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# IT companies funding thru venture capital & its trends - A Study

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**Abstract:** The growth of Computer and Semi-Conductor industry mainly on account of assistance of venture capital contributed immensely to the growth of US economy. For IT revolution that is taking place now, seeds have been sown in 1950s and 1960s in USA. Significantly, venture capital industry also started getting active in the USA at around the same time as the Silicon Valley - computer revolution. George Doriot started the ARDC, the first successful venture capital firm. Its first investment worth US $ 1400 million was in Digital Equipment Corporation, which grew phenomenally in terms of sales, number of employees and market worth of its shares. Emergence of large scale integration reduced the cost of computer chips manifold and this factor not only boosted the computer industry but also contributed to the growth of venture capital industry. The roles played by venture capitalists are many: they offer their experience, knowledge and contribute to the growth of companies through their value addition (like strategic and operational guidance, connecting investors (syndicating), connecting customers (marketing), hiring board members and employees), monitoring the financial performance, help their portfolio firms attract alternative sources of financing, help to build a distribution network, and also help to attract top-flight management. They understand the entire life cycle of a company, from getting started to building business, going public or being acquired as a venture entrepreneur. Today, VC/PE industry in India is evolving differently from the classical Silicon Valley model, the smart money is going to areas very different from what anyone had imagined. The present study highlights that IT& ITES, customer related industries and financials attracted the highest amount of investment throughout the year (2016).

**Key words:** Information Technology, venture capital, start-ups

**Introduction:**

IT has contributed immensely to the growth of the economy across the world. It has made significant contribution to the development of the computer and semi-conductor industry. Venture Capital as a concept started in 1946 by a Harvard Professor General Doriot and the role played by it over the years in shaping the destiny of Electronics industry in 50s and 60s, computers in 70s, biotech industry in 80s and the technology driven IT industry in 90s is immeasurable. List of Successful companies with Venture Capital funding appear to be Who's Who in the IT industry. Specifically, Microsoft, Intel, Apple, Novell Inc., Advanced Micro Devices, National Semiconductor, Digital Equipment Corporation, Sun Micro systems, Hewlett Packard, etc.

If we look back and see, the role models that we would like to emulate are Silicon Valley in California and Route 128 (The so called Tech highway) in Massachusetts and it is appropriate that we analyse the reasons for their unbelievable success. Among the key building blocks for economic growth in both the Massachusetts - Route 128 and Silicon Valley regions are the research and educational institutions located there. A synergistic university industry relationship has developed over a period of time in Massachusetts Institute of Technology and Harvard Universities in Route 128 and Stanford Universities in Silicon Valley. Quite a few cutting edge technologies have spawned in the backyards of these universities and revolutionized the world. But excellent as these research facilities are in these universities and research institutions, they are not sufficient to ensure the commercialisation of innovative products. Other critical factors like societal values, Govt. policies, locational factors have greatly contributed to the success of those areas. For e.g. Societal values must exist that support risk taking and also tolerate failures. The presence of successful role models not only inspires those who seek to emulate them but also sets a positive tone in the local business culture for entrepreneurial activities. These areas developed a technology Intensive enterprises, highly skilled human capital, high caliber Universities, substantial public / private R&D expenditures, specialised networks of suppliers, support sources such as law firms, consultants, strong entrepreneurial networks. The vital element that became an integral part of the system and instrumental for the success was Venture capital. Venture Capitalists funded more than 3000 technology based companies in Silicon Valley alone since 1955.

The origin of venture capital is traceable in the USA from sometime in the early 1970s, when fund managers started financing new projects of entrepreneurs with bright ideas. Around same time in 1971, the NASDAQ (national Association of Securities Dealers for Automated Quotations) stock market was set up which helped smaller companies in the US to get listings. Some of these are now multi-million dollar empires like Microsoft and Apple. Although USA is the place of origin of Venture Capital, the world's largest venture financier, 3i plc, is owned by all the UK Banks. Abroad the venture capital funds are mainly financed by private sector pension funds, insurance companies and banks, along with subscription form private individuals and industrial companies.

