 15 in North American, one in Europe and two in Pakistan; it has 3000 employees with current revenue figures peaking at 130 million dollars. [27]

Thus, TRG has accomplished a lot in a short time period. Its performance is exemplary.

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[26] International finance corporation, 2005, http://www.ifc.org/ifcext/mena.nsf/Content/SelectedProject?OpenDocument&UNID=DABC4EA3B127585985256E2F00786BCB(date accessed 5th September 2005)

[27]Salman Siddiqui, 2005, Millionaire Dreams, Newsline, (date created March 2005), http://www.newsline.com.pk/NewsMar2005/spreport2005.htm (accessed 6th September 2005)

Chapter 5

EMERGENCE AND PRE-EMERGENCE: ISRAEL, INDIAN AND UNITED STATES MODEL. LESSONS FOR PAKISTAN

5.1 INTRODUCTION

The objective of this part of the thesis is to analyze the most appropriate background conditions that can be stimulated by the government and the policies that can be adopted for an effective and a fast growth of high tech-venture capital industry, in Pakistan.

In order to do this, the approach that has adopted id that the time horizon has been divided into two eras:

a) Pre-emergence Venture Capital

b) Emergence of Venture Capital

In each of these categories, three countries have been taken into account:

i) Israel

ii) India

iii) United states

Thus the format of this part of the report looks like this:

a) Pre-emergence Venture Capital

- i) Pakistan
- ii) Israel
- iii) India
- iv) United states
- v) Implication for Pakistan

b) Emergence of Venture Capital

- i. Israel
- ii. India
- iii. United states
- iv. Implication for Pakistan

The reason why I have taken these countries is stated below:

i. Israel

Israel adopted such Policies which resulted in a very fast growth of venture capital industry. Although the country is developed and initially had very suitable/background conditions for the growth of VC, there are policies which can adopted by Pakistan.

ii. India

India background conditions are very similar to Pakistan. Both are developing countries, both have a high level of bureaucracy and corruption. Overall, the culture is also similar.

iii. United States

United States is that country which initiated the idea of venture capital. It was the first country which passed through the stages of Emergence, Pre-emergence, consolidation and ultimately saturation. Thus there is a lot that can be learnt from US that can be applied to Pakistan.

5.2 PRE- EMERGENCE OF VENTURE CAPITAL

"Pre-emergence" period of Venture capital means having favorable background conditions. In this thesis the favorable background conditions are in terms of innovative capabilities… a pre-existing high tech industry which develops considerable innovation capabilities.

The pre-emergence of VC has become favorable world wide due to the globalization of technology capital markets, expanding market for communications & internet –related equipment & software on the other.

5.2.1 Pakistan

Pakistan is still in its pre-emergence stage. Government is making efforts to boost VC industry. Example, in order to boost the IT industry, following has been done:

- The Security and Exchanges Corporation of Pakistan has worked on the amendments in 'Venture Capital Laws' to woo investment in the Information Technology sector

- The government has taken different initiatives in order to develop the technology industry in Pakistan. The detail of this has been given under section 5.2.1.2.

The law which governs the VC industry in Pakistan is “The Venture Capital Companies and Venture Capital Funds Rules, 2001”. Laws, which are most relevant to this report, have been highlighted in the section given below:

5.2.1.1 The venture capital companies and venture capital funds rules, 2001

Following states the venture capital companies and venture capital funds rules, 2001:

i. Eligibility conditions for grant of license to a venture capital fund.-

a. It is incorporated as a public limited company under the Companies Ordinance, 1984 (XLVII of 1984);
b. It is not engaged in any business other than that of investment in venture projects;
c. It has a minimum paid-up capital of fifty million rupees raised through private placement;
d. Not expose more than forty per cent of its equity to any single group of companies;
e. Ensure that the maximum exposure of the venture capital fund to its directors, affiliated companies and companies in which any of the directors and their family members including spouse, dependent lineal ascendants and descendants and dependent brothers and sisters hold controlling interest shall not exceed ten per cent of the overall portfolio of venture capital;
f. Not accept any investment from any investor, which is less than one million rupees.

g. The notification also clarifies that the venture capital companies and venture capital funds shall not be eligible for listing on the stock exchanges and investment in the following activities:

1. Arms and ammunition
2. High explosives
3. Radioactive substance
4. Security printing, currency and mint
5. Manufacture of alcoholic beverages or liquors
6. Environmentally hazardous projects
7. Gold financing
8. Non-bank financial institutions
9. Real estate

b) The company has separate tiers of minimum equity in respect of the following forms of business as mentioned against each activity, namely:-

i) Investment finance services	Rupees three hundred million;
(ii) Leasing	Rupees two hundred million;
(iii) Venture Capital investment	Rupees five million (for a venture capital company);
(iv) Discounting services	Rupees two hundred million;
(v) Investment advisory and asset management services	Rupees thirty million
(vi) Housing finances services	Rupees one hundred million.

ii. The profits and gains derived by venture capital companies and venture capital funds are exempt from tax for a period of seven years effective from 1st. July 2000 as per Central Board of Revenue's notifications dated 18 December 2000 and 24 February 2001. One of the requirements to qualify for the tax exemption by such companies is to invest in the 'venture projects' notified by the SEC from time to time.[28]

From above we can see that the government has been taking major initiatives to boost VC…even from IT perspective….example tax exemption, minimum required capital being relatively low. However, there are still many improvements which can be done at this stage. There are different policies/incentives which the government can provide. What these incentives/policies are, can been seen from the example of other countries. Most relevant policies of these countries have been mentioned, which complement to Pakistan.

