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INDIA INC: THE WORLD'S FASTEST GROWING STARTUP ECOSYSTEM

BREAKING THE IT BARRIER: NON IT/E-COMMERCE STARTUPS

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ABSTRACT

India is at the cusp of a startup revolution today. It is the third largest startup ecosystem in the world and is home to more than 4200 start ups which raised more than $3.5 billion as investments in 2015. According to NASSCOM report titled, "Startup India – Momentous Rise of the Indian Startup Ecosystem", India has the youngest startup ecosystem in the world which is expected to contribute more than 3 lakh jobs to the Indian economy by 2020.

Keywods:- *IT barrier, E-commerce, Ecosystem etc.*

I. INTRODUCTION

India is at the cusp of a startup revolution today. It is the third largest startup ecosystem in the world and is home to more than 4200 start ups which raised more than $3.5 billion as investments in 2015. According to NASSCOM report titled, "Startup India – Momentous Rise of the Indian Startup Ecosystem", India has the youngest startup ecosystem in the world which is expected to contribute more than 3 lakh jobs to the Indian economy by 2020. The impact created by these start ups and their immense potential has also caught the attention of the Government. Prime Minister Narendra Modi launched "Start Up India, Stand Up India" initiative and has come up with initiatives like Tax Holiday for three years to encourage the growth of start ups. Indian startup ecosystem is largely dominated by tech based start ups primarily due to low initial costs and easy scalability because of world wide web which enables the new-age entrepreneurs to access a large audience with much ease. The huge domestic market of India coupled with the rapidly growing percolation of internet and smartphones in the Indian Society has fuelled the rapid growth of these start ups.

The limelight seldom falls on non-tech start-ups which are making huge social impact and are quite successful in their motives. Their focus ranges from improving the education inequality, healthcare, social awareness to clean energy. Most of these require huge capital investments and are not able to scale at a pace comparable to their peers in technology domain and hence investors are reluctant to put big bets on these start ups. However, non tech start up have their own success stories and have been receiving incremental focus lately. We delve into some of them and understand the past, present and the future of largely uncelebrated heroes of the startup ecosystem of India.

II. NON TECH STARTUPS: GROWING SLOWLY BUT STEADILY

The start up wave is believed to have started in India in 2005-06. During the initial phase, most of the Venture Capitalists in India adopted a hybrid investment strategy. They put capital equally in tech and no-tech domains. For instance, out of the total $1.1 billion invested in startups in 2011, $562 million was in non-tech start ups. This was followed by a phase of rapid scale growth of technology based start ups made them overshadow their non tech peers. The investors showed more willingness in tech based start ups and the share of total investment going into them increased. However, since 2013, there has been a renewed interest in non tech small businesses which is supplemented by the increase in funding available to these start ups.