Venture Capital finance is made available to all enterprises in the USA, the high technology businesses have received large funds over the years. Most of the venture capital investments in the US are confined to high-technology, high-risk and rapidly changing businesses.

Let us take a look at the most well known techno-economic phenomena in the World - the Silicon Valley phenomenon. The three ingredients of its success were :

- The natural abundance of idea driven entrepreneurs
- Stanford University supported technology parks which provided resources in terms of facilities, well trained people, and technical consultancy.
- Venture Capitalists who provided not only risk capital but the business acumen and support.
- Venture Capitalists funded more than 3000 technology based

companies in Silicon Valley alone since 1955.

## LITERATURE REVIEW

A review of the studies on Venture Capital highlights the scope for Venture Capital Financing in India and the main conclusions of Venture Capital studies are summarized here:

Mason and Harrison (2000) documented that after the boom and bust of the Internet hype, since 2000, the interest of venture capital firms has shifted from seed and start-up situations to more mature investment stages, because such investments are considered safer, easier to manage. New York Times (2000) viewed that venture capitalists have sought to differentiate themselves by the quality of business services and reputational capital they bring to their portfolio companies. By grave and Hunt et al. (2005) summarized that venture capital firms typically invest in industries such as high technology and biotechnology, which tend to have a high level of ambiguity, necessitating ongoing adjustments to investment strategy. Dimov (2002) showed that venture capital partners education, functional expertise and prior experience in particular industries strongly determines whether the venture capital firm was prepared to invest in individual portfolio companies at certain development stages and in particular industries. Smith (2001) briefed that the value-added activities of venture capital providers are knowledge-based (e.g., product development assistance, business and marketing plan formulation) and network-based (e.g., investor relations, customer and distributor contact). Gompers et al. (1995) documented that in order to minimize risk, venture capitalists take an active role in the development of their portfolio firms. As part of their active role they often require board seats in the firm. Funds that place their investments in later stage investments tend to focus more on the long-term goals and less on daily routines in the firm. Another mechanism to control the risk of early stage investors is to stage the investments according to specific milestones. Barry (1994) states that VCs typically specialize by emphasizing a particular industry, such as biotechnology, or by emphasizing a particular stage of company development, such as startup companies or companies in the expansion stage. Finally, it must be noted that the institution of venture capital does more than mere financing of the start-ups. MacMillan *et al.* (1988) documented that because of their experience with numerous ventures and their extensive exposure to financial, labor and other resource markets, venture capitalists are uniquely positioned to provide valuable assistance to their portfolio companies in key aspects. Mitra, Devashis (April 2000) states that there is a clear need for venture capital to finance technological investments in such areas as information technology and software, electronics and communication, biotechnology, healthcare and medicine, chemicals, consumer products, and non-conventional energy (Verma 1997).

## NEED FOR THE STUDY

India now provides solutions for the global market place and VC/PEs are following in the same footsteps, most importantly VC/PE space is expanding to sectors beyond technology. With fundamental economic growth spanning across sectors in India, segments that escaped the scrutiny of VC/PEs during the

tech boom have begun attracting attention. The major focused areas include Information Technology, media, healthcare, education, infra, retail and food services. The modern VC/PE ecosystem is a mix of IT and non-technology, catering to domestic, global solutions demand.

However, the success of any venture capital fund would depend on the type of businesses it chooses, selection of entrepreneur, due diligence process, structuring the deal and the legal framework within which it works. Therefore, there is a need to study the interest and trends of VC/PE firms' for their investments. The present study is expected to help prospective entrepreneurs, academia and others in knowing the trends of Indian IT industry.

## OBJECTIVE OF THE STUDY

The principal objective of the study is to trace the progress of IT companies growth thru venture capital. The study specifically looks Investment in IT & ITES thru Venture Capital Funds.

## RESEARCH METHODOLOGY

The study has been carried out with regard to the various IT companies funded thru Venture Capital Funds in India. With respect to analysis of investment in IT Companies and investment by industry has been done by compiling different published data.