5.2.1.2 Incentives for the development of the software industry in Pakistan

The Government of Pakistan has provided enormous incentives to investors for promoting IT industry in the country. Incentives such as given below, have given a boost to the local software industry.

[28] The Venture Capital Companies and Venture Capital Funds Rules, 2001, http://www.vakilno1.com/saarclaw/pakistan/venture_capital_companies_and_funds_rules/venture_capital_companies_and_ve.htm, (accessed 18 August, 2005)

5.2.1.3 Fiscal and Corporate Incentives

- Set up development center in Pakistan and get all the technical and management training for free.
- Provision of funds for software companies to get ISO-9000 and CMM level certifications.
- Get set-up infrastructure for free by setting up call centers and data service centers.
- Foreign investors allowed 100% ownership of equity in "Software Houses/Software Companies"
- Software developed fully or partially in Pakistan, will be protected by law from piracy. Complaints can be lodged with PSEB.
- Tax exemptions for IT companies till 2018.
- 100% repatriation of profits allowed to IT companies.
- No custom duties on import of IT related equipment.
- 7 years tax holiday for Venture Capital funds.
- No sales tax liability on sale of computer software and hardware.
- Financial assistance will be provided to the "Software House / Software Company" by extending the facility of Export Financing Scheme - Refinance for Export of Computer Software by the Software Houses/Companies and in the shape of loans to software houses/companies from nationalized commercial banks. The State Bank of Pakistan has fixed export re-finance limit of 50% of last year's exports. " Software Houses / Software Companies" are allowed to re-export capital goods without any levies.

- The State Bank of Pakistan (SBP) has allowed opening of Internet Merchant Accounts by banks.

5.2.1.4 IT Infrastructure

- 155Mbps connectivity available.
- Over 85% of telecom infrastructure on fiber optic cables.
- Internet access in over 400 cities.
- Leased lines delivered within 8 weeks.
- DSL deployment in local loop.
- Three cellular companies(GSM and TDMA) [29]

The above initiatives would certainly multiply the IT exports by a large amount.

5.2.2 Israel

The two most successful adopters of U.S. –style venture capital practice are Taiwan and Israel, in both cases the national governments played a significant role in encouraging the growth of venture capital. Israel is a close ally of US. It has good economic records and operates with minimum of Corruption.

Very favorable conditions were created in Israel during the 80s and early 90s which later gave a final boost to the emergence of venture capital.

[29] Venture Capital laws: Changes to attract investment in IT sector, (date created 30 April 2000), www.lastcorner.com/LCT/outsource.asp, (accessed 17 August, 2005)

The favorable conditions were:

- R&D/Innovation capabilities
- links with US product & capital Markets
- Achievement of macroeconomic stability
- Process of capital market liberalization.

5.2.2.1 Horizontal R&D program

This was a program adopted by Israel in the pre-emergence stage. The objective of this program was to create favorable background conditions for the emergence of venture capital in Israel. The program offered grants to the start ups which wanted funds for research and development.

The horizontal policy implemented helped create favorable background conditions in terms of innovation capabilities & emergence of high –tech within the business sector; and a subsequent targeted policy directed to the VC industry. This policy was a part of the Innovation & Technology Policy" (ITP) This program extended grants to R&D performed by business enterprises since the early 1970s. These grants covered approximately 50% of "approved" costs of projects submitted to and accepted by the Office of the Chief Scientist, Ministry of Industry and Trade

(OCS). Consistent support was given throughout the Pre Emergence as well as the VC industry Emergence. It was open to all firms independent of sector or technology. [30]

5.2.3 India

As said before in section 5.1, India has pretty similar background conditions to Pakistan. Thus its pre emergence era was also similar to what Pakistan is facing now.

India's First Phase of the VC industry was 1986-95. It was in this era the background conditions were created…or precisely as the "pre-emergence" of venture capital. Below, the conditions/pre-emergence factors have been highlighted:

- By 1960s India had one of the most sophisticated stock markets in any developing country.
- A major factor favorable to the creation of a VC industry was (and continues to be) the availability of ample numbers of excellent engineers, programmers and scientists willing to work at relatively low wages. This helped to trigger emergence of India's software industry and attracted foreign engineering operations to India.
- The ideology & philosophy favoring SMEs as well as support to these firms since Independence. Even though SMEs were in traditional industries they did indicate a 'culture of private enterprise'.

30Gil Avnimelech Morris Teubal, 2002, Venture Capital Policy In Israel: A Comparative Analysis & Lessons For Other Countries, (date published October 2002), www.insme.info/documenti/teubal.pdf, (accessed 17 August, 2005)

- Government began to liberalize the computer and software industries by encouraging Exports. A targeted policy approach to the development of the software industry began.

The formalization of the Indian venture capital community began in 1993 with the establishment of the Indian Venture Capital Association (IVCA) headquartered in Bangalore. The IVCA had a large agenda and a large task in its efforts to improve the venture capital environment in India. To improve the environment, the IVCA continually lobbied the government. For example, in May 1998 in a letter to the Finance Minister the then Chairman of IVCA, Vishnu Varshney (1998) presented the industry's suggestions on several issues including:

1. The retention of some special tax privileges that the Ministry was planning to withdraw,
2. Permission for pension funds, insurance companies and mutual funds to invest in venture capital funds,
3. Permission for investment by venture capital funds in instruments other than pure equity (such as preference shares),
4. A relaxation of IPO guidelines
5. An inclusion of the services industries other than software, which was already included, as eligible investments.

