

SWEAT BEHIND

THE

SUCCESS

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Reema Mittal



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Sweat Behind the Success

Reema Mittal

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*To those who have the courage
to take the plunge and pursue their dreams*

Author's Note

I was not sure if I would ever succeed in writing this book. It was my first big independent writing project with no prior experience. But as the golden rule of entrepreneurship says “*if you have the right amount of passion and will to succeed, then put your doubts in a closet, take the plunge and the rest will follow,*” I did just that. Finally, the result is here.

The start-up landscape is booming with India being ranked the third largest start-up ecosystem globally. There are a total of 4750+ start-ups bringing in \$5 Billion funding. In the current scenario, academic incubators are expected to play a pivotal role in propelling young student entrepreneurs and translating novel research into viable technology products and services. This book narrates the growth story of one such technology incubator anchored to the Indian Institute of Technology Kanpur, which has succeeded in building a massive, vibrant and sustainable entrepreneurial ecosystem at the institute. Intertwined with the incubator story are the personal journeys of technopreneurs who dared to follow their hearts and carved a niche for themselves.

‘*Sweat Behind the Success*’ holds a special significance for me, not only because it is my first book as an independent writer but also because writing it helped me shed some of my own inhibitions and doubts that had somewhere crept in owing to my chequered career path. I sincerely hope that it may do the same for you, my readers, who might be in need of a little push and a little belief in themselves before pursuing their true calling.

Reema Mittal

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The Incubator Story

Setting up and running an incubator anchored to an academic institution of higher technical education is equivalent to the herculean task of running a start-up. A task laced with insurmountable challenges at every turn which only an indefatigable spirit can survive through and emerge a winner. The incubator is constantly learning, constantly evolving and constantly redefining success each day. The SIDBI Innovation and Incubation Centre at the Indian Institute of Technology Kanpur has a similar story to share. A story that may find resonance with 140+ incubators and accelerators currently operating across India.

SIDBI Innovation and Incubation Centre

The year 2001 marked the entry of IIT Kanpur into the startup world as a technology incubator. The Department of Science and Technology (DST), Government of India, had just announced the setting up of academic incubators across the country to give a fillip to the then emerging entrepreneurial culture amongst Indian youth. The entire effort was intended towards building a strong sustainable ecosystem and enthusing young minds with entrepreneurial zeal who would then initiate technology-based and knowledge-driven enterprises. Being a home to the most brilliant minds from across the globe and carrying out cutting edge research and innovations in science and technology, IIT Kanpur seemed to be a perfect launchpad for viable out-of-the-box ideas. While the institute was still envisaging an action plan, an opportunity came knocking at its doors with the Small Industries Development Bank of India (SIDBI), Lucknow, inviting a proposal for setting up an innovation centre at the institute. Thus, came into existence the SIDBI Innovation and Incubation Centre (SIIC). From there onwards, began the institute's uphill journey towards creating a massive and vibrant ecosystem that continues to grow and create more opportunities for innovators and entrepreneurs. So far, SIIC has mentored 67 startups of which 37 have already graduated. Some of these companies have undergone successful mergers and acquisitions as well. The incubator has also been instrumental in filing more than 350 patents. Eighty of these patents have been successfully commercialized generating revenues worth over ₹ 3 crores. The growth trajectory of the ecosystem, however, has been anything but smooth. It had to traverse a rough path before gaining a strong foothold as a national award-winning technology incubator.

The Start-up Phase

Started in 2001 in collaboration with SIDBI, SIIC was the first significant step towards creating enterprises in technology domains, accelerating commercialisation of research and development output, and facilitating transfer of technology. Though it was primarily focussed on propelling students and faculty to patent and incubate their innovative ideas, it laid its doors open to the outside start-up world as well welcoming every entrepreneur from across the globe. With an initial incubation capacity of 12 ventures, which now has increased to 32, SIIC began its operations in 2004 setting on the steep learning and adaptation process.

As the incubator began to engage with the start-ups, it realised that offering an incubation space alone would not suffice. It needed to leverage the strengths of the host institution, which in this case were the state-of-the-art laboratories and experimental spaces, further augmented by a large reservoir of intellectual resources available at the institute. Providing the incubates an access to these resources would not only have decreased the time and finances needed to commercialize their ideas but would also have enhanced their chances of success. Therefore, SIIC meticulously designed an exhaustive policy framework ensuring interests of both, the institute and the incubated companies. It took countless stormy sessions and meetings with all the stakeholders before the final policy was frozen.

Under the incubation policy framework, the incubated companies can use the institute's resources by nominating 3% of their company's shares in its favour and 1% in favour of a mentor who can either be a faculty from the institute or an industry person listed in the SIIC database. They can also avail a common pool of soft and hard infrastructure including the on-campus residential accommodation, IITK intellectual property, seed loans and other amenities, in return of a small amount of service charge and equity shares. Presently, SIIC is the only incubator in the country which offers fully furnished residential units to the start-up founders.

After putting the physical infrastructure in place, SIIC started strengthening its network of funding agencies, venture capitalists and angel investors. The initial offerings were limited but as the years passed by the funding options became bigger and better. Since most of the start-ups require financial aid at some juncture, an incubator must act as a bridge between startups and prospective funders. Incubates at IITK can avail funds from DIT (Department of Information & Technology); MSME (Ministry of Micro, Small and Medium Enterprises); PRISM (Promoting

Innovations in Individuals, Start-ups and MSMEs); seed funds from government schemes operated by TDB, BIRAC, SIDBI-TIFAC, SIDBI Risk Capital/Venture fund; corporates, venture capitalists and angel investors.

Till now, over 10 startups have received risk capital and Stage II and III venture funding of the tunes of ₹ 30 crores; and 20+ startups have availed seed funds (in the form of soft loan and/or equity options). The IIT Kanpur's equity in top 10 start-ups is appraised around ₹ 3 crores. Recently, SIIC has also initiated its own modest internal seed fund for disbursement.

Propelling Student Entrepreneurs

The most challenging task in creating this existing ecosystem was to enthuse the young and diverse student community of the institute with an entrepreneurial zeal, to propel them to think outside the box, ideate and innovate. Towards this end, SIIC floated an idea that the student community readily conceptualized into 'Megabucks', a three-day international business and entrepreneurial festival held annually. Started in 2001, the event not only brought together a premier gathering of entrepreneurs, venture capitalists, technocrats, incubation hubs and the academic fraternity under one roof but also exposed students to the various facets of setting up and running businesses successfully through a series of business competitions. Soon, an entrepreneurial fervor gripped the student community thereby making entrepreneurship a buzzword in the campus. More than 12 companies were formed and officially registered in a short span. A few of these have emerged as big players in their respective domains such as Transversal e Networks. In 2008, the event was transformed into a more technical event that continues to be held every year under the banner of Techkriti, the annual tech-fest of IIT Kanpur. These events set the stage for the next phase.

The increasing demands from students for year-round entrepreneurial activities led to the formulation of Entrepreneurship-cell. Set up in 2009 under the aegis of SIIC, the E-cell was hailed as a start-up with its own objectives, action-plans and challenges. It conceptualized several events and programs geared towards mobilising the student community.

E-Summit – It is an annual flagship event that attracts entrepreneurial enthusiasts from across the country. Many of the participants have turned into CEOs and founders of viable businesses such as Help Us Green,

a Kanpur based green venture that produces handmade products from flower wastes; Buizhome, an online platform that connects you to local businesses; FoodMonk, an online food ordering platform; and several others.

Start-up Internship Program – This program offers students with a rare opportunity of working with start-ups as interns. The number of start-ups registered with SIP has increased from a mere 9 to 100 at present.

Campus Entrepreneurs Group – This forum brings together the entrepreneurially minded people to initiate healthy exchange of ideas and experiences in this domain.

Miscellaneous – TEDx, ESSENCE, boot camps, workshops and seminars, E-Factor, etc.

So far, the E-cell has supported a total of 30+ start-ups from within and outside the institute, with 15+ student start-ups being currently active in the campus. To accelerate this built-up momentum further, SIIC has proposed several new initiatives.

- Introductory 101 course on Entrepreneurship & Innovation.
- Introducing a Master's program in Entrepreneurship & Innovation.
- Deferred Placement Program allowing students to defer their placements and incubate their ideas instead.
- Graduate Entrepreneur Fellowship Program (GEF) awarding a fresh graduate student who chooses to incubate his company at SIIC with a fellowship during the period of incubation.

The Scale-up Phase

As the incubator started to expand its capacity, a need was forecasted for a standalone technology-focussed advanced R&D infrastructure that would enable technopreneurs to experiment and develop prototypes. Over the years, SIIC has succeeded in building such an infrastructure spread over 10,000 square meters fulfilling the software as well as the hardware/manufacturing needs of the incubates and the students. The facility is popularly referred to as the Imagineering Laboratory that comprises of:

Tinkering Lab: As the name implies, it is a tinkering space with state-of-the-art facilities which allows innovators from across the country to convert their ideas into new products and services specifically in the areas of mechanical/ electrical/ electronic elements fabrication processes.

Established in 2012, the model has gained acceptance and appreciation from the DST and is being promoted across the country. The facilities available at the laboratory include basic lathe and milling machines, 3-D scanner, bench drilling machines, vacuum plastic forming machine, injection moulding machine, sheet metal cutting and bending machine, shearing, small grinders, buffing tools among others.

Motwani Ideation Accelerator (MIA): It is a soft facility in the domain of embedded systems, platforms, algorithms and IT related ideas. It has been set up to push forward the innovative ideas primarily sourced from B.Tech. and M.Tech. projects and Ph.D. dissertations. It is also geared towards providing wider exposure to students through internships at prominent accelerators in India like Indian Angel Network Incubator, Microsoft Accelerator, Khosla Labs, The Hatch, Villgro, The Startup Village, etc.

4i Lab: The 4 I's stand for Innovation, Integration, Incubation and Implementation. Started in 2003 to provide futuristic manufacturing solutions to the institute and the industry, the lab works closely with students and research fellows providing them the high-end manufacturing support.

The *Bio-Incubator* established under the Bio-Incubator Support Scheme (BISS) initiated by BIRAC is the latest addition to the existing facilities. Inaugurated in March 2016, it is considered as a huge fillip to emerging bio-entrepreneurs working in the areas of biologics, biopharmaceuticals, biomedical instrumentation and nano-biotechnology. So far, it has successfully incubated more than 8 companies 3 of which have already graduated.

Besides, SIIC is also setting up two Incubation Accelerators. While the accelerator in the NCR (National Capital Region) region is aimed at facilitating business development and funding, a small office facility for accelerator services is planned at the Wall Street, New York, USA.

The Growth Phase

Through sustained and relentless efforts in a focussed direction, SIIC has succeeded in creating a sustainable innovation and incubation ecosystem at IIT Kanpur. The ecosystem has enabled innovators to convert their ideas into viable high-end technology products and set up successful ventures. SIIC, with the Innovation Council guiding its operations, stands at the

epicentre of this ecosystem. The thriving ecosystem encompasses: (1) Nine incubation centres, (2) World class R&D infrastructure, (3) Facilities and services including mentor and funding support, (4) Capacity building events and networking opportunities, (5) Student-run clubs and activities, (6) Faculty support and (7) Strategic alliances.

From a single incubation centre at the time of its origin, SIIC has grown into nine distinct centres representing the various arms of Government. These include:

1. SIDBI Innovation and Incubation Center (for SIDBI)
2. Technology Business Incubator (for NSTEDB)
3. MSME Incubator (for MSME)
4. Technology Incubation & Development of Entrepreneurs (for DIETY)
5. Promoting Innovations in Individuals, Startups and MSMEs (for DSIR)
6. Technology Development Board
7. BIO-Incubator (for DBT)
8. MoLE Incubator (for MoSDE)
9. Social Enterprise Incubator (for DFID Invent Program)

These centres get financially supported by the initial corpus fund of IIT Kanpur, Government of Uttar Pradesh and SIDBI. It is the interest from the corpus that is utilized for day to day running of the centre. Seed funds and operational expenditures of these centres are funded by their respective agencies that is Technology Business Incubator (supported by NSTEDB), Department of Information Technology (DIT), DBT, Ministry of Small and Medium Enterprises (MSME), Department of Scientific and Industrial Research (DSIR), Ministry of Labour and Employment, now termed as Ministry of Skill Development and Entrepreneurship (MoSDE), and Social Entrepreneurship INVENT Program of the Department of International Development (Government of UK).

The efforts of SIIC towards creating an innovation ecosystem in the country have further been augmented by various organizations that have entered into strategic alliances with the incubator. These include National Entrepreneur Network (NEN), Singapore Management University (SMU), National Entrepreneurship Awards Scheme (NEAS), National Innovation Foundation (NIF), JK Centre for Technician Training (JKCTT), Villgro, IIM Ahmedabad, TiE-UP, FICCI, ISBA, SIDBI, MSME and other

supporting groups. With their support, the centre organizes workshops, skill based trainings, awareness programs, talks, group discussions, seminars and other outreach activities in institutes across the country to promote entrepreneurship. The Syndicate Bank Entrepreneurship Research and Training Centre (SBERTC) at the institute is another such centre that conducts research, teaching and training in entrepreneurship by using the prevailing ecosystem in the institute.