## SOURCE OF DATA

The study makes use of both primary and secondary data. The primary source is predominantly important due to the nature of topic, i.e. IT companies funding thru Venture Capital and its trends and my interaction with various experienced people in the industry and the secondary source is published data on venture capital.

## RESULTS AND DISCUSSION

Economic liberalization of India has brought new financial products and services to nurture and support the growth of the industrial sector. In such direction venture capital financing has come to assure significantly the development of entrepreneurship and exploit technological potential of India. The U.S. has the most developed venture capital market in the world with a high level of deal processing expertise. In contrast, the Indian venture capital market emerged in the late 1980s following a series of measures to establish government sponsored risk capital corporations and capital gains tax concessions for venture capital investments. The venture capital industry in India has subsequently witnessed increased activity with a rise in the number as well as the pool of funds for investment. However, VC/PE investments in India declined significantly in the year 2016 both in terms of number of deals as well as by amount. Further, trends in deal value suggest that investors have started being more selective (focused on companies with clear business models and greater profitability potential) in their investments and the decline is characterized by low fund raising, moderate exits and a declining deal market which has been across all investor types, though angel/seed funds shown their presence. **However, the IT sector attracted the biggest share of VC/PE money,** BFSI and Healthcare presents an attractive investment opportunity for Indian firms. **(See Table 1)**

**Table 1 VC/PE sector focus in India - Quarter2 of 2016-17**

| Sectors | Deals | (%) | Amt ( USD million) | (%) |
|---|---|---|---|---|
| IT & ITES | 78 | 54.2% | 1,173 | 27.8% |
| BFSI | 22 | 15.3% | 1,852 | 43.9% |
| Healthcare & Life Sciences | 15 | 10.4% | 254 | 6.0% |
| Manufacturing | 4 | 2.8% | 88 | 2.1% |
| Food & Beverages | 4 | 2.8% | 17 | 0.4% |
| Shipping & Logistics | 3 | 2.1% | 132 | 3.1% |
| Agri-business | 2 | 1.4% | 42 | 1.0% |
| Others | 16 | 11.1% | 660 | 15.6% |
| Total | 144 | 100% | 4,218 | 100% |

(Source: Venture Intelligence, November 2016)

Every year, some sectors catch the fancy of venture capitalists. The hot areas for VC/PE investments generally include IT&ITES, Healthcare & Life Sciences, Financial, Education, Renewable Energy (Cleantech) and Consumer related. The trigger point could be that these sectors have reached an inflection point or that some feisty entrepreneurs have demonstrated scalable and promising business models. In the year 2016 IT/ITES continued to rule for VC/PE investments and sectors like consumer discretionary, healthcare and financials were significant contributors. However, the decline across all sectors remains secular. A combination of these factors typically strengthens the investment thesis for venture capital investors. As may be seen from the table 1 i.e. Quarter 2 of 2016-17, the highest number of investments happened in the IT/ITES sector (78) with 54.2%, followed by BFSI (22) with 15.3% and healthcare & life Sciences Sector (15) with 10.4% of total share. However, it also should be noted that BFSI sector remains high in the amount of investments (43.9%).

Venture Capital Investments IN Q3 FY 2016-17

Private Equity and Venture Capital firms reported investments of about USD 4,381 M across 184 deals in Q3 FY 2016-17. The total amount invested in Q3 FY 2016-17 is 16% up as compared to the same quarter in the previous year (Q3 FY 2015-16) and 4% up compared to the previous quarter (Q2 FY 2016-17).