The result of this lobbying effort was mixed: the tax privileges were retained, there was a progressive liberalization in IPO guidelines, and some financial institutions, such as banks and mutual funds (though not pension funds and insurance funds), were permitted to invest up to 5% of their incremental funds in venture capital.

These lobbying efforts to improve the environment for venture capital were continuous and gradually had results. After the budget in 2000, the government responded by removing the 20% tax on income of a venture capital fund and allowing domestic venture capital funds tax pass-through status.

After analyzing what has been done to create favorable conditions, the impediments to the growth of the venture capital industry has been described below:

- In sharp contrast to the U.S., where a venture capital fund can invest in any industry it wishes, in India only six industries have been approved for investment: Software; Information technology ; Pharmaceuticals; Biotechnology; Agriculture and Allied industries. The result of these various regulations has been a channeling of venture capital investment towards late-stage financing.
- Impediments to the development of venture capital also exist in India's corporate, tax, and currency laws. India's corporate law did not provide for Limited Partnerships, Limited Liability Partnerships or Limited Liability Corporations (LP, LLP, and LLC, respectively). Moreover, corporate law allowed equity investors to receive payment only in the form of dividends (i.e., no in-kind or capital distributions are allowed).
- India's regulatory framework inhibits practices used in the U.S. to reward employees of startup Firms. Currently, in India founders and employees can participate in employee stock option programs, if the firm is private, defined as those having less than 50 non-employee shareholders. However, for firms with more than 50 non-employee shareholders, India's corporate law does not provide

flexibility in using equity to reward employees. This is a significant handicap in recruiting and motivating high-quality management and engineering talent.

- India’s Foreign currency regulations have proved to be a significant impediment to the growth of venture capital as well. Most important, the Indian rupee is non-convertible. The lack of convertibility hampers venture capital inflows from offshore because specific, time-consuming Governmental approvals from multiple agencies are required for each investment and disinvestment. The currency regime inhibits international venture capital firms from investing in India.
- Indian venture capital firms are not allowed to invest offshore.

From above we can see a lot of lessons that can be learnt from the pre-emergence of VC in India, and applied to Pakistan. However, this would be covered in the later part of this “pre-emergence” section.

5.2.4 United States

United States is where the concept of VC first emerged. Countries like Israel and Taiwan copied its logic and applied to their countries…example focusing on R&D and boosting the demand side of the VC. What follows below is the pre-emergence era in United States. It describes the activities tat took place in the till 1980s, which led to the final emergence of VC in 1990s.

- In 1954 the Small Business Administration was created in order to improve the Government’s ability to promote formation and success of small businesses and in

1958 the SBIC Act was published. The SBIC Act allows private investment Companies that invest in startup companies to receive loans in preferred terms. This was probably the most important VC-directed incentives' Program in the US.

- The “escalating” stock market activities in the 1970’s and 1980’s, which made it easier to issue new companies.
- A series of changes in public policy—most notably reductions in the rate of

Taxation on capital gains (Revenues Act of 1978 and Tax Recovery Act of 1981--Reduce capital gain tax from 49.5% in 1977 to 20% 1981),

- Allowing pension funds to invest in VC (1978)
- The Small Business Innovation Research Program (SBIR) is program under which a portion of a Federal agency's research or research and development effort is reserved for award to small businesses. In this case of pre-emergence of venture capital, the SBIR Act of 1982 implied that the government VC funds were to invest in the R&D of SMEs.
- The most striking feature during and after VC emergence was the dramatic growth of the limited partnership form as the primary vehicle of VC firms. [31]

31 Martin Kenney & Rafiq Dossani, 2001, Creating an environment: Developing Venture Capital in India, http://repositories.cdlib.org/brie/BRIEWP143/, (accessed 17 August, 2005)

5.2.5 Pre-emergence Venture Capital Industry: Lessons for Pakistan

For Pakistan VC pre-emergence, some steps have been taken, and there are some indicators which provide a boost to the VC industry. Example:

- Overall (at least from looking at the past trend), Pakistani stock exchange has been performing well,
- Macroeconomic conditions have been improving;
- There are excellent engineers, programmers and scientists willing to work at relatively low wages. There are also many who live abroad and are highly educated;
- The venture capital investment rupees five million (for a venture capital company) is comparatively less as compared to other companies (like housing finances services which require initial set up of Rupees one hundred million).
- Profits and gains derived by venture capital companies and venture capital funds are exempt from tax for a period of seven years and so on.
- Decrease in the internet bandwidth rate for the promotion of the use of internet and e-mail in the country
- The Pakistani rupee is freely convertible. For exchange rate purposes, the United States dollar is the intervention currency.[32] This currency regime would encourage international venture capital firms to invest in India.

32 Country profile of Pakistan, monetary system : Currency, exchange rate, http://www.techno-preneur.net/bisnet/countries/pakistan13.htm, (accessed 17 August, 2005)

However, there is much more that can be established at this point in time, especially after seeing what the other countries (Israel, US and India) have gone through.

The details of what each country has gone through have been mentioned before. Here, I would just summarize the same things which Pakistan can do…and take into account while establishing its policies.