Success Garnered

Since its inception, the incubator has mentored 67 start-ups primarily in the areas of IT and Electronics, Biotechnology, Mechanical, Design and others. Thirty seven of these companies have successfully graduated creating their niche in the market.

In tandem with promoting entrepreneurship, SIIC has been actively involved in providing professional help to faculty and students for filing patents and copyrights. It has facilitated licensing of institute's intellectual property to start-ups and industry under specific terms and conditions as decided by the institute. So far, over 350 patents have been filed of which about 80 patents have already been successfully commercialized (worth over ₹ 3.0 crores).

A few of the star performers include:

Weather Risk Management Services: Founded in 2004, the company is credited with pioneering weather insurance in India. It has developed a wide range of products and services combining big data, analytics, smart devices and financial services. Currently, the company can address ₹ 10,000 crores market.

Curadev Pharma: Founded in 2010, the company is a small molecule drug discovery enterprise. It focuses on the creation and out-licensing of pre-IND assets and IND packages for drug development. It has already filed six patents and has been selected by London Partners as one of India's 'Emerging 20 Companies'.

E-Spin Nanotech: Founded in 2010, the company is primarily focused on research and development of high quality and cost-effective nano-fibre products and lab and industrial electro-spinning units. The company's founder Dr. Sandip Patil has been widely covered in the media and has won several national and international awards.

GT Silicon: Founded in 2012, the company works in the areas of precision foot-mounted sensors for indoor positioning and IMU-array based sensor platforms for wearable motion sensing. In a short span of time, the company has expanded its customer base serving clients in 14 countries. It has also been named the ‘Top 10 Promising Start-Ups’ in the CII Industrial Innovation Awards 2015.

Aarav Unmanned Systems: Founded in 2013, the company designs and develops cutting edge technology in the field of Unmanned Aerial Vehicles. Their drones are cost-effective, 10X faster and generate millionX richer data thus providing insightful analytics. Recently, the company has raised a huge amount of funding for its next phase of expansion.

Promorph Solutions: Founded in 2015, the company works in the education sector aimed at improving the quality of education through real-time monitoring of student/teacher performance, attendance, leave and government schemes like mid-day meals. Its product EMPOWERU has been implemented in 3485 government schools and has been awarded the ‘Innovative Idea for use of Technology and Innovation in Promoting Good Governance’ by MHRD.

PROSOC Innovators: Founded in 2015, the company is a for-profit social enterprise aimed at designing and developing innovative products and services of social importance. It has developed two products: DESKIT, a school bag that can be easily converted into a study table; PBMM, a compact, low-cost paper carry bag making machine. The idea has been successfully crowd sourced and received funding from various sources.

The Way Ahead

The future of the incubator looks very promising, brimming with hope and opportunities. It is about to start work on two of its highly ambitious projects for which funds have already been generated.

Establishing a Social Incubator

Under the INVENT (Innovative Ventures and Technologies for Development) program, IIT Kanpur has been selected as one of the incubators to be trained at incubating social ventures by way of mentoring, networks, know how, templates, etc. INVENT is an initiative of the Department for International Development (DFID), UK, with the

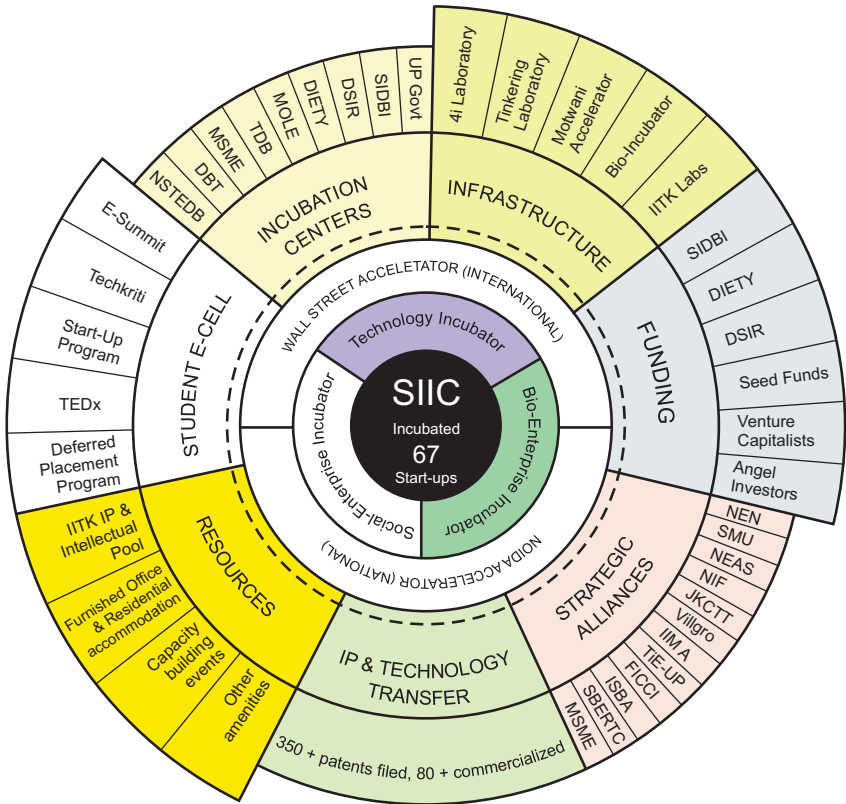
Technology Development Board (TDB) as the anchor of the program. It is intended to create a pipeline of viable social enterprises in low-income states (UP, MP, Bihar, Chhattisgarh, Jharkhand, Rajasthan, Orissa and West Bengal) of India. SIIC foresees it as an opportunity to bring the institute to the forefront of social impact incubation in the country.

Establishing an Industrial and Translational Research Park

The proposed complex is envisaged as a unique space that will primarily be used for housing industry sponsored labs and incubating technology oriented companies. It is meant to give a fillip to the existing industry ties and ignite novel research in inter-disciplinary areas that hold promise for future. A part of the complex will house central research facilities accessible to students, faculty, incubates and industrial units with tie-ups. It is intended towards creating a sustainable and affordable industrial research ecosystem within the institute by providing easy access to infrastructure, equipment and technical knowledge base to the industry and academia, thereby facilitating knowledge creation, commercially viable patents and spin-off ventures.

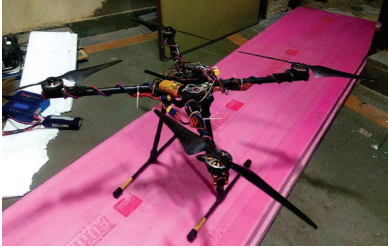
India is on the cusp of an entrepreneurship revolution. Come and be a part of this change!

(Inputs for the incubator story were received from Profs. B.V. Phani and S. Khandekar.)



The Entrepreneurial Ecosystem at IIT Kanpur

Prototypes developed at the Imagineering Laboratory



Unmanned Vehicles



Car Chassis developed at the Tinkering Lab



Digital Home UPS



Deskit, a low cost school bag convertible into a table

Imaging Engineering Laboratory



Tinkering lab with facilities including bench drilling machines, vacuum plastic forming machine among others.



Bio-Incubator established under the Bio-Incubator Support Scheme (BISS).

The Start-up Stories

The nine entrepreneurs featured here were interviewed during the period of 2014-2015.

Butool Abbas

Founder, Thinking Threads Design



Despite being an inspiration for many young women, she dislikes being categorically referred to as a ‘Woman Entrepreneur’ as she believes that a gender tag limits the growth opportunities for an entrepreneur. *“In my view, many women enter the field with the mindset of facing gender biases and it acts against them. The more you carry that impression in your mind, the more biases you feel. Even if I faced any, I do not particularly remember them as they were and still are very trivial to me,”* says the 31-year-old young, dynamic and zealous entrepreneur. Butool Abbas is the owner of four start-ups --- Thinking Threads, Thinkizm, Design Mela and OINK. The common thread that runs through all the four ventures is her passion and belief in the power of design to influence and revolutionize our lives. Recently, Butool was covered in *The Economic Times* for her achievements.

Born in 1984, in Barauni, Bihar, Butool grew up in an environment conducive to independent thinking. While her father worked as a surgeon in Indian Oil Corporation, her mother spent her days nurturing her two girls. The family travelled extensively rejoicing the different cultures across the world. Being highly creative people, with keen interest in dramatics and art, her parents encouraged their two daughters to explore the world on their own. Butool vividly remembers an incident that happened when she was in Class 5. “One day, while I was writing in my notebook, somebody told me, ‘Oh! You are a lefty’...That statement left me confused. By then, nobody had ever told me the concept of left and right. When I look back, I realise that our parents ensured to keep us away from all the preconceived notions of right and wrong.” Butool believes she learnt her very first entrepreneurial lesson at that age. Learn through exploration and find your own paths.

Butool always had it in her, the dream of running her own business. Her young innovative mind always bustled with ideas and she displayed tremendous eagerness to implement them; a trait that she continues to exhibit even today. While her first idea of putting up a children’s library did not materialise, her other idea successfully culminated into a children’s club where she, together with her best friend, performed events for other kids for a minimal entry fee of ₹ 10. “Aah! Those were fun times. We often used to put up stalls in club fetes. Once, we both got caught in the class. The teacher thought that we were cheating but in reality we were writing a plan for our children’s club. We were actually tricking people,” Butool said laughingly.

After completing her high school education, Butool joined the B.Arch. programme at MS University, Baroda, with the ambition of starting up her own firm after gaining few years of industry experience. “Though I had planned to start working immediately after graduation, I chanced upon an advertisement. It was a call for applications for the CEED exam, which I had never heard of. I performed well, scored 30th rank in the exam and went on to join the M.Des. Programme at IIT Kanpur.” The latter is a place, she believes, that empowers you with strength and courage to take risks and fulfill your dreams. It is here that her journey as an entrepreneur started.

Butool was keen to venture into the education sector and was looking for partners. As she started to know her batchmates, she became friends with Meera and Binapani and gradually was convinced that the two would be the ideal choice. The three held numerous clandestine meetings in afternoons, to evade contact with others, and finally decided to start a

research based design consultancy firm but only after gaining 2-3 years of relevant industry experience. Butool claims that her entire journey has been very instinctive. “It was February 2009 and recession was at its peak. The campus placements got hit. I sat for company interviews and managed to reach the final round of one. But contrary to what I had planned, I deliberately messed up my interview by clearly stating them my future plans of becoming an entrepreneur. I guess I could not reconcile to the idea of doing a 9 to 5 job for someone else.”

Butool’s impulsive decision paved way for her venture - ‘Thinking Threads’. It was only after screening through approximately 200 to 300 names for the company, the three founders settled for the name, which Butool had coined for her final year thesis project. Meanwhile, as they were busy in completing the formalities, they bagged their first project. “A group of passouts from IIM Calcutta had started a company and were looking for a permanent employee for a project. Through some resource, I came in touch with them and somehow managed to convince them to use our firm’s design services instead of hiring an employee,” said Butool. Eventually, they bagged the project but lacked any knowledge of running a company. They went around enquiring from different resources before submitting their first quotation of ₹ 50,000. At this point, Butool lamented about the inadequacy of the design programmes and other professional courses in India in preparing students to work as independent practitioners/consultants. And she would like to change this flaw particularly in the design field.

The first pay cheque of ₹ 10,000 came as a big respite to the bankrupt founders. They chose to survive with precisely ₹ 120 in their account rather than approaching their parents for any help.

As the trio disclosed about their company to family and friends, mixed reactions poured in. “Well, most people think that girls are not the bread winners in a family. So they should be allowed to fulfil their fancies. We did not face any resistance as such but were received with a lot of casualness. Though my parents were very supportive, my father had a few concerns. He was worried as to how the three girls would manage the company after getting married and his concerns eventually proved true,” Butool replied pensively.

On 28th July 2009, Thinking Threads Design Pvt. Ltd. was registered. It is a strategic communication design, branding and qualitative research consultancy firm. The company started its operations with a focus on tier II and tier III cities offering services in Visual Communication,

Product Design and User Interaction. IIT Kanpur was one of its early clients and still continues to be amongst its major clients. Gradually, it succeeded in building up an impressive list of clientele that includes ICRISAT (International Crops Research Institute for the Semi-Arid Tropics), Hindustan Unilever (HUL), Ministry of Human Resources and Development (MHRD), IISER Bhopal, BOC (Linde Group) and several others. In April 2013, the company won a prestigious national level competition organized by the Planning Commission of India.

Butool thinks that originality and innovation are keys to success in business. Her company's original, playful and user centric designs have helped them win over their customers. "Our focus is on simple designs with strong concepts. We strive to add value to organizations through design thinking. We have fought with our clients for their end clients. This has helped us get many repeat customers and also a few awards."

At its inception, Thinking Threads had five founders namely Butool, Meera, Binapani, Gaurav (Butool married him in February 2013) and Gyan. Today, Butool is the sole person who continues to be associated with the company. Binapani, Gyan and Meera exited the company after their marriages in 2010 and 2011, respectively. However, Gaurav continues to help Butool on several company matters particularly legal and financial.