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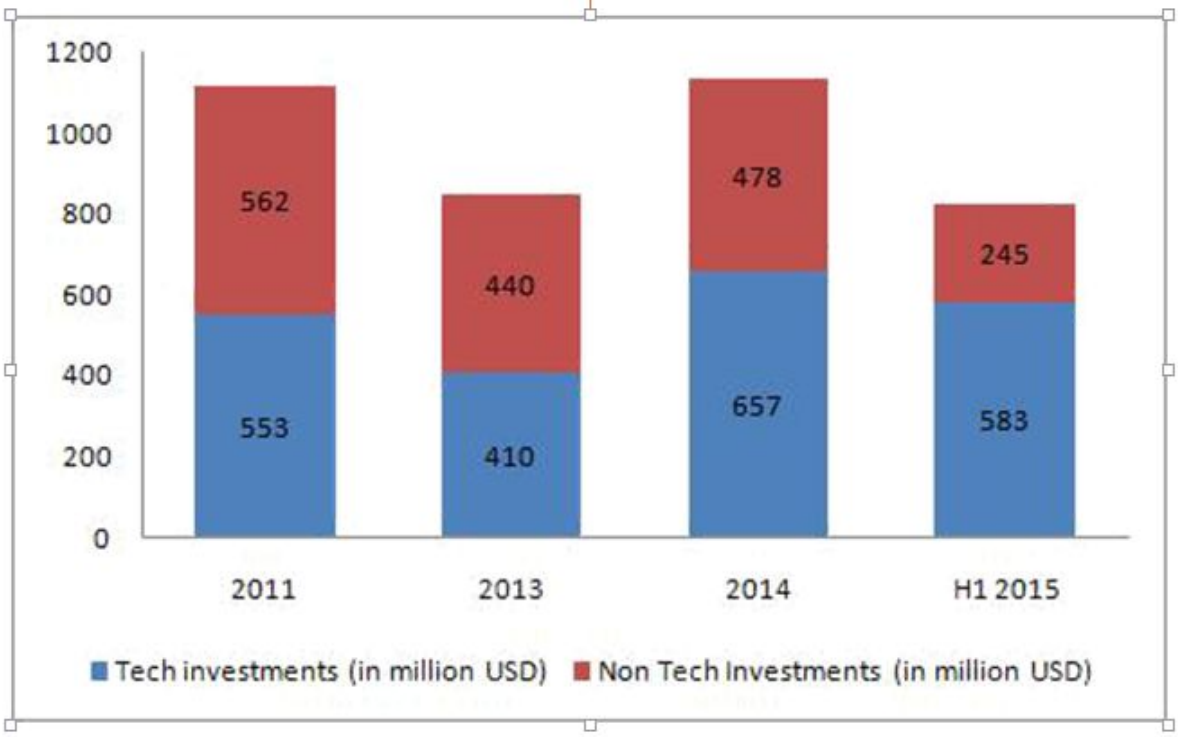

III. LEADING NON TECH START UPS

From agriculture to healthcare, startups have emerged in various critical facets of the Indian economy. Start ups like Hector Beverages have introduced revolutionary products like Paper Boat and have taken the soft drinks industry by a storm. Chaayos, another leading beverage chain has recently secured investment from Tiger Global and Bhavesh Aggarwal of Ola signalling the paradigm shift in the startup industry. Some other major start ups categorised by their industry have been analyzed.

Clean energy, the way ahead

Metropolitan cities in India are now facing a major wrath of pollution due to use of relatively unclean sources of energy. We are seeing dangerous pollution levels, as a result in many parts of these cities. Hence, start-ups delving into cleaner energy have a lot to contribute to this cause. Let us understand some of the startups in this field and how their journey has been.

Fourth Partner Energy, founded in 2010, a solar power focussed start-up based out of Hyderabad, recently could raise $2M. The venture aims at reducing power costs to its industrial clients through rooftop solar projects. Rays Power System, founded by Rahul Gupta in 2011, is already seeing great profits and is clocking Rs. 135 million PAT, in a startup environment where many are yet to see profits.

Mera Gao Power builds, a startup based out of Uttar Pradesh, operates low cost micro grids in Uttar Pradesh and has been serving off-grid villages with dependable lighting services. They have been able to raise funds from various investors like Engie, Teri, ICCO, SunFounder, etc.

We understand that a lot of traction is being seen in this sector and decent amount of investment is observed.

Bio-Tech, their success, journey and struggles

Biotechnology is an another important sector for India which needs to see a lot of improvements. Cheap equipments not limited for medical purposes but also for agriculture produced for masses is the need of the hour. In fact, India has largely been cheaper in medical facilities and hence has seen decent medical tourism.According to 2015 figures, India saw around 3.2 million medical tourists with industry

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estimated at $2billion, and the 30% y-o-y growth predicted.

According to a report by Economic Times, India expects to have around 1500-2000 biotech start-ups in the next 2-3 years which is a large improvement over the existing 500. These startups work from a varied field such as bio-pharma(which includes diagnostics and therapeutics, agricultural(like bio fertilizers, hybrid seeds), bioinformatics, drug development, etc.