Pakistan currently has a rule which states that in order to establish a venture capital fund; the company has to be incorporated as a public limited company. This is limitating the scope of VC…it has been seen through the examples of Israel and US that limited partnerships, Limited Liability Partnerships or Limited Liability Corporations prove to give a higher growth of the venture capital industry. LP has turned out to be the most suitable VC company structure –for tax, regulation, legal factors, flexibility reasons etc.

The corporate law should also allow equity investors to receive payment in the form of dividends.

It is also a law in Pakistan that the venture capital company must not be engaged in any business other than that of investment in venture projects. However, by looking at the example of other countries such as Israel and US, allowing other financial institution such as banks, mutual funds, pension funds and insurance funds to invest in VC creates a more favorable environment to VC.

Taking the example of India, the Government can liberalize the computer and software industries by encouraging Exports and give more relaxation to relaxation of IPO guidelines. There are conditions which India still has not implemented, but plans to do in future…Pakistan can relate itself to this too. Example investing by venture capital funds in instruments other than pure equity (such as preference shares)… and allowing to reward employees of startup Firms in the form of employee stock option programs.

Other policies which can help to initiate a much more favorable VC environment can be introducing programs such as Horizontal R&D program (Israel) and SBIR program- government VC fund investing in seed R&D of SMEs (US).

In US, the SBIC Act, allowing private investment Companies that invest in startup companies to receive loans in preferred terms. A similar instrument/policy can also be adopted in Pakistan, giving a boost to the Pakistani Venture capital industry.

5.3 EMERGENCE OF VC

VC emergence is characterized by a high rate of entry of new VC companies and a high rate growth of VC activity. At this stage VCs learn from each other (collective learning); and in parallel to each other, they also co-operate. Pre-emergence conditions enable an appropriate design of targeted VC policies.

VC Emergence stage finally converges into a state of VC industry consolidation. It should be remembered that what follows below is keeping the emergence of high tech VC industry emergence through looking at the examples (and thus lessons) of VC industry. These are the programs/initiatives that *actually* led to the emergence.

5.3.1 Israel

Favorable conditions were created in Israel in the stage of pre-emergence. A program in Israel which actually *led* to the emergence stage of VC was the Yozma Program. VC emergence (1993-8) was preceded by a 3-4 year pre-emergence period (1989- 92).

5.3.1.1 Yozma program

Yozma program was based on a $100M Government owned VC fund oriented to two functions:

a) Investment in private VC funds ('Yozma Funds'-$80M)

b) Direct investments in High tech companies-$20M (through the Government –owned 'Yozma Venture Fund').

The basic thrust was to promote the establishment of domestic, private Limited Partnership VC Funds that invested in young Israeli high tech startups ('early phase investments") with the support of government and with the involvement of reputable foreign Financial/investment institutions (generally a foreign private equity company with or without a VC arm). Such funds must be managed by independent, Israeli VC Management Company. Each 'Yozma Fund' would have to engage one such foreign Institution together with a well-established Israeli financial institution.

An approved fund that fulfilled these conditions, the Government would invest around 40% (up to $8M) of the funds rose. Thus $100M of Government Funds would draw $150M of private Sector funds (domestic and foreign). Yozma did not simply provide supply, risk sharing incentives to investors—as was common in other Government VC support programs (it did not provide guarantees nor tax benefits; nor was it accompanied by new regulation rules for Pension Funds); its main incentive was in the 'upside' that is when VC investments were very profitable. Each Yozma fund had a call option on Government shares, at Cost (plus 5-7% interest) and for a period of five (5) years.

The program also assured the realization of 'supply side learning' through the Compulsory participation of foreign Financial Institutions ('learning from others"-a Standard mechanism of infant industry development in developing countries);

'Demand side' support was provided not by Yozma itself but by the Backbone 'R&D support & Technological Incubators Programs. Another major point was the pursuing of an aggressive investment policy, lead by Yozma Venture Fund. A total of 10 private 'Yozma funds' were created by the Yozma Program.

The table below summarizes the design of the Yozma Fund:

Table 5 : Critical Dimensions of Yozma Program Design
Favored type of VC company (Limited Partnership, Closed End Fund): Nine of the Funds adopted this form of organization, the remaining one was a Public VC Fund
A focus on Early Phase investments in Israeli high tech Startup companies

Target Level of Capital Aimed at 200-250M$ (Government Support- 100M$)- this was the 'Critical Mass' of effort required for VC industry 'emergence'
A multiplicity of privately owned Israeli VC Funds (10) ***each one managed by a local management company& involving at least one Reputable Foreign Financial Institution (and one important Domestic Financial Institution)***
Government Participation in each Fund-8 million dollars (in most Yozma Funds this represented 40% of the 20 M$ raised)
A 20M$ Government Fund which directly invested in Israeli High Tech companies: ***This VC was called 'Yozma Venture Fund'' (which should be distinguished from the Yozma*** Program). Its aggressive investment policy stimulated investments by Yozma Funds.
Strong Incentive to the "Upside"- the possibility, within a 5 year period, of purchasing Government's share at approx. at cost (all Funds except 3 made use of this option). ***There Was no downside 'guarantee'.***
Planned 'Privatization' of Yozma Venture Fund: took place in 1997. This previous Features assured that the Yozma program was ***Catalytic Program.***
The Yozma Program triggered a strong process of collective learning.