With the exit of the founders, the company's focus suddenly shifted from growth to mere survival. Its growth trajectory got drastically hit. Butool bore the brunt of the unanticipated situation.

"I was overburdened with responsibilities. From design to marketing to salaries, everything fell on my shoulders. I had to learn every single aspect of running a business starting from understanding the debit/credit system and bookkeeping to employees' appraisals and reimbursements." For a while, frustrations took her over and she decided to quit. But then the thought of her employees forced her to rethink her decision. "I was extremely depressed but soon I realised that I was responsible for my employees. I could have fetched for myself but they were dependent on me and I could not have betrayed their trust." Therefore, Butool retained the company and worked extra hard. She literally ran from pillar to post to ensure that the salaries were given on time.

Thinking Threads remained bootstrapped till 2012 when Butool decided to take seed fund from SIDBI Incubation and Innovation Centre (SIIC). "At that time, I asked myself a question which every entrepreneur must – Should you continue wasting time running after payments or should you

focus on the growth of the company?” It is then that Butool decided to avail the seed fund of ₹ 25 lakh, which lessened her financial worries.

Butool brings in a lot of freshness to her work. Her unique creative approach towards her company has won her dedicated employees whom she proudly calls as *Growth Partners*. Her company’s work culture is free and alive. Every Saturday fun filled workshops are held where one team member teaches a skill to the rest. For instance, one of her employees who is a Kushti (wrestling) expert taught the sports to the rest of the team. This practice ensures team building, team learning and fun as well. Started at a small scale, the company today has around 15 (the number keeps varying) employees including the one who has been with the company since its inception.

By then, Butool and I had talked almost everything about her company save the yearly turnovers and profits. To this, Butool cleverly replied, “This is one question that I always try to evade. Our vision was very clear. We were new in the market with no prior industry experience. So we wanted to use the incubation time to understand how things worked. We wanted to learn and experiment in our initial phase and then expand. That is what we have done.” Butool believes that as you grow older your appetite for risks decreases. Therefore, start early, make all your mistakes in the first few years and then pick up pace.

Butool’s fiery imagination did not rest with the success of Thinking Threads. She started three more ventures, two of which are social entrepreneurial initiatives. Thinkizm was started in June 2011 with the intention of shaping thinkers and innovators out of every child. This is a movement for developing creative and critical thinking skills in individuals amongst the crowd. Currently, Thinkizm conducts Experiential Learning Programmes with school kids of varied economic backgrounds. So far, it has conducted workshops for more than 500 students across the country. It is also developing engaging and interactive low-cost educational tools to bring about behavioural changes. Butool has also managed to convince the CBSE team to introduce Design as a subject in schools. The idea has been partially implemented as it needs a few iterations and revisions. Butool’s work in this area won her a prestigious opportunity of participating in a design conference held by DDEI (Designing Design Education for India), Pune. Her research paper was received well and attracted a lot of attention. She was also selected for the International Visitor’s Leadership programme (IVLP) organized by the US embassy and visited the US for the same.

Butool likes to call herself a thinker and a design activist who wants to give the Indian design its due. The Design Mela is yet another effort in this direction. It is a Design Awareness Project to celebrate low-cost mass-consumed Indian Designs. It is an online database to create a design language of the country and also intends to be a huge ethnographic study material. Butool is keen to set up a Design Museum in India which will showcase and preserve authentic Indian designs. “Here my role is that of a curator. A lot has been done for European design but for Indian Designs there exists neither any database nor any catalogues. Indian designs have stood the test of times and are truly indigenous and low cost.” This is also a social initiative where Butool wants to connect buyers and sellers. Though she is still tinkering with the idea, she has big dreams for it. For now, she has started with an online museum, which is more like a Wikipedia of designs. In future, she would also like to hold travelling international exhibitions and set up small Indian design museums in every corner of the world.

In December 2012, Butool’s undying love for design took shape of a lifestyle store, OINK (Only Indian Kalakari). She intends to make things which are 100% India inspired. “I always wanted to do T-shirt branding but could not. Here, we focus on 1980s and 90s era. The products are complete fun like Suhagrat ka Glass, Roop ki Rani Choron ka Raja mugs and T-shirts with proverbs like akal badi ya bhains. It is complete paisa vasool (value for money) and is meant for people who love a masaledaar (spicy) life. In Hyderabad comic con event, we sold out completely.” OINK is the official merchandise partner with Diamond Comics (creators of Chacha Chaudhary and Sabu) and has a range of their magnets, key chains and mugs. In 2015, OINK had 10 online stores and 20 partner stores.

We had been talking for almost one and a half hours and Butool still did not show any signs of fatigue. Rather, her sheer energy and highly infectious enthusiasm left me wondering as to how she manages her time.

“Aah!” Butool reflected, “This is one question that I think hard about and struggle with. My husband often jokes ‘squander away all your money on your hobbies’. Seriously, I would advise others to be more focussed and manage time properly. What is crucial is to keep up your word as people would know you for your word. Presently, most of my projects are in an auto-pilot mode, so I am relieved.”

Butool is teeming with ideas. Two more offices of Thinking Threads in tier II cities are on cards. She has set up her marketing office in Mumbai where she currently resides with her husband. She has decided to focus on

Thinking Threads and OINK for now putting Thinkizm and Design Mela on a back burner. “I have only 2 people working for it. The problem is to find committed and serious people who are willing to patiently work in this field. Moreover, I intend to make it crowd-funded through investors and also crowd-sourced by getting more partners and contributors to come and pitch in,” said Butool. In spite of her numerous commitments, Butool manages to squeeze out time for her family and her other interests that include books and movies. She loves reading blogs and is also a part of many women networking groups.

Butool has achieved a lot at a very young age. She credits her parents for her success. She also carries a deep impression of Ms Sunitha Krishnan whose exemplary life, she thinks, is an inspiration for every woman. “I deeply admire her for her work. So far, she has saved around 4000 girls from brothels and 6000 from trafficking. I was so impressed by her that I called her up and told her that our company would do all their designing work for free.” Butool’s admiration for Ms. Sunitha stems from her belief that one must do things in life which inspire others to do meaningful work in theirs.

Though it was time to close the interview, the woman in me could not resist asking her about her experiences as a young woman entrepreneur. Are they any different from those of a man?

“I think it is all about your attitude. The way you carry off yourself. I never enter the boardrooms or converse with my clients as a woman entrepreneur but just an entrepreneur. In boardrooms and meetings, I feel very competitive when surrounded by men of my age. Overall my experience has been overwhelming. People have treated me well. However, I do feel that a man’s way of doing business is very different from that of a woman. Men can chase money and growth but women start feeling empty after a point. Women have to be comfortable with themselves.” Indeed!

Throughout our conversation, Butool was effervescent and sparkling. Her vivacious expressions signalled that she is a woman of grit. She believes that a person’s character can be interpreted by the manner of his/ her gait. As a kid, Butool never used any support to walk. She walked and fell and then again stood up to walk farther. In spite of all the injuries and bruises, she continued to do it until she learnt to walk independently. Even today, Butool follows a similar approach towards life. She dreams and then boldly dives into uncharted waters not letting any impending challenges intimidate her.

Tips for Entrepreneurs

- *Nothing can prepare you for the amount of work you have to do in running your company. I believe if I had done an MBA I might have never taken the plunge because the MBA programme would have exposed me to the challenges involved in it.*
- *The Indian design market is flourishing and the world is approaching it for fulfilling its needs. Moreover, designers have nothing to lose. They are needed in 1000s whereas India produces them only in 100s.*

Sanjeev Newar

Founder, Aarsh Management,
4FrontAnalytics



Like most true Marwaris, Sanjeev always considered a 9 to 5 job as a means of gaining few years of domain experience before taking the plunge. *“It is quite similar to what people of Uttaranchal think of army. They join the army not for the glamour associated with it but because it is the only option they are aware of. Similarly, I consider ‘Entrepreneurship’ as a highly glamorised word. All throughout my life, I thought of it as the only way to fend for myself,”* says the 39-year-old multifaceted entrepreneur. Sanjeev Newar is the owner of two successful ventures -- Aarsh Management and 4FrontAnalytics. The eminent CIO Review listed Aarsh Management as one of the 20 Most Promising Risk Management solutions providers in the world consecutively for the years 2014 and 2015. Besides his entrepreneurial pursuits, it is his strong commitment towards giving back to society in all possible ways which keeps him occupied.

Sanjeev hails from a traditional Marwari business family of Kolkata. His father and older brother, like his other relatives, are into traditional family business. As Sanjeev likes to put it, he spent his childhood amongst businessmen and it was, quite surprisingly, only after taking up his first job that he had his first real interaction with the people in service. However, it was the academic and the cosmopolitan culture of Kolkata that cast a spell on him, inculcating in him love for creativity and innovation. The influence was so deep that while he attributes his zeal for entrepreneurship to his Marwari roots, he largely credits his emergence as a technopreneur to the city. “Interacting with Bengalis gave me an edge. They are intellectual and are known for their refined cultural tastes. It is because of this exposure that I developed a strong inclination for education at an early age. And fortunately my parents provided me all the necessary support as they too were ahead of others in education domain,” revealed Sanjeev. For this very reason, traditional businesses of retail, accounting and marketing never held any appeal for him.

Though Sanjeev was determined to chart his own path, he had only a vague idea of his future. “While I was studying in class 10th, my father handed me a directory that listed all the engineering colleges of India. Being completely unaware of my inclinations, I circled almost nine of the fifteen engineering courses as my future options. Those were not the Google times so we had very limited information. But I had a group of highly motivated friends and together we formed our study group at school.” Sanjeev succeeded in cracking his JEE in the first attempt and joined IIT Guwahati to pursue a degree in Mechanical Engineering.

It was 1995 and IIT Guwahati had just started its academic programmes. As students from the first batch, Sanjeev and his batchmates, as he claims, were involved equally in setting up the institute as were the faculty and the management. Joyfully reminiscing the good old college days, Sanjeev said, “Looking back in time, the whole experience seems to be very entrepreneurial in nature. Nothing was in place. The institute used to run from a small building in the Guwahati city. All the professors were fresh PhDs. My friends and I were instrumental in setting up the library, building a strong network of people.”

Was he still nursing the dream of becoming an entrepreneur?

“As I said earlier, entrepreneurship was never a dream for me. That is the only way I know to survive in this world.”

While pursuing his engineering degree, a number of business ideas crossed his mind but none was convincing enough to take a leap. Later, on somebody's suggestion, Sanjeev decided to sit for both the Indian Civil Services as well as the CAT exams. But his ultimate goal remained unchanged. Work for few years, build a strong network and then start a company.

Eventually, in 2000, Sanjeev joined IIM Calcutta. There too his zeal for working on new ideas and seeing them successfully implemented won him laurels. He set up the institute's Entrepreneurship-cell and conceived an international B-plan competition. Popularly known as ideas to implementation or i2i competition, it acted as a platform for upcoming entrepreneurs to realize their dreams. He managed to raise ₹ 40 lakh for the cell and attracted the attention of many eminent people including Dr. Michael Porter, the very famous Harvard Business School professor.

Did he ever think of starting his own company with the E-cell's help?

"At that time I was in a state of flux. There were many ideas but nothing was worth taking a chance."

Wouldn't some sort of mentoring or advice helped him?

"I did seek advices from seniors and experienced people but the fact is that there are a lot of people to give you high-level knowledge but nobody will tell you what is to be done at the base level," he replied candidly. Here, Sanjeev cautioned that every point in time is a different time. What worked for Narayana Murthy may not work for you. Therefore, listen to everyone but take your own decisions.

Since Sanjeev is greatly indebted to the institute for his success, I was curious to know if he too is of the opinion that MBA is a must for starting your own venture.

"I would not have done all this if I had not gone to IIM. It gave me the much needed exposure and broadened my horizons. I did a general course in management where I learnt almost every aspect of running a business and also built a strong network. However, I have always emphasized that an entrepreneur is always self-directed. No courses or textbooks can teach you the dos and don'ts of running your company. All the theoretical information is just a click away."

From 2002 to 2008, Sanjeev worked with several reputed companies including Johnson and Johnson, Citibank, Sterilite, ICRA and American Express. However, his high-profile stints, including the one with the Gujarat's chief minister's office, could not deflect him from his goal. As he continued with his search for viable business ideas, two of his friends

came up with a business idea and invited Sanjeev to be a part of it. In 2004, Sanjeev took a sabbatical from office and started working on the idea. The plan was to start MBA coaching centres for students and then gradually expand the operations across the country. The trio achieved tremendous success. But, Sanjeev's hunger for innovation and technology remained insatiable. He wanted to do something innovative and creative that befitted his education as well. Soon he was convinced that the idea could not be scaled up beyond a certain level and decided to quit.

While working with ICRA and American Express, Sanjeev developed a few models of financial risk management. Using those models, he predicted an impending credit crisis and wrote about it in his article '*The (not so) great retail boom*' that was published in *The Economic Times* on 27th September 2006. In 2007, the crisis became a reality thus proving the accuracy and the reliability of the models developed by him. From there stemmed the idea of his company. He started thinking of helping the emerging economies with his developed tools. While Sanjeev was still brainstorming the idea, Dr. B.V. Phani, the then SIIC Coordinator, IIT Kanpur, chanced to read his articles and invited him for discussions. As a result, in 2008, Sanjeev launched Aarsh Management Pvt. Ltd. It was only after a year that he left his job with the American Express and immersed full time in the company.