Crystalin Research, based out of Hyderabad, is India's first scientific start up which focusses exclusively on R&D in solid -state crystalline forms for pharma industry. Founded by Dr. Nangia, a professor at Hyderabad University, it resulted due to the initiative of "Knowledge Equity" by Indian Government in 2009. The concept of Knowledge Equity enables scientists to turn their research or inventions or ideas into their own profitable venture. Dr. Nangia observes, that he found it difficult to convince VCs to invest in his venture since it involved a lot of R&D costs in the first two years and generated no revenues during that period. Many VCs largely focus on rapid growth in terms of user base or revenues, which may not be possible with such intensive R&D based start-ups. It is a rough ride while taking a private investment perspective, but he has found decent support from the government.

Another start-up based out of New Delhi, is making waves in the oncology department, which is developing an anticancer supramolecular therapeutics for the global market. Founded by Dr Shiladitya Sengupta, a Harvard Medical School assistant professor, faced initial repressions from its peers to venture into it. However, by its sheer determination, he went ahead and launched Invictus Oncology in 2012. Dr. Sengupta, observes that Government SBIRI scheme allows a maximum of Rs. 50 lakhs as matching grants and also it is approved after many red tapes and in his case, it took around 1.5 years. Also, he says that burn rate due to the R&D cost is around 15-20 lakhs per month. Hence, the amount is not sufficient even to fund 3 months of R&D. Taking high interest debt from other sources deters many entrepreneurs. He, however, the situation is evolving and he has been able to sustain himself and has seen interest from scientists from reputed universities like Harvard, NCI, UCSB, etc.

By 2017, the biotech industry is expected to rise to $11.5 billion, a near 3-fold jump from 2012 figures and hence we see a lot of future potential in this sector.

The Social Entrepreneurs

With a huge population of more than 1.2 billion people, India has struggled to provide its masses with adequate access to basic facilities such as healthcare and education.

This need was sensed by many entrepreneurs who decided to foray into these fields. Large corporates also come forward to support NGOs and start ups in these areas as a part of their CSR activities. For instance, Mentor Together is a start up aimed at providing mentorship and education to destitute girls and youth from low income families. Over a span of just three years, they have been able to secure support from organizations like IBM, Starbucks and IIMB. Another leader in the field of education is TeachForIndia. It was set up in 2008 and has already expanded into a widespread mass movement with more than 1200 fellows and 1100 alumni towards eliminating educational inequality.

Healthcare industry in India is expected to grow to $280 billion by 2020. With a doctor to patient ratio of more than 1:11000, India is in need of rapid advancements in this field. Quality healthcare are accessible only to people living in Tier 1 or 2 cities and is often costly. Tech based start ups such as Practo, Potea and Lybrate have tried to fill this gap by providing access to quality healthcare at the ease of home. To bring in cost reduction, non tech startups like Achira Labs, a Bangalore based medical diagnostics startup builds platforms based on microfluidics to make medical tests more accurate and affordable. Another example, Innoflaps, is a New Delhi-based startup created by a team of speech therapy professionals and engineers that specialize in the field of speech products. It offers home-based therapy devices for speech impaired people.

The healthcare and education sector are among the least funded sectors as displayed in the graph below:

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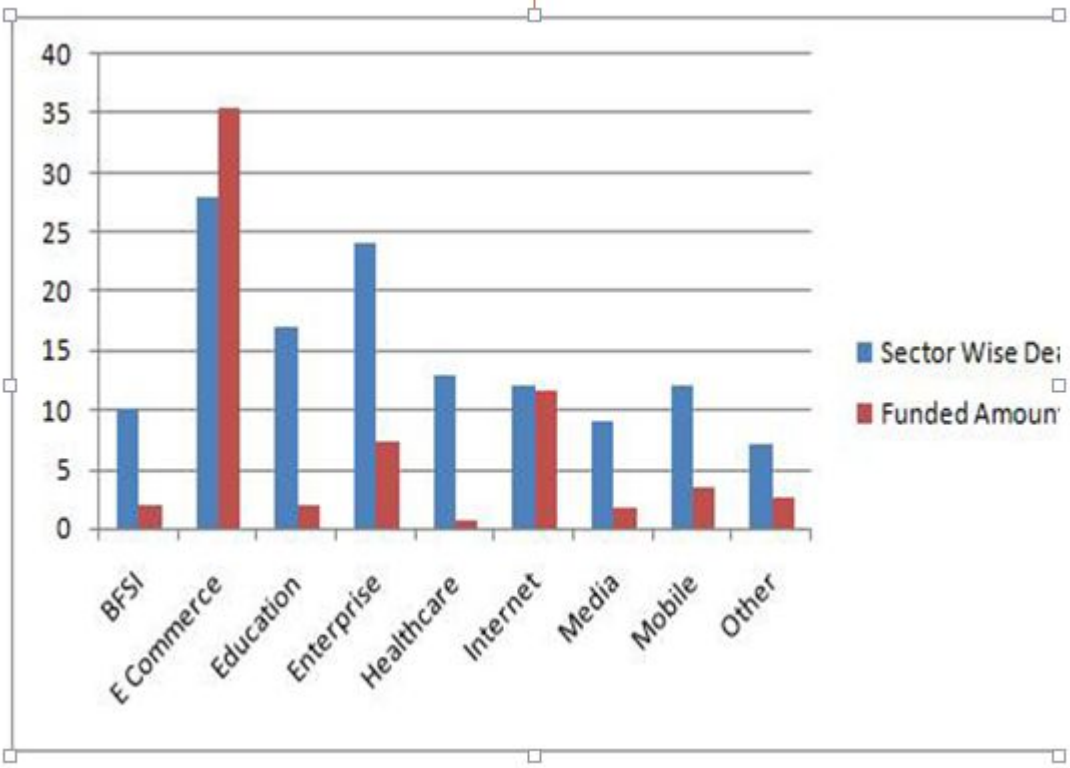

IV. CONCLUSION

The VCs find themselves constrained in funding a non-tech startups for variety of reasons, let's take for an example, a manufacturing sector start-up which would require large amount of funds in the initial phase and would able to churn out profits only after certain period. Additionally, India ranks poorly on the ease of doing business area and the red-tapes are high. The non-tech start-ups which require large number of regulatory permissions such as environment clearance, permission from local resident in case of setup of a new factory, etc.; will face large problems in India. In some cases, considering all these, it may take 5-10 years or even more to get factory or other infrastructure to be ready. The same problem is not largely faced by IT start-ups, because regulatory requirements are largely bare minimum and infrastructure required to setup an IT startup can be as simple as a laptop with an internet connection. VCs want to enter businesses early and may be want to exit early which is many a times not possible with non-IT start-up and their funds is stuck for a large period of time. Additionally, their investment model allows them to take 70-80% failure rate which would be compensated with supernormal profits from the rest successful 20-30% and hence they expect quick turnaround of their capital. Hence, they expect to invest relatively small amounts in large number of firms rather than large amounts in very few amount of firms.

However, we understand that with advent of smart cities in India, non IT startups from infrastructure and manufacturing sector have a large role to play. We have startups who are working on use of steel slag to improve quality of roads at affordable rates, use of fly ash to get better brick quality, etc. Since it is difficult for private players to pump money in non tech startups where the investment recovery may not be as fast as tech peers, the government needs to step in to encourage them. Non Tech start ups can be expected to bring in structural changes to the economy which will go a long way in ensuring the consistent growth of India. Technology based start ups are critical but, India needs to ensure that their non tech counterparts do not lose their sheen.