Source: Gil Avnimelech Morris Teubal, 2002, Venture Capital Policy In Israel: A Comparative Analysis & Lessons For Other Countries, (date published October 2002), www.insme.info/documenti/teubal.pdf, (accessed 17 August, 2005)

The major advantages of the Yozma Fund were:

- Entry of high quality, professional agents & VC management teams.
- “Intelligent” capital from abroad.
- A successful learning process
- Network of international contacts
- Created a critical mass of VC investment in Israel (learning &positive feedback process followed)
- Very high private VC performance
- Follow up funds and strong growth of capital
- Yozma Venture Fund started to invest immediately. This encouraged other VCs to invest
- Strong early profitability was due to very good exits from early investments; and this led immediately to Venture Capitalists worldwide and to business agents domestically to consider investing in Israeli VCs & to cooperate with them, hence the onset of Cumulativeness and a positive reputation effect.

A quantum jump in VC activity after Yozma can be seen from the data below:

Capital Raised and new SUs backed by Israeli VC firms

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Total
Total Capital Raised	58	160	372	374	156	397	727	675	1752	3288	1600	8559
NewVC backed SUs	10	20	80	90	80	200	219	252	338	513	221	1802
New SU	40	40	50	50	100	200	350	350	550	850		2605

* Source IVA (statistics and estimates).

Table 6: Capital raised and new SUs backed by Israeli VC firms

Israel's high Tech Cluster of the 90s

YEAR	*99/00*	*90*	*80*
Number of SU:	*~3000*	*~300*	~150
Number of VC Companies:	*~100*	*2*	0
Funds Raised by VCs: M$	*3400*	*~49*	0
Capital Invested by VCs: M$	*1270*	*~45*	0
Accumulated No of IPOs (high tech):	*~150*	*9*	1
Accumulated VC-backed IPOs:	*~80*	*3*	*1*
Share of Foreign Sources in Total SU funding:	*67%*	*NA*	*NA*
Share of IT Exports in Total Manufacturing Exports:	*45.7%*	*~33%*	~20%
Mergers and Acquisitions(M&A): B$	*~10*	*NA*	*NA*

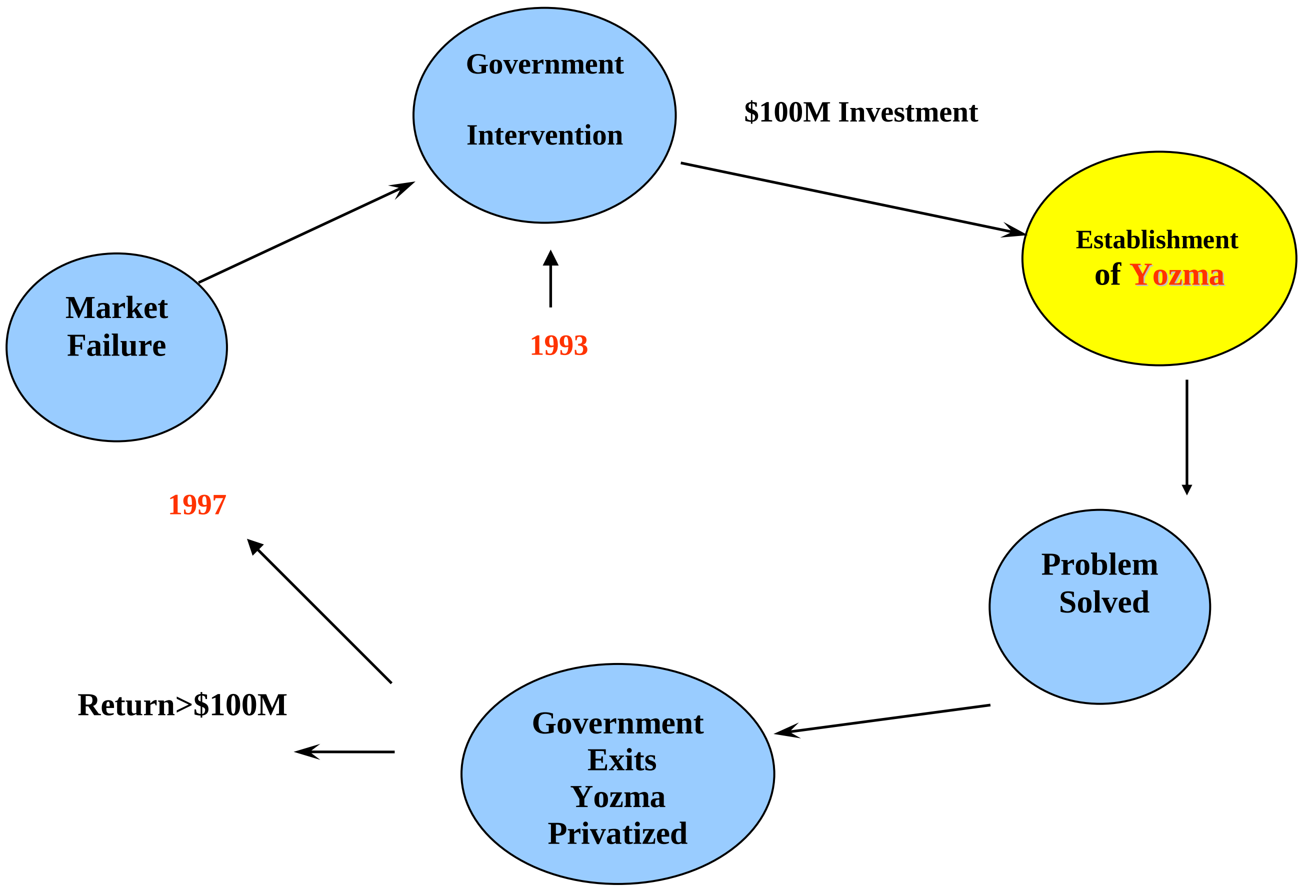
Source: SU numbers come from three sources: CBS, OCS and IVA.