Aarsh Management is dedicated to providing risk management solutions to emerging economies of the Middle East, Africa and Sri Lanka. The company offers highly advanced, affordable and user-friendly risk management solutions encompassing Credit Risk, Market Risk, Operational Risk and Anti-Money Laundering. In 2013, the company clinched its biggest deal by defeating multinational giants like KPMG and E&Y in a bid to bag a prestigious project from a multilateral agency in Africa. The win has enabled them to benchmark against the best in the field. In 2014 and 2015, Aarsh Management was ranked as one of the 20 Most Promising Risk Management solutions providers in the world by the eminent CIO Review. In fact, Aarsh is the only company from the entire Asia to figure in the list.

Is there any success mantra that he follows?

Providing deeper insights into his business philosophy, Sanjeev replied, "Most of us are obsessed with technology but my thumb rule is -- can you excite a five year old with it? Is he/she able to make some sense out of it even if it is highly complex? Else, the solutions are of no use without user manuals and training programmes. Therefore, I always ensure that our

solutions are very simple to use and can be self-learnt. Our focus is not only in meeting the regulatory requirements of clients but also generating higher profits for them.”

Sanjeev deliberately chose to work with emerging economies rather than developed economies.

“It is difficult to crack the developed economies as there are more players in the market and the clients need guarantee of the robustness of the solution in the form of revenues, testimonials and history. I could have managed that but I thought why not to work for smaller economies that are dependent on the larger ones and are most impacted. That way I would be able to help the society as well.”

Before Sanjeev gained a stable foothold in the business, he struggled for a few years. From domain expertise and finances to setting up a team and winning over clients, he faced myriad problems.

“IT was never my core strength. It was very challenging for me to transform my ideas and implement them. Everyone I met either gave me too simplistic solutions or too advanced. Therefore, learning the right tools took me some time,” said he.

Setting up a team proved to be the toughest challenge for Sanjeev. He did not start with the right people. Whoever showed a little interest in his idea, he included them in his team. “You always start with zero and end up giving a good amount of share holding to the partners. I initially started with 4 people. Two became passive partners and one eventually left the company. I am the only person left from the core team. It was my mistake that I didn’t assess them objectively.” Today, Sanjeev considers three criteria before recruiting any person for a crucial role in the company. First is stakes. He ensures that the person is putting in high stakes so that he/she cannot afford to take a back step. Second is their ability to tackle day-to-day situations, which Sanjeev refers to as real-life abilities. Third is their ability to work under uncertain conditions. In his opinion, flexibility is the key strength of any start-up. Overemphasis on a structured layout can seriously hamper the growth. Therefore, it is good to have a team that enjoys flexibility.

Sanjeev is straightforward and upfront when it comes to speaking about the glitches in the system. Like many other entrepreneurs, he too thinks that the government’s support to the start-ups is inadequate and therefore entrepreneurs are left to raise the finances on their own. In spite of numerous government plans and policies to promote entrepreneurship

in the country, raising funds is a big roadblock. Even the firms that claim to boost the new business ventures are not of much help. “Recently, one of the IIMs floated a tender for supply, installation and training of Library Automation System. But one of the criteria was that the company must be a National IT organization with an annual turnover of ₹ 5 crores (March 2013). Now, it is an excellent opportunity for the technology start-ups but meeting the turnover criterion is difficult. So these small projects are also snatched away from them. With a little change in the mindsets, both the start-ups and the government can be benefited,” lamented Sanjeev. Investing his own personal savings in the venture, Sanjeev set the ball rolling. Later, he availed a seed fund of ₹ 25 lakh from SIIC. In 2011, as he planned to expand the company operations, he applied for the second round of funding worth ₹ 1 crores from SIDBI. The funding did get approved but it took almost one and a half years before he received the money. The delay had a damaging impact on the company’s scalability as many big projects had to be either postponed or cancelled.

Did he ever feel dejected and think of going back to the comforts of his cushy job?

“For me, challenging times serve as a test of your belief in yourself. All you need is to continue playing the game and find the right direction. In such situations, my role models come to my rescue,” Sanjeev jokingly said.

And who are these role models?

“Steve Jobs and the famous Indian freedom fighter, Netaji Subhash Chandra Bose. Whenever I have to quote an inspirational story during lectures and talks, I talk about them.”

In spite of all the odds, Sanjeev continued to move ahead. Analytics had become his core strength by virtue of his experience in the first company. Soon, he realized that there is a need for good analytical solutions in almost all the domains and therefore, in 2011, he started his second company. By then, he had learnt the tricks of doing business which simplified his task and saved him time and resources. Moreover, he had become skilled in managing the team and getting the best out of them. Offering yet another piece of advice, Sanjeev said, “Properly defining a task for an employee is very crucial as it minimises your supervision. Moreover, security can easily be breached in a start-up and needs to be handled with utmost care.” His second company ‘4FrontAnalytics’ offers solutions for forecasting and supply chain management and has a much wider client base.

Throughout the conversation, Sanjeev shared several nuggets of wisdom that left me impressed. It indeed made me surer of the fact that his Marwari roots had a role to play in his success. But alas! He proved me wrong. Rather, he had to unlearn some of the traditional ways of doing business. “Marwaris are the most enterprising people and biggest risk takers I have come across but they have very strong mindsets when it comes to the types of businesses one must do and the ways of running them.” However, Sanjeev thinks that this trait is common amongst people. We all are looking for some quick money and want to play safe.

Besides managing his two companies, Sanjeev regularly writes and takes lectures on Finance and Risk Management across the leading institutes of the world including at IIT Kanpur.

That’s not all to Sanjeev’s story. He approaches both his personal as well as professional life with the same principle of accountability. He believes that as you give, so shall you receive. He would like to be perceived as a social transformer rather than an entrepreneur. A big amount of his earnings is directed towards social activities. In 2006, he founded Jan Swabhiman Social Welfare Society aimed at providing IT trainings to underprivileged youth and promoting empowerment. The society is mainly functional in parts of West Bengal, Kerala, Maharashtra and Uttar Pradesh. His work at grassroots level exposed him to the deep rooted inequalities in our society and their links with the religion. To counter-act the religious fanaticism, in 2008 he started an online portal called Agniveer. It is dedicated to the issues of gender inequality, civil rights, education and women empowerment. Some of its activities evoked backlash and the portal got banned in a few places. Despite numerous controversies and death threats, Sanjeev continues to work in this direction with an unflinching commitment.

In future, Sanjeev plans to sell Aarsh Management as the company needs expansion and thereby huge investments. He will continue to hold 4FrontAnalytics and focus on simulation based sophisticated IT trainings and analytics based offerings. He thinks that a company is just a regulatory form of business. What is more crucial is a viable and scalable business idea. For instance, 4FrontAnalytics can be split into three different companies but that would merely entail a structural change.

Sanjeev is a man of deep convictions and believes that any mistake done out of conviction can be compensated only with more conviction. You are bound to make mistakes in life but you must continue to move forward. Perhaps, this is the reason why Sanjeev does not have any regrets in life. He is a man who lives in the moment with his eye on the future.

Tips for Entrepreneurs

- *A few years of industry experience always helps especially while dealing with the Indian economy. Learn to maximize your hands-on knowledge.*
- *When you start your company there are 20 different things that you will have to handle and you will feel as if you are not prepared for the chance. Take the plunge and the rest will fall in place.*
- *Entrepreneurship is all about instigating your inner instincts. It is an arduous journey and you must have deep conviction to undertake it.*

Anand Shenoy

Founder, IAITO, PV Urja, jusTap



Anand was born to win. Be it the game of football or the game of life, he remained undeterred by challenges and kept pursuing his dreams until he emerged a winner. *“Nobody knows the exact time and date when things will begin to click and you will achieve your goals. Till then remain steadfast in your endeavours and continue to play the game,”* says the 34-year-old serial entrepreneur, in his usual confident tone. Anand Shenoy is a serial entrepreneur with three successful ventures -- IAITO, PV Urja and jusTap -- to his credit. It is his sharp business acumen that has driven IAITO to its phenomenal success and is taking the other two companies up the growth curve.

Anand was born and brought up in a lower middle class family of Kolkata. After losing his father when he was barely 3, he and his family had to live through extremely hard times. While his mother took up a job with an NGO, he and his elder sister started taking tuitions to support their education. But soon these sources of income started to fall short of the growing needs of the family. It was then that, in consultation with his mother, Anand entered into a business venture in partnership with a 38-year-old local businessman.

An age difference of 24 years is wide enough to intimidate any teenager but not Anand.

“I was slightly nervous but not scared. We knew Mr. Nazeer well and my mother had already spoken to him so there was a comfort level between us. Moreover, the man was more interested in the money that I was bringing in.” The venture was in organised retail where the duo sold precious imported items to certain defined B2B and B2C customers. Mr. Nazeer was already doing the business on a small scale but after Anand joined him they scaled up their geography and the business also grew. Though Anand has a vague memory of that time, he particularly remembers one incidence, “In those days, the biggest challenge was the collection of credit line payments from B2B clients. So we devised a strategy. I started visiting clients to collect the payments. In case they delayed payments multiple times, I would sit and cry in front of their shops to generate sympathy for myself. Mostly, the trick worked. The neighbours would come and pressurise the client for payments. In this manner, we retained the customer relations as well as collected the payments. My age played a big role over there.” Anand’s strong survival instincts had developed at an early age and he knew well how to swim through rough tides.

That was the beginning of Anand’s journey as a serial entrepreneur. In spite of his young age and inexperience, he not only delivered good results but also simultaneously managed his studies. With an investment of ₹ 5500, he exited the business with ₹ 16 lakh in hand. By then, the business had grown exponentially.

What a whooping profit!! Then, why did he quit especially when he was in need of money?

“Well, my needs were fulfilled and I was to start my college. Also, it had been 5 years and I realised that the business could not have been scaled up further. But Mr. Nazeer still continues to do the same business,”

Anand answered smilingly. The venture had proved to be a good kick start for Anand where he learnt the basics of business dynamics and his first lesson in doing business. Business must be scalable.

Later, Anand went on to join the West Bengal Engineering College to pursue a degree in Electrical Engineering. While still in the third year, he came across a group of seniors who were toying with the idea of starting up a company but lacked funds. Still brimming with confidence after his success in the first business, Anand decided to invest in the venture; hence, the company 'CISA' was born named after the initials of the founders. Contrary to what he says that it was to boost his teenage pride that he decided to invest, it was his newfound passion for challenges that ultimately made him plunge. Recalling those times, Anand said, "The venture was in the area of network securities and access controls. We used our hostel rooms to run the business and our first client was our college itself. We did a couple of lab prototypes and won several awards in technical events that kept the cash pumping in. But due to legal constraints we could not register the company". After a year, three of the partners graduated out of college and lost touch with the company. Nevertheless, Anand continued with the brand. He showcased his works in several international conferences and wrote three research papers. Although he never made huge profits, his second stint taught him yet another important lesson. Team is crucial for success.

The bug of entrepreneurship had bitten Anand. After graduation, Anand joined a Finland based company, only to leave it in 6 months. In 2005, he joined the IIT Kanpur's Robotics Centre as a research associate. It was here, while attending a conference on RFID (Radio-frequency Identification), that he got the idea for his third but first solo venture. "That remains one of the best conferences I have attended so far. I was completely fascinated by the technology as it can be used across industries and hence its scope remains limitless. I started studying about the Indian market and the major players in the field." After 3 to 4 months of serious research, Anand wrote a proposal and presented it to the SIIC panel. Simultaneously, he also focussed on team building bringing in his juniors and friends. Anand firmly believes that a highly reliable, dedicated and efficient team is one of the ingredients for a successful business, a lesson he had learnt not long ago. Finally, in 2006, he registered IAITO Pvt. Ltd.

IAITO provides state-of-the-art tracking and locating solutions for embedded systems as well as advanced applied Radio Frequency Identification systems. The company delivers RFID readers, RFID

tags and RFID antennas. With heavy R&D investments, the company has developed turnkey RFID solutions that consist of highly integrated hardware and software, and other professional services. These turnkey solutions cover industries like Manufacturing, Automotive, Healthcare, Transportation, Retail and Aviation. Started with an initial investment of ₹ 24 lakh, IAITO's turnover has crossed ₹ 3 crores with 20% of the revenues generated from exports. Presently, the company is looking towards an exponential growth. It has 60 employees and is rightly placed amongst the top three players in the Indian RFID market. It also won the RFID Journal Green Award as the Best Runner up 2011 held in Florida, USA.

While establishing his company, Anand had to go through several bottlenecks and the biggest was location.