Figure 1: PE/VC investments in India by volume and value

Source: Venture Intelligence, February 2017


Major Focus on Cloud and Analytics

**Incubators/ Accelerators³**

140+

Up by 40% YoY

Rise of Incubators/ Accelerators

**# of M&As³**

80+

Up by ~23% YoY

Start-ups acquiring Start-ups for Inorganic Growth

**Mortality Rate**

18-22%

(overall)

B2B: 12-16%
B2C: 20-25%

B2B Start-ups More Likely to Survive

*Established, registered product technology start-ups only Notes: 1. Extrapolated based on data for ~1750 start-ups recorded till Aug 2016; 2. Extrapolated based on data recorded till Q2-2016 3 Extrapolated based on data recorded till Aug 2016, 4. Mortality rate spread across 5 years; Calculated based on tech start-ups founded from 2011 to 2015 ; Source: Zinnov Start-up Database; PP – Percentage Points

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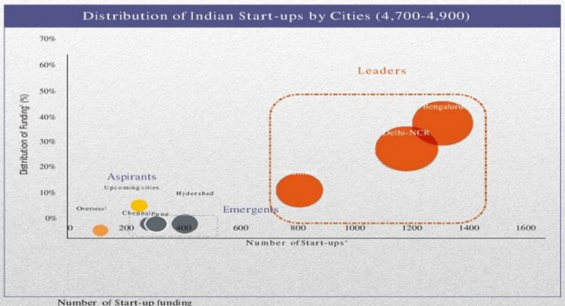
## Start-up Geographical Clusters

Bengaluru, Hyderabad, Chennai, Mumbai & Pune dominate with ~70% of tech start-up's; Next "Hot" sectors - FinTech, EduTech, 3D Printing, HealthTech, IoT, Artificial Intelligence (AI), Machine Learning, Cyber Security




**Harbor ~70% of the total start-ups**

- Financial Institutions (RBI), Stock Exchange (NSE,BSE)
- MNC' start-up headquarters

**Harbor ~20% of the total start-ups**

- Home to many IT firms, engineering, medical & management institutes like IIT-H, ISB, AFMC
- Leveraging the advantage of available talent

**Harbor 8% of the total start-ups**

Although limited corporate/industry support, upcoming cities like Kochi, Kolkata, Jaipur etc. the advantage of low operational cost, cheaper workforce, along with the support from Central

Notes: 1. Upcoming cities (Kochi, Kolkata, Jaipur, Chandigarh, Indore, Bhopal, & Kanpur, etc.), 2. Overseas start-ups (USA, Canada, Singapore, Germany, etc.) include the ones founded by Indians and catering to the India market, 3. Presented data is based on funding received by start-ups in till Q2- 2016, 4. Estimated based on a sample of 1750+ companies formed from 2011-2016

Sources: Zinnov Research & Analysis, Yourstory, CrunchBase, Angellist, Dealcurry

## Start-up Funding Overview

Amidst subdued funding, a 6-10% YoY growth in the number of start-ups funded

### Total Funding in Start-ups[1]

USD 4.9 Bn → -20% to 30% → USD 3.8 Bn–4 Bn

2015 → 2016(E)

Investors & Founders cautious; spending judiciously with focus on profitability

### Number of Start-ups Funded

600 → ~8% → 650

2015 → 2016(E)

Proportion of small ticket sized B2B funding increased as compared to B2C

### Active Investor

| | |
|---|---|
| 350+ (up by 20% YoY) # of Active Angel Investors (2016*) | 180+ (up by 15% YoY) # of Active VCs (2016*) |
| 25K-30K Avg. amount per Angel (in USD) | 4-5 Mn Avg. amount per VC (in US |

### KEY TAKEAWAYS

**Number of deals up, whereas ticket size reduced by 20-25%**

- Indicative of the risk diversification appetite of investors
- Average ticket size reduced from USD 8 Mn to USD 6 Mn in 2016

**More interest around seed investments**

- Accel Partners, Reliance Jio, Kalaari Capital, Blume Ventures etc. raised ~USD 2 Bn corpus for deployment in seed and early-stage start-ups in 2016-17
- Investors are trying to mitigate risks by investing smaller amounts in multiple companies

**B2B funding growth outpacing that of B2C**

- B2B funding growing at 18-22%, whereas B2C witnessing a decline of 25-30%
- Average ticket size for B2B (~USD 4 Mn) remained unchanged; however, B2C (~USD 7 Mn) reduced by ~30%