* Frequently the figures in the box are approximations due to gaps in data, multiples sources of information, and fragmentary information from non-official sources

Table 7: Israel's high tech cluster of the 90s

The above Tables show a significant increase in SU numbers occurred during VC Emergence. It shows a strong VC-SU co evolution. A rapid growth of the VC industry both in terms of Capital raised and in terms of number of funds active in the industry can be seen.[33]

33 Gil Avnimelech Morris Teubal, 2002, Venture Capital Policy In Israel: A Comparative Analysis & Lessons For Other Countries, (date published October 2002), www.insme.info/documenti/teubal.pdf, (accessed 17 August, 2005)



Source: Yigal Erlich, The Yozma Program -Success Factors & Policy, ifise.unipv.it/Convegno/The Yozma progr - Erlich.ppt, (date accessed 8th September 2005)

Figure 8: Government as a catalyst

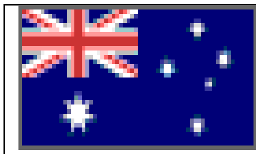
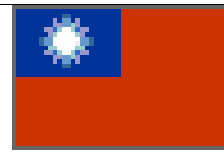
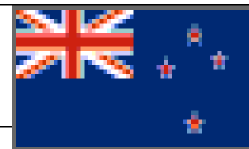
 a	
 lovakia	 land
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Table 8: Countries following the Yozma example

Source: Yigal Erlich, The Yozma Program -Success Factors & Policy, ifise.unipv.it/Convegno/The Yozma progr - Erlich.ppt, (date accessed 8th September 2005)

5.3.2 India

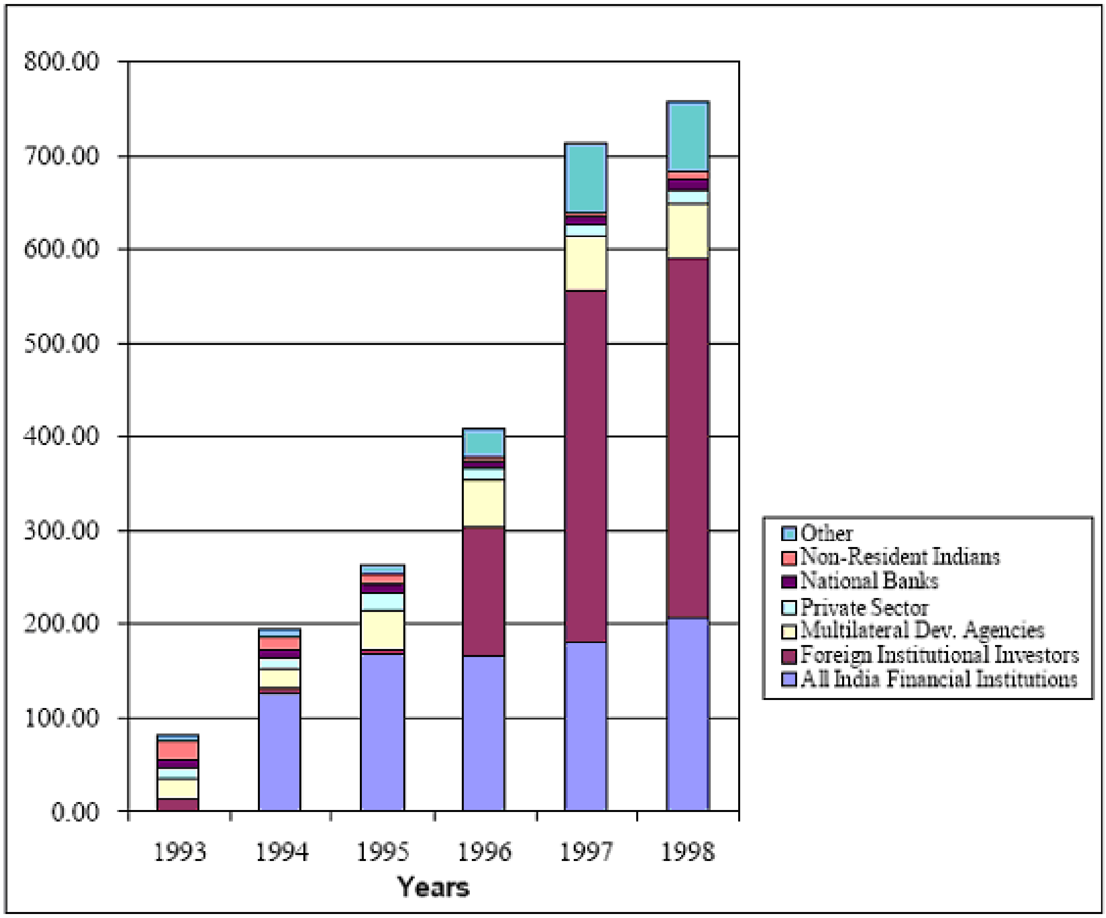
The main reason which led to the emergence in India were the Non-Resident-Indians (NRI). These were those Indian entrepreneurs who had become successful in Silicon Valley during the 90s. This encouraged the notion in the US that India may have a pool of potential entrepreneurs. This factor undoubtedly must have increased the interest of foreign VCs and of NRI in considering VC investments in the country.