“One of the major hurdles was location. The city of Kanpur poses several problems for entrepreneurs in terms of lack of trained and efficient human resources and poor connectivity between cities, thus, hampering their growth. Besides, as none of my team members hailed from U.P., I used my hostel address to register the company only realising it after a year the gravity of the mistake.” Anand continued. “There were times when I had only ₹ 50 in my pocket and had to take five people to dinner. In such scenarios, IITK canteens acted as lifesavers.” There were far more serious and embarrassing situations like not paying salaries on time. Nevertheless, his team stood by him, thus reinforcing his belief in the importance of team reliability.

A well-devised and a well-thought-out strategy for the company's growth set the ball rolling. At the time when people were busy in importing the products, IAITO focussed its attention towards manufacturing them. It designed its own hardware and built a strong software team to write the solutions. Soon, the package was ready to be used across industries. Anand clearly remembers the company's first project for a Bangalore based firm which fetched them ₹ 1.21 lakh. Though the company cracked a few big deals with technology giants like TCS and HCL, its growth trajectory got hit by the process of product customization.

“In our business, we used to provide enterprise level solutions i.e. hardware, software and support. During our initial days, we invested a huge amount of our time and energy in converting business from private enterprises but later we realised that if we invest the same amount of time and energy in the government sector and work at the policy level then opportunities will be huge.”

By the end of 2009, the company shifted its focus towards the government sector. As soon as the government announced the use of RFID technology mandatory in vehicles, it turned around the whole story. The company bagged a few big projects and in due course raised funds from TIFAC-SIDBI under SRIJAN scheme and venture capitalists.

Working with the government sector is not easy because of the red tape involved in getting things done and those who work often complain about the hurdles faced. However, Anand is an exception.

“Rather than complaints, I have only a few insights to share. With the government sector, things move at a snail pace. I have personally seen three road transport ministers change. We worked very closely with senior level government officials and fortunately came across a couple of good personnel among them. Also, our only USP was our knowledge base and expertise. Here, our IITK brand helped us gain trust amongst government officials and they started looking at us as technology experts and not mere usual businessmen. We convinced the government to make the use of RFID tag in every solar panel as mandatory.” In the next 3 years, Anand informs, every vehicle will have RFID tag as per the government policy. Before the mandate comes out, his team is ready with brochures, products, marketing collaterals and PPTs. In a nutshell, they are one step ahead of their competitors. This has taught him an important lesson – Be pro-active and create market for your products.

Anand’s agile mind never lets him rest and keeps popping up new ideas. While working with the Ministry of Renewable Energy, Anand and his team got an opportunity to interact with solar product manufacturers. They attended a few solar expos around the world which gave them the idea for their next venture. Thus, after months of extensive market research, PV Urja was registered in 2010. Anand invested about ₹ 20 lakh in the company. Currently, his wife serves as the Managing Director of it. Anand claims that PV Urja will truly be their next big turnaround story. The retail level of the business i.e. distributing solar products like fans and lanterns is doing well but needs more funds and a professional team for its expansion. Within next 2 to 3 months, the company will launch its own products. The team is also holding serious discussions with industries before zeroing in on the right technology for future focus. Anand, like a true leader, credits his team for his success and leaves no opportunity to publically praise them.

With his perfectly composed demeanour, Anand cuts an impressive picture of a seasoned player. He is sharp, focussed and dynamic. Conceiving new ideas, working on them, implementing them and finally turning them into products is what he is in love with. After setting up two companies, he was comparatively free, as he likes to put it, and once again started to think of a new idea. Finally, in 2012, the idea took shape of his fifth venture ‘jusTap Pvt. Ltd.’

“Every brand wants to come closer to its customers. Here, we have tried to bring a rich media solution that gives a brand the competitive edge required to create a whole new dimension for its customers. Be it the information awareness or simply an alternative channel for revenue, we ensure to provide solutions that engage and empower the customer and also enhance the experience.” jusTap is an innovative way to bring a rich media solution from the offline to the online world. It is an interactive and a highly versatile mobility platform for smart phone users. The company has a range of innovative and competitive solutions on mobile across industries like media & entertainment, travel & tourism, hospitality, financial Services, FMCG, retail, education and advertising.

From RFID to Solar energy to mobile applications, Anand has come a long way. Was it not difficult to switch the domains?

“Changing domains is never easy. But a company must be driven by co-drivers. You have to have co-pilots. Once the team is ready to take the charge, I take an exit and concentrate on other ideas. Presently, my focus is on jusTap. But I ensure that every evening my teams update me on the day-to-day happenings in the companies.”

Currently, Anand is planning to consolidate IAITO and jusTap which will easily crack ₹ 6-7 crores next year. He is also looking for mergers. He is in talks with a Mumbai based investment group and if everything sails smoothly the merger will take the two consolidated companies to new heights. At this juncture, Anand has another important insight to share. It is not the percentage of the stock which is important but the value of the stock that you have. Unfortunately, for most it is the percentage that matters.

Completely in awe of his business acumen, I asked Anand about his success mantra in life. And he gaily responded. “I cannot afford to lose a game so I continue to persevere until I win it. In West Bengal, the culture of club level games prevails. I still clearly remember an incident from my

college days. We were playing finals and I was the captain of the cricket team. After losing our wickets early we realised that in no way we could have won this game. Therefore, during drinks break, we intimidated our batsmen to hit the balls fast as of which the balls got lost. Eventually, the game was called off and was declared a draw.” This was perhaps the only time when I could see the lighter side of Anand who otherwise comes across as a serious and a no-nonsense guy.

Anand is a brilliant strategist who has solutions for the most simple as well as the most complex problems. However, he too gets bogged down by worries and pressures. In 2014, IAITO lost a big government contract crashing its yearly revenue targets. It was a major setback for Anand. Since then, he has learnt to take failures in his stride and considers them a part of the growing process.

Anand’s stupendous success story sounds like a fairytale and he has a few people to thank for it.

“For me, my mother remains my inspiration. Since childhood, I saw her cutting pictures of famous people and putting them up on a board. I used to feel inspired by looking at them. The other person whom I deeply admire is Mr. Ratan Tata. He is an inspiration for almost every entrepreneur.”

As the famous saying goes ‘you win some, you lose some’. Does it hold true for Anand’s life as well? Has his success come at the cost of his personal life?

Anand smiled for a while and then replied, “My family knows that agar banda kam karta hai to theek chalta hai or shaant rehta hai (work keeps me fit and happy). Before asking out for a movie my wife ensures that I am in a good mood. But if she finds me in a foul mood then she doesn’t disturb me.”

In spite of achieving unparalleled success, Anand has a few regrets. He believes that the environment in India is not very conducive to doing business. And he shares a few facts to corroborate his viewpoint. “Last year, the US received \$5 billion for entrepreneurial activities. Out of 10 entrepreneurs, 7 got angel investments whereas in India the funds are of the tune of \$50 million and out of 100 only 1 gets angel investment. But I am still optimistic. Gradually, things are changing in India too. Now, the corporate sector can invest 2% of their funds marked for CSR activities in start-ups.”

As our conversation neared its end, Anand suddenly interrupted as if he had forgotten to share an essential detail. “Well! You will be little surprised but we are about to launch our new venture called ‘Gourmet BnC’ in Delhi and NCR regions where we plan to deliver the best food experiences to our customers. My wife is the person behind this launch.” His announcement completely took me by surprise but before I could gather my senses and ask him any further details, he chimed in, “One should always learn from their 2nd and 3rd markets before entering into the first market. That is the reason we are going for Delhi NCR before entering Mumbai.”

For Anand, what started as a need to survive turned into a life-long passion thus inculcating in him love for challenges. He plans to retire by the age of 40 and settle down in Mauritius or Goa (his native place). His retirement thought though sounds bizarre but he may open up a resort there and start yet another profitable business.

Tips for Entrepreneurs

- *The young must take their chances. They must go and try it out fearlessly as industry doors will always remain open for them.*
- *Prior industry experience is not necessary but thorough knowledge of different fields is a big plus. I personally know many venture capitalists and am completely aware of the domain as to how the model works and what the VCs look for within a company.*

Balaji Nagarajan

Founder, Geokno India



Throughout his growing up years he only dreamt of starting his venture and finally when he did succeed, he willingly gave away a majority stake of his company to a big giant. It was a difficult but an essential move. *“Your emotions should not stand in way of your company’s growth and expansion. There are times in businesses when you need to decide whether you want a major portion of a small chunk or a small portion of a major chunk,”* says the 32-year-old dynamic entrepreneur, whose only motto in life is to leave his footprints behind. Balaji Nagarajan is the founder of Geokno India, a company that offers path breaking solutions and services in Geospatial Technology. In 2012, the GMR Group of Infrastructures bought a majority stake in the company thus strengthening its growth curve.

Born on 22nd May 1982 in Devakottai, Tamil Nadu, Balaji Nagarajan grew up in a middle-class household. His father worked as a school teacher and laid special emphasis on learning. Balaji believes that the grooming he and his siblings received in childhood could have never let them work under someone else's commands. Crediting his father for his passion for entrepreneurship, Balaji revealed, "My father had a very holistic approach towards teaching and learning. For him, school studies only formed a small part of our lives. He made us question everything that we did and why we did it. In a way, he inculcated in us the ability to think independently and the courage to listen to our own voice, the two pre-requisites to succeed in life." Today, all five of them are involved in their own setups, big or small.

Throughout his schooling, Balaji remained an outstanding student and participated in extracurricular activities that involved managing and leading initiatives. After finishing school, he decided to sit for the IITJEE exam but soon realised, much to his dismay, that language was a hindrance. He could neither understand Hindi nor English. "Though my father had a profound influence on me, his decisions sometimes came at a cost. He himself taught in an English medium school but he sent us to a local school where Tamil was used as the medium of instructions as he believed that learning subjects was more important than the medium itself. I had to pay a heavy price for not knowing the language," Balaji sighed. After facing disappointment from state engineering colleges too, he finally settled for Bachelors in Physics in The American College, Madurai, affiliated to Madurai Kamaraj University.

Does he still regret on losing out an opportunity to study in an IIT?

"Back then, I used to regret but later I did fulfil my dream."

The college proved to be a testing ground for Balaji. For the first time in his life, he had the fear of failing in exams as he could not understand English. He went back home and fought with his father holding him responsible for his condition. But his father only proved to be the motivating factor. Balaji's hard work paid off as he topped the exams. His success not only made him confident of his abilities but also gave him the much needed push to start on his own.

"I was too keen to do something so much so that I even thought of buying an agricultural land for farming," Balaji laughed and continued, "but my father intervened and suggested that I should either study further or do something that befits my education." That served as an important

lesson for Balaji – the domain must be of your interest and must test your calibre as well. However, he took some time before actually implementing it.

Following his father's advice, Balaji joined the Masters programme but continued racking his brains for a new idea. Eventually, in 2006 after passing his Masters with flying colours, he along with his two friends decided to set up a detergent factory and took two months training at Gandhigram Trust (KVIPCT) for the same. However, before the idea could take a shape, the two friends took up jobs leaving Balaji stranded alone.

Balaji believes that every phase of life has some lesson to teach only if you are willing to learn. That incident taught him that founding partners' commitment, dedication and sincerity are crucial for business success.

Balaji was not demoralised. Aside from taking up a job of a lecturer with a monthly salary of ₹ 4000 to meet his expenses, he started coaching students for BE entrance along with one of his colleagues. The duo rented a place and arranged for logistics as well. But they failed to market their name properly as of which they didn't make any profits. Before they could even address this issue, Balaji decided to quit and move on as he found teaching monotonous and boring. As he was still in a dilemma, his father came to his rescue and suggested him to start a technology based business. After fiercely brainstorming for days, Balaji decided to go for an M.Tech. and zeroed in on three areas – Material sciences, Geoinformatics and Non-destructive Testing. In 2006, he finally joined the Remote Sensing programme at PSNA College of Engineering and Technology under Anna University. "My goal was to do business and Geoinformatics offered a scope. With the ambition of producing and selling tourist maps, I joined the programme," smilingly he added.

Before I could proceed further, Balaji suddenly interrupted. He was too eager to share another vivid memory of those times. "There I was introduced to computers for the first time. I was thrilled and wanted to learn as much as I could. So I took a crucial decision of buying my own laptop. It was HP 9100A with 1GB RAM memory and Windows Vista OS. The glitch was that none of the softwares that I was working on was compatible with the OS. People suggested me to downgrade it but I only believe in moving forward. So I figured out a solution and went ahead." The story initially seemed very trivial to me but later I realised that he was trying to make his point. Go for the best and do not settle for anything less.

Balaji's most endearing quality is his indomitable will to pursue his dreams to the hilt. In January 2008, Balaji got an opportunity to fulfil his unfinished dream – the dream of studying in an IIT. He joined Dr. Bharat Lohani at IIT Kanpur for his M.Tech. thesis project. Dr. Lohani offered him to work in the area of WebGIS technology. Owing to his love for challenges, Balaji jumped at the opportunity and finished the task before the stipulated time leaving Dr. Lohani impressed. While he continued working on the project, he came across SIIC at IITK which is actively engaged in promoting entrepreneurship. IIT Kanpur offered him what he had always been looking for – an opportunity to realise his dreams.