**Fin-tech and Edu-tech Gaining Traction**

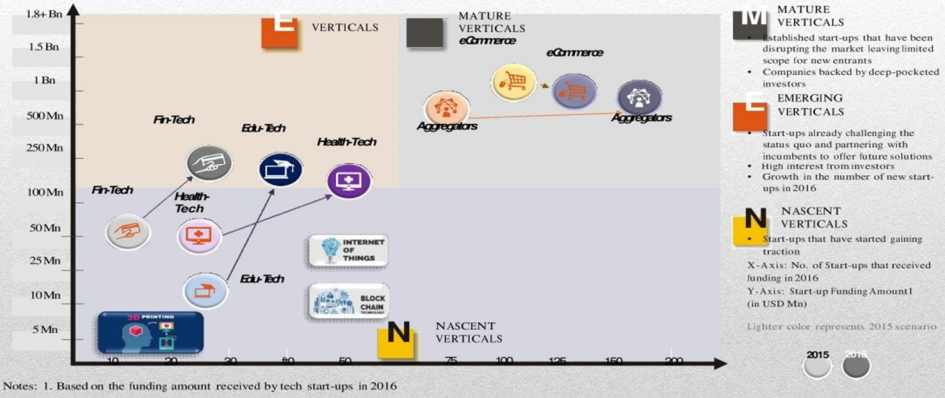
- 70% of Fin-tech funding in B2B start-ups, highest across all verticals -majorly driven by financial lending & online payment start-ups
- Edu-tech start-ups to raise USD 170 Mn+ funding, up by 3X from 201

Notes: 1. Estimates based on average deal size and number of deals (extrapolated based on number of deals in first two quarters). Deals worth USD 2.01 Bn already closed by end of Q2-2016. 2. Extrapolated based on data recorded till Aug 2016. 3. Based on multiple rounds of funding in start-ups funded in H1-2016

Sources: Trak.in, YourStory, VCCircle, Zinnov Analysis

## Sector Trends – 2016 over 2015

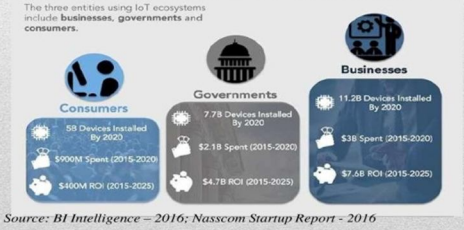
Fin-Tech and Edu-Tech, racing ahead with the promise of cashless economy & bitcoin (blockchain) technology for banking efficiency and providing quality online education to semi-urban & rural markets

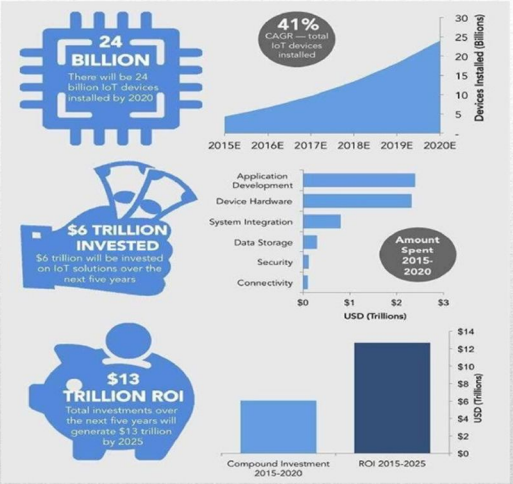



Notes: 1. Based on the funding amount received by tech start-ups in 2016

## Internet of Things (IoT)

The Internet of Things (IoT) market in India is expected to grow up to $15 billion by 2020 from $5.6 billion this year, driven by adoption across sectors like **manufacturing, automotive, transportation and logistics**.
Out of 150+ IOT startups 60% have emerged during the last three years.
Currently Healthcare and Manufacturing are the two verticals using IOT.