Other reasons which led to the emergence of VC industry were the globalization of Capital markets, the larger number of active NRI and a growing software industry. Despite the possibility that a self-reinforcing Co-evolutionary process could lead to VC emergence even in the absence of Government intervention, India is a developing country which still requires Government support.

However, one thing to be mentioned here is that, unlike Israel, there were no direct incentives given to the VC companies (example allowing for LP or having VC directed programs such as Yozma Program). This is a failure by omission of India's ITP in the VC area.[34]

The following chart shows that the interest of the foreign investors and the Non-resident-Indians has increased over the years.

34 Martin Kenney & Rafiq Dossani, 2001, Creating an environment: Developing Venture Capital in India, http://repositories.cdlib.org/brie/BRIEWP143/, (accessed 17 August, 2005)



Source: Indian Venture Capital Association, various years.

Figure 9: Capital under management by the Indian venture capital industry by year in U.S $ Millions

5.3.3 United States

Factors which led to the emergence in US are more or less which have been mentioned before in the US-Pre-emergence section. They can be briefly recalled as:

- The “escalating” stock market Activities in the 1970’s and 1980’s, which made it easier to issue new companies.
- A series of changes in public policy—most notably reductions in the rate of Taxation on capital gains (Revenues Act of 1978 and Tax Recovery Act of 1981--Reduce capital gain tax from 49.5% in 1977 to 20% 1981),
- Allowing pension funds to Invest in VC
- The Small Business Innovation Development Act of 1982 (SBIR program-government VC fund Investing in seed R&D of SMEs)
- Dramatic growth of the limited partnership form as the primary vehicle of VC firms.
- A VC industry can thrive on a sustainable basis only if new scientific-technological Based innovation & business opportunities are continuously being created in the System. It is no surprise then that VC Backed startups were involved in the establishment of entirely new industries such as Semiconductors, Biotechnology, and Internet. This explains the VC-SU co evolution….and how the innovation led to the high economic growth of the country. [35]

5.3.4 Emergence of Venture Capital Industry: Lessons for Pakistan

Pre- emergence conditions enable an appropriate design of targeted VC policies. As said before, Pakistan is still in its pre-emergence stage; emergence is yet

[35] Martin Kenney & Rafiq Dossani, 2001, Creating an environment: Developing Venture Capital in India, http://repositories.cdlib.org/brie/BRIEWP143/, (accessed 17 August, 2005)

to be witnessed. After studying the three country models, different lessons can be learnt from each country.

From Israel VC-emergence-model, we have learnt that Yozma Program was the ultimate program which led to a very high growth of VC, as well as VC-SU co-evolution. This program also involved learning from the "intelligent" capital abroad, compulsory participation of foreign Financial Institutions etc, Early Phase investments. Other advantages and details have been given before in the relevant sub-section. Thus, a similar model to Yozma program can be applied here in Pakistan, an initiative that has to be taken by the government of Pakistan. This model is followed not only by Israel itself, but also other countries.

From the India VC-emergence-model, we can see that the Non-Indian-residence have played a major role in the growth of VC. In Pakistan a similar strategy can be adopted. Quite a number of Pakistanis work in the Silicon Valley, with appropriate incentives given here in Pakistan (example through favorable pre emergence factors), they can come and invest here. They can invest as the angel investors (just like many NRIs).

A VC industry can thrive on a sustainable basis only if new scientific-technological Based innovation & business opportunities are continuously being created in the System. Thus it is important that Pakistan has to make its base for pre-emergence important.

CONCLUSION

The purpose of this thesis is to identify the challenges and opportunities of venture capital in Pakistan.

It is important to have a venture capital in Pakistan. This can be said so because venture capital carries an importance for not only the venture capitalists themselves, but also the entrepreneurs and investors. The importance can be further seen from the role of VC in enterprise development in developing countries. It carries a great importance as this ultimately helps the economy as a whole to grow. Similarly, Pakistan can also benefit a lot from this. Continuing with the importance of VC in Pakistan, it has also been explained that micro venture capital has more advantages than micro financing. This has been proven by Goldman Sacs. Now it is important to take the opportunity of micro venture capital and not only focusing on micro financing as it is currently being done by Pakistan. Banks such as Khushlai bank can introduce this concept. Again continuing with the importance, as Pakistan is an Islamic state; venture capital was looked from the Islamic perspective. It has been stated as Hilal by the Ulema.

A lot of opportunities exist in Pakistan for venture capital. In this project a comparison of Pakistan with other Asian countries was made…highlighting technology, media and telecom potential. Some of the sectors with bright prospects are a) Entertainment/leisure (amusement parks, cinemas); Education (universities of international caliber); Computer hardware vendors; Automobile spare parts vendors;

Software development; Fan industry; Surgical instruments and utensils; Apparel/ branded attire (export); Sports goods; Leather garments and shoe manufacturers and Electronic appliances. The conclusion of this section was that the major opportunities existing can be divided into three sectors: (1) Technology (2) Media and (3) Telecom sector. This was concluded after analyzing the current industry and the growth prospects. A venture capital investments are usually in the technology sector, what was focused ahead was the venture capital investments in the technology sector in Pakistan. It has been recommended that Pakistan should consider investing in the world's top 10 emerging technologies such as Airborne Networks; Quantum Wires; Silicon Photonics; Metabolomics; Magnetic-Resonance Force Microscopy; Universal Memory; Bacterial Factories; Enviromatics; Cell-Phone Viruses; and Biomechatronics. Investing here means the involvement of the entrepreneurs, venture capitalists and the investors.