Balaji then decided to set up a company with his colleague and discussed the idea with Dr. Lohani. “Dr. Lohani asked us several questions and during the discussions, it was revealed that my other partner was aiming for a doctorate degree and did not nurse the same ambitions as I did. It dampened my spirits as once again I was on the verge of losing a golden chance. But this time luck favoured me. While attending a training programme in terrestrial LiDAR technology, an idea struck me and I decided to start a company with Dr. Lohani as a partner.” By then, Dr. Lohani was keen to take his research in Laser Scanning area to the field and translate it into applicable products and solutions. Balaji provided him the right trigger and he eventually agreed. On 20th May 2009, Geokno India Pvt. Ltd. (derived from Geospatial Knowledge) was officially registered and incubated at SIIC.

Geokno India is a company aimed at developing innovative and path-breaking solutions and services in Geospatial Technology particularly Terrestrial Laser Scanning, Airborne LiDAR, 3D modelling and WebGIS. The company uses in-house developed algorithms and workflows for collecting rapid and accurate 3D Point cloud data. It endeavours to introduce these new technologies and solutions in a cost-effective and efficient manner. Geokno is the first company in India to have scanners in all the three categories - Airborne, Mobile and Terrestrial LiDAR. So far, it has served multiple industries from roadways, railways, airways to mining and heritage conservation. In 2011, the company won the Indian Science & Technology Entrepreneurs Parks and Business Incubators Association (ISBA) award in the Information and Communication Technology category.

The most interesting fact to note is the revenue sharing model wherein Dr. Lohani is entitled to 60% profits and Balaji to 40%. Many would not be comfortable with such a model but Balaji seemed happy.

“It was a mutual decision. Moreover, we two cannot be compared. Dr. Lohani is a genius in the LiDAR field. Also, he gave me complete freedom to handle the company affairs,” Balaji humbly replied. Balaji believes that if you want to achieve your goals then you have to give benefits to others as well.

Balaji has worked tirelessly to take Geokno to the stage where it is today. Coming from a research background, he took time to understand the dynamics of the industry. Gradually, he became comfortable of working under stringent deadlines and complying with them. As the projects started pouring in, another problem showed up – the shortage of manpower. “It is very difficult to get good resources in Kanpur. In case you are lucky to have some good people, they will quit after some time as LiDAR sector fetches you good salaries. So we really struggled with the high attrition rate.” At that crucial juncture, Balaji asked one of his colleagues Mr. Palanisamy, who was then working with Rolta India, to join him. Mr. Palanisamy readily agreed and came on board. Balaji proudly calls himself and Palanisamy as the oldest employees of the company.

The year 2011 posed the toughest challenge for Balaji. Till then, the company had been using IITK lab facilities for R&D and paying rentals to the institute. Suddenly, there was a change in the policies of the institute and the company was barred from using the facilities. They were left with no time to look for an alternative. As a result, they lost 3 key projects thus hampering their growth. “That was probably the lowest moment for me and a huge setback. But it also was an eye opener. Sooner or later we had to move out of the incubation facility and set up our own space,” said Balaji. It is then that he applied for SIDBI seed fund and bank loans and decided to acquire some office space in Bangalore. He opines, “You should not hesitate in investing in your company as it will only reap benefits. If you invest ₹ 10 crores, you will get ₹ 20 crores in revenues.”

Is it not a risky proposition?

“You have to play smart. First, we set up separate teams for marketing and branding and decided to go for B2B model rather than B2C. Then, we decided to develop our business in two technologies in parallel – LiDAR and WebGIS - and focus on specific sectors. So we chose infrastructure which itself is huge. Our target was to bid for challenging projects that would earn us good revenues as well as help us in building our credibility.”

Was he not nervous while playing this game? It could have backfired.

Crediting his daredevil approach towards life to his father, Balaji replied, “I have nothing to fear. We had and still have some of the best resources in this industry. And then I had the will to succeed no matter what it takes.” Over a limited period of time Geokno has completed some exciting projects on the use of laser scanning. For instance, in 2012 the company did a topographical survey for Hydro Power Dam at Pipalkoti using Terrestrial Laser Scanning. It was a breakthrough in the field as the conventional surveying methods used by the previous companies had failed.

Started with a meagre investment of ₹ 5 lakh (3 from Dr. Lohani and 2 from Nagarajan), Geokno has reached an enviable position today. It has a plush office in Bangalore with strength of 40. Since its inception, the turnover of the company has grown in leaps and bounds. In its first two years, the company recorded a turnover of ₹ 70 lakh which increased to ₹ 2 crores in 2013 and then drastically increased to ₹ 20 crores the next year. Balaji is expecting it to increase to ₹ 100 crores by 2016. The success of Geokno does not stop here. In May 2012, the GMR Group, one of the largest infrastructure developers in the country, acquired a majority stake in the company so as to fully mature the LiDAR technology in India. “In 2011, the GMR Group approached us to give a demo of our products. They were convinced of our quality and strength and asked us to either join them as a department or train their people. I initially refused as ours is an innovation based company. But then, they offered to acquire a stake in the company and I agreed.”

Is it easy to part with your setup that you nourished with your efforts?

“I believe that the more you collaborate with people, the faster you grow. I want my company to be the best in South-East Asia and to realise that dream I need huge investments as Geokno India is a Service-based company. Furthermore, control does not come with stake. You get to control things if you are good in your job.”

Reiterating his point further, Balaji said, “You should decide whether you want a major portion of a small chunk or a small portion of a major chunk.” Geokno’s merger with GMR Group has not only widened the company’s scope for R&D activities but has also lent it a brand name and recognition. Balaji dreams of bringing India at par with the developed countries in Geospatial domain as the technology will play a vital role in locating the minerals and resources of the country.

Balaji has come a long way but surely it has come at a cost. While most of his time goes into managing Geokno, it is his wife who handles things back at home. He wholeheartedly credits his success to his wife Mrs. Sundravalli who has always stood beside him through thick and thin. “I could not be there for my wife when she needed me the most. During the delivery of our first kid Darshad, I was at the project site and reached the hospital only after 2 days. I could not make it for the second delivery as well. It was 31st December 2013. No senior members of our family were around her. She managed it on her own. She has never complained about it.” On the New Year day, the couple were blessed with a baby girl Yeshna.

Balaji continues to remain unaffected by the stupendous success and recognition he has received in a short span of time. In future, he wants to reduce his role in Geokno as soon the company becomes self-sustainable and move on to a new venture. He has already started dreaming of setting up the largest food factory in India.

Tips for Entrepreneurs

- *The only way you can grow is by working with people who are better and smarter than you as they tend to create an intelligent environment around you.*
- *Many businesses fail due to a discord among the founders. One must understand that there can be only one driver who can take charge of the company affairs.*
- *Technology forms only 20% of the business. One must give space to other components as well that are equally vital like marketing, finance and branding.*

**Vishal
&
Preeti Singhal**

Founder, Singhal Labs



They do not have any backup plan in spite of knowing that the domain of their start-up is highly competitive and challenging both from buyers as well as sellers perspective. *“It is better not to have anything to fall back on because then you know that losing out is not an option. So you end up pushing boundaries harder and harder till you achieve success,”* says the husband-wife duo. Vishal and Preeti Singhal are the founders of Singhal Labs. Their flagship product ArtZolo is an online global art exchange platform that aims to revolutionize the art ecosystem. Already declared as one of the ten hottest start-ups by ZoneStartups 2014, ArtZolo is garnering attention within as well as outside the country.

Though it is a cliché, it fits in well in their story. Business is in their blood. Both Vishal and Preeti hail from business families. Vishal's two generations before him were entrepreneurs. His grandfather moved from Haryana to Cochin and started his business from scratch. So did his elder brother who successfully established his food and beverages business on his own. His two sisters as well are into business. Therefore, he could not have kept away from the highs and lows of running his own business for too long. "I never thought of becoming an entrepreneur. After working for Infosys for a few years, I went for an MBA from Toronto, Canada, and later worked for several leading companies for a few more years. It is then that my family started pushing me to return to India. They were little cruel in saying that I was doing garbage and must do something more meaningful," said Vishal smilingly.

Vishal returned to India in 2012 and started thinking of different business ideas. He clearly knew that he wanted to work either in education sector or in ecommerce space that could create some level of social impact on the lives of people. Finally, he decided for an ecommerce business and joined hands with his cousin. However, before they could launch their company, Vishal and his partner realised that their approach towards market was very different and therefore amicably parted ways. By that time, they had vested far too much effort into the space before considering enough. It was then that Vishal decided to pursue the business with several tweaks. To expedite the process, he roped in Preeti and together they rebuilt all the lost ground as well as the technology platform.

Vishal got hooked to Preeti immediately as he returned to India. Back then, she was working for her father's garment factory. "My father never wanted me to work for someone else. Therefore, after completing my B.Com., and a course in interior designing, I joined my father's business where I not only designed garments but handled other aspects of business as well," said Preeti.

Did she decide to join Vishal only to fill in some gap?

She unhesitatingly replied, "Initially, the only reason was to spend more time with him. But eventually..." "Eventually, we ended up with a product that is a perfect blend of our tastes and skills," the duo chorused. Indeed, ArtZolo is a tasteful blend of Vishal's technology prowess and Preeti's creative instincts.

ArtZolo is the result of many pleasant coincidences. "ArtZolo was conceived from quite a few sources. First, family connections and then my interaction with a few art owners in Canada helped me understand that

art has an inherent barrier that exists almost everywhere – accessibility.” Vishal continued, “Besides, there are very few artists who get all the attention and most of the others do not have any platform – online or offline – to exhibit their work.” However, it was his chance meeting with an influential European lady who runs her own successful art venture that Vishal zeroed in on this idea. “She clearly outlined that the Indian art market has tremendous potential and there is no one market leader they can deal with. So I thought of capitalizing on this idea and establish ourselves as market leaders for Indian art.”

In spite of all the assurances that Indian art market has tremendous potential, Vishal was not convinced and decided to do a thorough research of the market before taking the plunge. He believes that in entrepreneurship, no matter how good the idea is, it is essential to do a detail research of the market before plunging in.

What then started was their extensive research of the market that lasted for nearly 3 months. They conducted surveys, organized focus groups, spoke to gallery owners and people in supply chain, and based on the positive feedback finally decided to go ahead with the idea. The next task was to observe what sells online and what not. The task was assigned to Preeti who went around and spoke to scores and scores of people and learnt what was happening deep down in the market. Then, the duo analysed the gathered information, discussed it and highlighted certain problem areas. Borne out of the necessity to address those challenges, the duo created an art auction technology platform.

In October 2013, Vishal and Preeti incubated their company Singhal Labs Pvt. Ltd. at SIIC, IIT Kanpur, with ArtZolo as their flagship product. Started with the underlying belief that art is for all and knows no barriers, ArtZolo is an endeavour primarily aimed at creating space for lesser known and emerging artists often ignored by the upscale art galleries and bolstering the exchange of art at global level. Through its highly-advanced and user-friendly technology features, ArtZolo promises to offer a unique digital experience to its buyers. Though the company was started with zero investments and was bootstrapped from the beginning, the highly competitive Indian art market with its perennial inherent problems proved to be a humongous challenge. The two significant challenges were procuring artists and then selling their artworks.

“Procuring first 50 artists was a gruelling task as there was a deficit of trust. What worked in our favour was that these emerging artists were looking for a space for expression along with the freedom to experiment

and our platform seemed ideal. Here the credit goes to Preeti who did the major chunk of work. I lacked the patience that was required to convince an artist to share his/her artwork. It was Preeti who went around and took close to 4 months in bringing artists on board. For the Indian artists, she had to sit down and create their profiles on our platform which was a painstaking work.” The entire process was anything but smooth. During it, she was rebuffed by many. While recalling one such incidence, Preeti said, “He was an excellent artist and I was quite interested in procuring his works. As agreed upon, I called him up to enquire the status. But he suddenly refused to collaborate and the reason he cited was that I was late by a day in calling him up. I tried hard to convince him but he did not relent. That sort of behaviour from an 18 year old completely shook me up.” Several such incidents took place but she considered them too trivial to even ponder on. She is of the opinion that the first rule of business should be to let go of your ego else your dream will die down soon. Focus and hit the bull’s eye. Perhaps, this is the reason that today ArtZolo has 500+ registered artists including a few from Russia, Indonesia, Canada, South America and the United States. The platform promotes the interests of the artists by allowing them to upload any number of artworks, sold and unsold, original and prints.

The next task was to get buyers for these artworks which required some brilliant imagining and rigorous marketing strategy, especially when a large section of Indian society continues to remain ignorant of art. “In India, there is a prevalent stigma which galleries have instilled that art only belongs to the elite. Most of the people approach us for cheap size posters. Through ArtZolo, we are trying to cultivate the art buying behaviour amongst people so that they can own and appreciate art,” Vishal said.

And how are they trying to achieve this seemingly impossible task?

Preeti was too quick to answer it. “First, we ensured that the price range is such that it makes it affordable for an average Indian to own and appreciate art. We offer close to 5000 artworks, both originals and prints, ranging between ₹ 799 and ₹ 7 lakh. Second, we are trying to woo buyers through our highly advanced technology features. The users can visualize an artwork against different wall colours and furniture as per their tastes. Moreover, the artwork metadata like art categorization, art type and subject makes it easier for buyers to browse through the collection.”