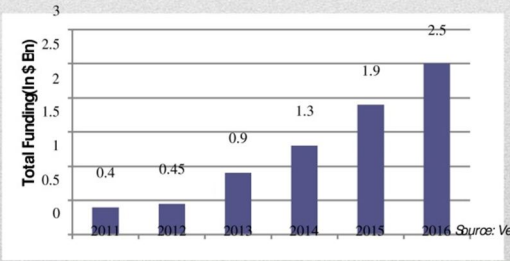

*Source: BI Intelligence – 2016; Nasscom Startup Report - 2016*

## Artificial Intelligence

- Overall Artificial Intelligence VC funding grew at a CAGR of 42% from 2011-2016, and 2016 is on pace to be the highest funding year ever.
- Machine learning categories account for 44% of all venture funding and 35% of total start-up companies
- There is a healthy cycle of start-up funding in recent years with both older and younger start-ups receiving funding
- There has been 61 funding events in the past 90 days providing $ 842 million in capital

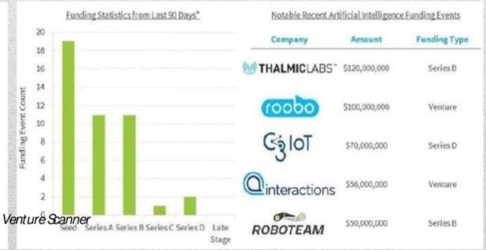
Y-O-Y size of Funding round details of AI Companies


AI Companies past 6 years total funding details




Source: Venture Scanner

Recent Artificial Intelligence funding events




## Mobile Tech - India

Mobile Network Penetration in India

| Type of Cellphone | No. of Users in India |
|---|---|
| Regular Feature Cellphones | 350 Million |
| Smart Phones | 250 Million |
| Without Cellphone | 350 Million |

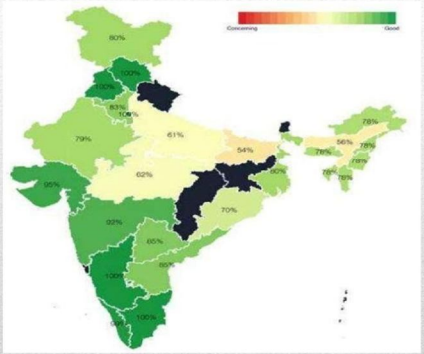
*Source: Economic Survey of India 2016-17*

Internet Users in India in 2015 – 350 Million

**Projections – 2020**

- 730 Million Internet Users in India.
- 75% of new Internet user growth from rural India.
- 70% of e-Commerce transactions via Mobile Phones.
- 75% of new Internet users to consume data in local languages.
- India to remain the fastest growing Internet market.

*Source: Nasscom – Akamai Report*




*Source: Economic Survey of India 2015-16*

## CONCLUSION

The study highlights that VC/PE firms are becoming more restrictive about the industries in which they are willing to invest and firms are embracing market opportunity in a wide variety of sectors beyond IT&ITES, however, IT/ITES continued to rule for VC/PE investments in the current year. The trigger point could be that the other sectors have reached an inflection point or that few potential entrepreneurs have demonstrated scalable and promising business models.

VC/PE investment in India declined significantly in the year 2016 both in terms of number of deals as well as by amount invested comparatively to the previous year and the turn down in investment can be attributed to the declining interest of investors in online and e-commerce business models. Further, customer discretionary industries and financials attracted the highest amount of investment throughout the year and sectors like real estate, and infrastructure showed encouraging signs of deal activity for VC/PE firms. Finally, it can be said that the investment environment in India is becoming stable and VC & PE investors are looking forward for clearer business models from potential entrepreneurs.

## SCOPE FOR FURTHER STUDIES

The present study focused on IT companies funding thru VC and its trends. Future research could be on studying the detailed performance of top IT companies.

## LIMITATIONS

Since the study is done based on IT Companies funding thru Venture Capital & its trends, the conclusion drawn cannot be generalised on the whole. The study has its own limitations due to the time factor. Inspite of the limitations, I hope that this project will be useful to our colleagues.

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