Venture capital in Pakistan is still in its initial stages. There are currently only two firms which are operating. These are TMT ventures and TRG Pakistan. A huge potential lies there which is still unexploited.

The last section of the thesis analyzed emergence and pre-emergence stages of Israel, Indian and United States. The relevant policies that are applicable to Pakistan and those that proved to be successful over time were studied and finally recommended to Pakistan.

Currently Pakistan is still in its pre-emergence stage. The initiatives that have been taken up till now consists of the modification of the "Venture Capital Companies and Venture Capital Funds Rules, 2001" and different incentives (Fiscal & Corporate

Incentives; Efforts to boost the IT Infrastructure) for the development of the software industry. Although Pakistan is still accomplishing, there is still a lot of room for improvement. This can be found out after analyzing the venture capital models of Israel, United States and India). Here, I would just summarize the things which Pakistan should take into account while establishing its policies:

"Pakistan currently has a rule which states that in order to establish a venture capital fund; the company has to be incorporated as a public limited company. This is limitation the scope of VC…it has been seen through the examples of Israel and US that Limited Partnerships, Limited Liability Partnerships or Limited Liability Corporations prove to give a higher growth of the venture capital industry. LP has turned out to be the most suitable VC company structure –for tax, regulation, legal factors, flexibility reasons etc.

The corporate law should also allow equity investors to receive payment in the form of dividends.

It is also a law in Pakistan that the venture capital company must not be engaged in any business other than that of investment in venture projects. However, by looking at the example of other countries such as Israel and US, allowing other financial institution such as banks, mutual funds, pension funds and insurance funds to invest in VC creates a more favorable environment to VC.

Taking the example of India, the Government can liberalize the computer and software industries by encouraging exports and give more relaxation to relaxation of IPO guidelines. There are conditions which India still has not implemented, but plans to do in future…Pakistan can relate itself to this too. Example investing by venture capital funds in instruments other than pure equity (such as preference shares); allowing to reward employees of startup firms in the form of employee stock option programs; making the Indian rupee convertible and allowing Indian venture capital firms to invest offshore (and thus Pakistani).

Other policies which can help to initiate a much more favorable VC environment can be introducing programs such as Horizontal R&D program (Israel) and SBIR program- government VC fund investing in seed R&D of SMEs (US).

In US, the SBIC Act, allowing private investment Companies that invest in startup companies to receive loans in preferred terms. A similar instrument/policy can also be adopted in Pakistan, giving a boost to the Pakistani Venture capital industry."

Now, similarly for the emergence stage, there are different lessons that can be learnt from each country models.

Pre- emergence conditions enable an appropriate design of targeted VC policies. From Israel VC-emergence-model, Yozma Program was the ultimate program which led to a very high growth of VC, as well as VC-SU co-evolution. This program involved learning from the "intelligent" capital abroad, compulsory participation of foreign Financial Institutions etc, Early Phase investments. Thus, a similar model to Yozma program can be applied here in Pakistan, an initiative that has to be taken by the government of Pakistan.

From the India VC-emergence-model, it was seen in this thesis that the Non-Indian- residence have played a major role in the growth of VC. In Pakistan a similar strategy can be adopted. Quite a number of Pakistanis work in the Silicon Valley, with appropriate incentives given here in Pakistan (example through favorable pre emergence factors), they can come and invest here. They can invest as the angel investors (just like many NRIs).

A VC industry can thrive on a sustainable basis only if new scientific-technological Based innovation & business opportunities are continuously being created in the System. Thus it is important that Pakistan has to make its base for pre-emergence important.

The biggest challenge for the Pakistani venture capital industry is that there is no mandate by the government (under some financial regulations act/law etc. similar to those for fund management like "Non-Banking Finance Rules, 2003 of the Securities and Exchange Commission of Pakistan"[36], that requires VCs to have the required skill set to engage in VC activities. Since VCs are like investment banks, they invest people's money; they should have the required skill set.

Due to this non-mandate, failure of venture capital firms has been witnessed. One example is of "Pakistan Venture Capital Ltd" which, after its failure is now operating as "Dawood Capital Management Limited" and is involved in funds management.

The other challenge is that Pakistani venture capitalists lack the expertise. Foreign consultants are needed who already have the expertise of how to go about the projects. However, there is a fear of consultants when in it comes to venture capital industry in Pakistan. The reason for this is the job insecurities. Thus this is a major challenge for Pakistan. A program like Yozma program (which involves a foreign

[36] Saeed & Syed, 2005, Corporate Governannce of mutual funds in Pakistan (created May 2005)http://ravi.lums.edu.pk/cmer/Conference2005/images/Akbar-Corp%20Govern%20for%20Mutual%20Funds1.pdf (accessed September 2005)

institution) can improve local venture capital industry; however, the fear of foreign consultants might cause a hindrance.

Thus, to sum up, there are many opportunities of venture capital in Pakistan. Some steps have been taken but they aren't enough. More can be accomplished through realizing its importance, and applying the lessons learned from other VC successful countries.

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