Vishal further added, “Besides, we permit buyers to bid for an artwork, if they find the listed price inappropriate. It is meant to ensure greater clarity and transparency in transactions.”

Despite all the efforts put in this direction, Vishal and Preeti think that it is and will continue to remain a challenge in coming years. But the thought does not intimidate them.

“Challenges are a part and parcel of an entrepreneur’s life. So why not to embrace them and find answers to our problems,” Vishal said in his usual carefree attitude.

The duo believes in making well calculated moves. Rather than initiating marketing and branding on a huge scale, they targeted a very niche audience through their social media networks like Facebook and Twitter. They ran several contests involving prize money which helped attract customers. As the two say, “We relentlessly pursued and connected with people who had even a slight inclination towards art.” The response was phenomenal. It boosted their confidence and served as an impetus to move ahead and expand their work. It is then that they decided to go for aggressive marketing and PR activity. Besides holding offline exhibitions, they are trying to get into niche art broadcasting channels to build their credibility. Recently, ArtZolo got a special mention in a leading international lifestyle magazine *The Genteel*. Subsequently over a period of time, they got covered by CNBC Awaaz, the Times of India, the Hindustan Times, India Today, e27, YourStory and many more.

Like most other entrepreneurs, the duo experienced failures in their approach towards business. But instead of brooding over it, they reanalysed their strategy and went for a change. “We initially chose a more B2B centric model. We listed ourselves on Snapdeal but got little success. Later we decided to change our strategy to a more of a hybrid model following which we started getting conversions in the B2C model. Moreover, we realised that the B2B model is time consuming and demanding. For instance, it takes around 9-12 months to close one deal with a high potential client. Also, it is very difficult to navigate through people and handle bureaucracy. We had lots of doubts but then after careful analysis we changed our model from B2B centric to a more of B2C. We are trying to become more active in spreading art awareness. On our Facebook page, we tell people how they can use an art piece in their surroundings,” said Preeti.

In a short span of time, ArtZolo has performed extremely well. In March 2014, the company recorded a turnover of ₹ 25 lakh. They have already availed seed fund of ₹ 25 lakh and are ready to rope in more investors. Their target is to touch ₹ 100 crores in the next five years.

Are they satisfied with their growth?

Vishal smiled and said, “Well!! Satisfaction should never set in because once you are contented you stop pushing boundaries. Our appetite has just increased. We have set a very high benchmark for ourselves. We want to scale up faster and go global and emerge as market leaders.”

In the near future, ArtZolo plans to collaborate with galleries that are either planning to go online or are on the verge of closure and plan to sell off their collections. Besides, it is keen to create an online art auction feature, hold online and offline exhibitions and expand its footprint, both domestically and internationally. “We do not want to be just a technology provider but a social impact creating organisation as well. We want to get into smaller initiatives like empowering artists. Our target is to capture rural artists and thus impact their lives,” the duo informed.

Vishal and Preeti are completely in sync with each other. Both have complementary skills that have helped their business to grow. While Preeti handles operations, content and artists, Vishal looks after technology and marketing. They do have their difference of opinions but they make sure that they are sorted out at the end of the day. It is their zeal not only to succeed but also to be the best in their field and leave their mark behind that will drive ArtZolo to new heights.

Tips for Entrepreneurs

- *Just enjoy what you are doing and immerse yourself whole heartedly in your work rather than fearing failures.*
- *MBA is not a must but a relevant background and domain knowledge is essential.*
- *Do your homework thoroughly i.e. study the recent trends and market accurately before plunging in.*



Reetesh Singh & Rajeev Sinha

Founders, Simplifix Automation Solutions, Evelta Electronics

In today's start-up scenario, mentoring from experienced professionals is one such golden chance that any young start-up would grab, if given an opportunity. However, Reetesh and Rajeev do not believe in seeking advices. They struggled for years before realizing that they were riding two different boats simultaneously and no advice could have rescued them. *"We call ourselves the 'experimentalists' who believe in learning from their mistakes and creating their own experiences. I am sure you must have heard of this famous quote, 'Take risks in your life. If you win, you can lead! If you lose, you can guide!'"* Therefore, it is a win-win situation and we have nothing to fear," says the experimentalist duo. Reetesh Singh and Rajeev Sinha are the founders of Simplifix Automation Solutions and Evelta Electronics.

Neither of them had a slight inclination for entrepreneurship while growing up. Rather, both hail from modest service middle class families where entrepreneurship is considered too risky a domain to venture in. “Fortunately, I was born in a family where people do not ask many questions. I did face some difficulty in convincing my parents for opting for Physics rather than Engineering but with slight persuasion they happily agreed. Since then I have never faced any resistance from them,” said Reetesh. Rajeev continued, “Other than my parents everyone tried to stop me from starting my company including my uncle who is very dear to me. I think people in Bihar prefer a stable and a secured job and have low appetite for risks.”

Reetesh and Rajeev’s paths crossed in 2003 when they joined the five year integrated Physics programme at IIT Kanpur. Not only they were neighbours in the hostel but also shared a common passion for technology. Rajeev’s roommate, Devanshu Verma, too became a part of the team. From first year onwards, they started participating in Robotics competitions and won several prizes. As they completed their third year, Reetesh and Rajeev decided not to go for internships and utilize that time in brainstorming ideas for business. Finally, the idea struck and they started working on methods for harnessing energy from sea waves. They succeeded in developing a model and filed a patent for the same. Till date, they are not sure if they were ever granted a patent but their work did get published in *The Gadget*. On that idea, the duo wrote a business plan and presented it in the IIT Kanpur Business Plan competition 2007. “We did win the competition but the plan was too complicated and the seed fund we had asked for was of the tune of ₹ 30 crores. Now, why would somebody give us such a huge amount and that too for a non-approved idea? The figure was unrealistic by any standards. We realised that along with passion it is essential to seriously think of the practicality of the idea as well before taking the plunge,” said Reetesh. By that time, they had already started conducting summer trainings on embedded systems for engineering students under the name BRiCS.

As they entered the fifth year of their programme, the duo came up with yet another idea. Reetesh came across a book by an Oxford professor *The Poor and their Money*, which talked about the lack of options for the poor to deposit their money in banks. That gave him the idea to create a machine that accepts money as less as ₹ 50. The duo managed to get some funds from Prof. Vyas at IIT Kanpur to work on the idea. For the rest of the amount, they applied for a grant under government sponsored Technopreneur Promotion Program.

Though the idea only partially succeeded, the whole process turned out to be a huge learning for them. “Instead of applying for ₹ 15 lakh funds, we wrote for ₹ 75,000 which was a big mistake as it was the bare minimum amount we would have needed. It was because of the lack of experience. We did regret it later.” In spite of the loss, they continued to refrain from seeking advice.

It was already February 2008 and soon they were to decide whether to start their own company or take up the lucrative job offers. Till then, the three had worked as a team. Devanshu decided to take up a job with Goldman Sachs, India. While Rajeev was determined of doing something of his own, Reetesh took some time to reach a decision. “Doing whatever I like is one of the major drives. A healthy and conducive environment is a must for me to work freely. I thought and thought and finally decided that if not a PhD then it has to be my own company.” This led to the birth of Simpliflix Automation Solutions Pvt. Ltd. The company was registered in October 2008 at SIIC, IIT Kanpur.

Simpliflix Automation Solutions works in embedded systems domain. It is aimed at providing automation-solutions and R&D assistance to the SMEs (small and medium scale enterprises). It develops technologically innovative products for commercial applications and customized products for clients. Its products range from hall sensors and nano-positioners to remote sensing devices and micro-controller based general purpose boards.

Though the company was started primarily with the aim of doing serious research related projects and designing new instruments like fake currency detector, it is the trainings under the brand name of BRiCS that made them popular and also financially sustained them. “Not many organizations offer such high calibre trainings in embedded systems design. We were at the beginning of this idea. Initially, 300-400 students participated in our trainings but soon the number rose to 1000,” informed Reetesh.

BRiCS was growing fast but soon it also proved to be their biggest challenge. The duo, besides conducting trainings, took up a few projects that needed intensive research and development. “We were simultaneously handling two different ideas. One was a pure technology intensive idea and the other was trainings which we were very comfortable with. Half of the year was spent in preparing for trainings and the rest half for R&D activities. And 6 months is too less a time for R&D work.” In spite of severe financial crunch, they did not ask for any help from their families and continued with the trainings as they had no other source of revenue.

Initially, the company witnessed a good growth. Between 2009 and 2012, they had 13 people working for the company. After two years, however, exponential growth and scalability became a problem. “Placements were a big problem. We ourselves were not sure as to what students would do after trainings and any training institute with no guarantee of jobs does not survive for long. Moreover, it was a seasonal business. Once the semester started, students did not come for it.” As BRiCS demanded major resources and attention, their other projects suffered severely thus hampering the company’s overall growth. “After reaching a certain position, we suddenly realised that we needed to shift our trajectory. But it was too late already. We were stuck with BRiCS. Neither could we backtrack nor did we find any buyers for the idea,” said Reetesh. Their biggest learning was to work on one idea at a time. With limited resources and manpower, it is difficult to work on different ideas in a full-fledged manner.

Of the two, Reetesh is more open for conversations. Rajeev is a reticent who perhaps can only talk about technology, his first and last passion. You question him about the marketing and sales aspect and he starts fumbling for words. “Rajeev is a hands-on person. He imbibed this trait from his father who worked in a subsidiary of Tata Steel. He is extremely brilliant in doing one to one interaction in his domain. While for me, it is a mix of passion and money that ignites me,” Reetesh quickly added. The two complement each other very well. While Rajeev chooses and leads the technical team, Reetesh manages the rest from writing proposals and collaterals to marketing and branding. However, both strongly feel that a clear cut demarcation is necessary to avoid chaos. Many a times they have difference of opinions but their friendship has never been affected. In technical decisions, Rajeev’s opinion is important and in marketing, Reetesh’s.

Marketing has always been the biggest challenge for them and they continue to struggle with it. Most of the projects that the company did were either given by the faculty or by other start-up companies. “In 2010 we tried working with some railway companies and were close to getting a contract of ₹ 1-5 crores but it did not work out. It was a severe blow again. Our marketing and branding strategies were not up to the mark. Besides, Kanpur posed several manufacturing problems for us.”

It was only after struggling for years, they realised that they were riding two different boats and no advice could have saved them. At that juncture, didn’t they think of giving up their dream and taking up jobs?

Reetesh smiled, paused for a moment and then answered, “Contrary to giving up, we have a new member with us. He is an IITK and IIMC alumnus. After completing his IITK programme, he worked for a few years in Deutsche bank and is now leading our e-commerce business. We needed somebody to join us and Abhishek turned up at the right moment. Moreover, he was our batchmate and a wingmate too for four years and therefore we three share a good relationship.”

A lot of investments had gone into Simplifix including the seed fund of ₹ 25 lakh. Therefore, to keep things rolling they thought of another idea – Evelta Electronics. Launched in 2012 with an investment of ₹ 20 lakh, Evelta Electronics brings a wide range of electronic components to the design engineers, industry and academia. The electronic components manufactured at Simplifix are also routed out through Evelta. This time Reetesh is sure that nothing can go wrong. “While doing BRiCS we got associated with more than 500 colleges and came across 1000s of students who would demand electronic components from us. We provided them from our own inventory. Then the idea struck us and we thought that through e-commerce platform we can reach out to a large audience.” Evelta is growing faster than Simplifix. In March 2013, Evelta’s turnover was ₹ 75 lakh and they are sure that in the next 5 years it will touch ₹ 5 crores mark. They have also started importing products from Singapore and Hong Kong.

What about Simplifix? Are they planning to shut it down?

“As of now we have no big idea that can take Simplifix to great heights. We do have good engineers working with us. We even have novel ideas but I think we, founders, are not pushing it hard. In the next 5 years, we will develop something in androids but it will grow at its own pace,” said Reetesh.

Although the scenario looks more promising now, they are facing a new challenge. While Simplifix is shifted to Patna, where Rajeev handles the day to day operations, Evelta is being handled by Reetesh and Abhishek from Mumbai. They are finding it difficult to coordinate and operate from two different places. What startles you the most is that in spite of the heavy losses and setbacks the duo seems cool about it. Rather, they are still upbeat about the future and are confident that they will overcome this challenge as well.

Tips for Entrepreneurs

- *MBA is not as essential as the industry experience is as the latter equips you with hands-on knowledge.*
- *If somebody plans to venture in this particular domain, make sure to have a strong team and generate sufficient finances.*

Ashish Agarwal

Founder, Innovative Embedded Systems



He is the founder of a successful start-up, serves as the Director of another start-up and has a doctorate degree in Electrical Engineering from IIT Kanpur. Yet, he labels himself a pessimist and shies away from offering any advice to other want-to-be entrepreneurs. Ruining over a few of his decisions that affected the growth curve of his company, Ashish says, *“The growth which my company has attained today could have been achieved two years back only and only if I had taken a few bold decisions.”* Ashish Agarwal is a 32-year-old entrepreneur who owns Innovative Embedded Systems, a company that offers end-to-end solutions in the fields of energy, transport and telecom sector. He is also the founder of Innovative Witech Systems and serves as the Director of Ingen Technologies.

Ashish never had any plans for his future but things just happened to him. As he says, “life has been a series of pleasant and unpleasant accidents for me”. While growing up in a Marwari business household of Dhanbad, Jharkhand, Ashish developed a vague ambition of running his own business one day. With time, however, it was sidelined by his deep love for the complexities of mathematical equations and he decided to pursue higher studies. As his hometown did not offer any good opportunities, he moved to Ranchi to finish his senior secondary school. “I come from a place which is very close to Wasseypur. If you have by any chance watched Gangs of Wasseypur, you can very well imagine what it must be like,” Ashish jokingly said. The school in Ranchi gave him the much needed exposure. It is there that he became aware of the presence of IITs and decided to appear for the IITJEE exam. He could, however, clear it only in his second attempt and thereby joined the B.Tech. programme in the Department of Electrical Engineering at IIT Kanpur.

Anyone would have rejoiced over and celebrated such a feat but not Ashish. Rather, he found himself struggling with a sense of mediocrity.

“Suddenly, I found myself surrounded by these brilliant achievers who had topped their schools and zones and simultaneously excelled in several extracurricular activities. On the other hand, I had always been an average student with no extracurricular interests. I considered myself too mediocre amidst them.” For Ashish, mediocrity acted as a motivator. Instead of sulking over his lack of achievements, he chose to work harder than the rest and outperform them in studies. Ashish did excel in studies but lagged behind the rest in building connects and networks. The first such realisation came when he was to apply for summer internships in his third year. “I have always been a very shy and a reserved person. So, unlike my batchmates who owing to their strong networking skills could secure internships at several places, I could apply for internships only at a few places. Finally, with great effort I managed to score an opportunity in South Korea but before I could even start preparing for it the professor informed that he had no funds available. So without funding I could not travel to South Korea and had to stay back in campus during summer vacations,” Ashish sighed.

The last-minute cancellation threw Ashish’s plans into disarray. But those three long months also turned out to be a blessing in disguise for him.

As Ashish was still figuring out his next move, he bumped into Prof. Sunil Jha, then a PhD student and 10 years his senior, in the institute's electronics laboratory. The casual meeting turned into an intense discussion that eventually shaped into an idea. Together, the duo designed an energy metering system for automizing the billing of electricity and installed it in a residential area within the campus premises. "We both were extremely happy after it got installed. It provided the consumers the advantage of checking their units of electricity consumption online," Ashish fondly reminisced. Though the idea could not take off as there were no buyers in the market, it won them the best technology award in the IITK Techkriti festival and also an invitation to start a company at SIIC. Eventually, Innovative Embedded Systems Pvt. Ltd. was born with the vague vision of indigenously building electronic products that are usually imported from China, Indonesia and other markets.

Before the duo could even register their company, they ran into financial troubles. "We were completely broke. We did not have even the minimal amount needed for registration. So we decided to take up a few service projects and earn some profits. Here, another IITK alumnus and our senior Mr. Anurag Aggarwal came to our rescue." Mr. Aggarwal, who then worked in Philips, gave them a project. The challenge was to develop a technology with wifi, GPS and Memory card features for PDAs (Personal Digital Assistant). Ashish and Sunil successfully executed the project and earned good profits. Finally, in September 2005 they formally registered their company and incubated it at SIIC.

Was there any resistance from family?

"I lost my mother when I was in class 6th. My father too passed away while I was in B.Tech. third year. After the loss, there was no one left to motivate or resist me from doing anything. Since then, I have lived my life on my inner instincts and taken my decisions independently."

Innovative Embedded Systems focuses on microcontroller based embedded design requirements in a broad range of wireless communication, data acquisition, device control and monitoring applications. The company's in-house capability to design complete software and hardware solutions together with its cost-effective high quality solutions has helped it build its credibility amongst customers. Started with zero investment, the company's turnover touched ₹ 1.5 crores last year. Currently, it employs 50 people with 35 based in Kanpur, 5 in New Delhi and the rest scattered across the country.

Ashish has attained the ₹ 1.5 crores mark after treading a long and an arduous path.

Soon after registration, the company bagged a prestigious project called the ‘Technology Mission on Railway Safety (TMRS)’. The project enabled them to not only develop a new technology in collaboration with the institute but also create a few by-products like GPS and GSM modems that were in huge demand in the market. The cash flow helped them to expand their bandwidth but to a certain limit. They hired semi-skilled and part-time interns but could never afford high-end resources. “The biggest mistake was not availing any funding assistance. We used our stipends to pay the salaries that were meagre and resulted in high attrition rate. It was only after 2008 that we could manage to pay decent salaries,” Ashish added ruefully. He thinks that his decision of not availing any seed funds severely hampered the growth of his company. The funds could have spared them from doing service projects and thus saving time and resources spent in those two years.

As Ashish struggled to sustain the company, he faced yet another major bottleneck. “Being a hard core technologist, I continued to focus on developing technology and neglected the other equally important aspect of business. For any company to run successfully, it has to have a strong sales and a marketing team. Most of the technopreneurs like me who are obsessed with technology fail to address the marketing needs thus slowing down the business.” For two years the company’s reach remained confined to the IIT Kanpur premises. It was only in 2007, as their financial bandwidth increased, the company started advertising its products in newspapers and online. This resulted in bringing greater visibility to the company and small projects of the tune of ₹ 15-20 lakh started pouring in.

As the company started making profits, Ashish decided to expand its operations. In 2008, he built a factory in Roorkee with an investment of ₹ 30-40 lakh not knowing that he would be closing it down soon. “It was a huge setback and we only were to be blamed. We were not pro-active in our approach. At that time, we just waited for clients to come and give us big projects. We also lost a few big opportunities that we could have tapped only if we were in touch with our clients.” Furthermore, that very year Ashish’s business partner, Dr. Sunil Jha, moved out of Kanpur and joined IIT Delhi. This led to more complications and difficulties.

While narrating these experiences, Ashish's tone was pessimistic. During the conversation, he had even called himself a pessimist and a not-so-successful entrepreneur. It is then that I wondered if the word 'success' had a different connotation for him. Ashish smiled mischievously and answered, "I was the first one in my batch to secure a job with Intel and the package offered was good. At that time, I had nobody to resist or advice me. So I decided to go with my inner instincts. However," he paused for a while and continued, "I joined the M.Tech. programme as a backup plan and later converted it into a PhD which I am still stuck with".

Does he mean that people with a backup plan are pessimists?

"Absolutely not but it was not a good decision. It is difficult to switch minds between running a company and carrying out serious research. Not to forget the daily errands as well. At some point, you fail to manage time. However, I was fortunate to be surrounded by people who supported me all throughout the way like my Ph.D. advisors, my sisters and my wife." Reiterating his point, Ashish emphasised later that one must focus only in one direction as it helps in attaining growth faster.

As Ashish continued to grapple with challenges, he started another company in 2009 called Innovative Witech Systems. In his second venture, he was joined in by his batchmate Sachin Rajput who had left his job with Intel. The focus was to design and manufacture in-house components used in GSM and GPS modems which are otherwise imported from China and Indonesia and have a huge demand in the Indian market. However, they could not succeed. "Sachin was facing severe financial problems. He tried to manage for a while but eventually gave up and left the company in January 2011 to pursue MBA from ISB. For a year, we manufactured a few hardware designs and tested them but the product could never reach the market. Presently, the company is lying defunct." Ashish does have plans of reviving the company provided he finds a right partner.

Of the several lows and highs that Ashish faced, the year 2011-2012 proved to be the lowest moment for him as the turnover of the company decreased to ₹ 60 lakh from ₹ 1.5 crores in the previous year. While sharing the reasons for the setback, Ashish looked a little sombre. "That year was difficult. I was facing some issues in my personal life owing to which I could not devote much time to the company. And by that time Sunil also had become a full time professor in IIT Delhi." As the drama unfolded in Ashish's personal life, his relationship with Sunil suffered too.

During that time, the company was working on a big project for BSES, a Reliance company based in Delhi. As Ashish's personal problems kept him engaged, he could not travel to Delhi for a meeting with the client. His unavailability irked Sunil and resulted in an argument. Ashish thinks that the differences between them had already started appearing the day Sunil moved to Delhi. But they became more glaring after this incident. Because of the lack of proper communication and unavailability of both the partners, the client lost its trust in the company and cancelled the project. Following the huge loss, Ashish realised that it would be the best for them to part their ways. Though the legal separation has not been amicable and is still in the process, things look more stable now. Ashish is greatly indebted to a few people who helped him sail through personal and professional crisis.

Since the separation, the company, as Ashish informed, has done well. The reason he cites is, "There is only one person to call the shots". In 2012-2013, the turnover again increased to ₹ 1.5 crores. The company is in an expansion mode and has set up support teams in Orissa, Andhra Pradesh, Mumbai, Delhi and Madhya Pradesh. Being a semi-consumer product, it needs a good support system. In the next 5 years, Ashish plans to focus more on sales and marketing, building customer relationships and hiring efficient workforce at multiple locations.

Besides managing his company, Ashish also serves as the Director of Ingen Technologies Private Limited. Ingen Technologies is a collaboration between Innovative Embedded Systems and Weather Risk Management. Throwing more light on the nature of the collaboration, Ashish revealed, "Weather Risk offers advisory services but it also requires hardware equipments. The founders realised that we both were using the same core technology that needs to be remodulated to generate different end products. Therefore, they suggested that we should collaborate and work together." At Ingen, Ashish handles the technology part and looks after design, manufacture and repair of products in fields. The rest of the work is handled by the two founders.

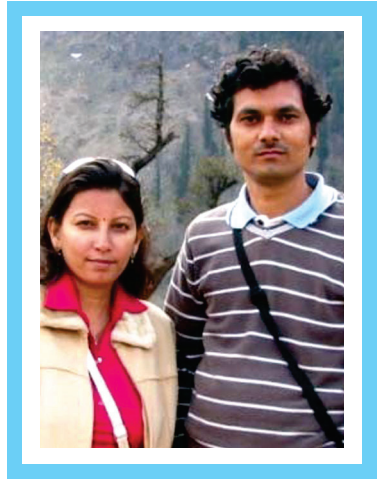
Ashish may call himself a pessimist but in my opinion he is extra cautious when it comes to playing his moves. He might have made a few mistakes but it is his determination, perseverance and unflinching faith in his abilities that have steered him to continued success.

Tips for Entrepreneurs

- *If you know that you can do well, then you will be successful provided you have patience.*
- *Planning is very crucial. You cannot run a business without a proper plan, team and office. There are many entrepreneurs who increase their resources – building plush offices, hiring high-end resources, taking loans – without any solid plan and fail to generate revenues. Therefore, take a risk and increase your bandwidth only when necessary. Otherwise, it will backfire.*

**Ashutosh
&
Amita Vyas**

Founders, Apecegen Technologies



Although their company still hasn't achieved the targeted growth since its inception in 2010, the husband-wife duo is confident of giving a tough competition to their competitors in the near future. *"The gestation period of a biotech company is very high. From manufacturing a concept to bringing a product into the market, the complete cycle is a time-consuming and a tedious task,"* says Ashutosh. *"I think the first click is all that matters. Once we get our first product validated by animal studies, opportunities will start pouring in and it will surely happen in next 5-6 months,"* adds Amita, his better half. Ashutosh and Amita Vyas, the founders of Apecegen Technologies, are first generation bio-entrepreneurs. Pushed by their altruistic streak, they dream of discovering and developing cost-effective biotechnology based healthcare solutions for people.

While growing up in different towns of Madhya Pradesh, both Ashutosh and Amita aspired to become successful entrepreneurs. They do not remember when and how the idea seeped into their lives but it is all they ever wanted to do since their college days. “For very long it just remained a vague dream. But as I grew older it started becoming clearer and then one fine day I just left my studies in the middle to pursue it,” said Ashutosh.

Ashutosh had just joined the Ph.D. programme at IIT Kharagpur when he decided to take a career detour. He realised that academics could not have prepared him for the challenges involved in a start-up and therefore left his PhD incomplete to gain a few years of industry experience. “Academics accounts for only 10% of your preparation as an entrepreneur and the rest 90% you learn from industry. It can teach you the theoretical aspects but industry equips you with the practical ways of dealing with problems,” justified Ashutosh. Armed with a Masters degree in Science, he took up a job with a pharmaceutical company. For the next 13 years, he worked with several highly reputed companies including Cadila Pharmaceuticals, Panacea Biotech and Avesthagen. As Ashutosh was moving an inch closer to his ultimate destination, Amita too was dreaming of her venture. “My family moved to Indore where I completed my MCA (Masters in Computer Applications). Thereafter, I took up a job of a computer lecturer in a college and simultaneously started working on my plan of opening a software company.”

As Ashutosh and Amita were still caught in the middle of their different business ideas and plans, destiny played its role. The two tied the knot in an arranged marriage in 2002. A year later the couple had their first and only child. It was an interesting time of their lives as both continued switching jobs and racking their brains for out-of-the-box business ideas. In her usual effervescent style, Amita said, “I was always interested in opening a software company and had my business plan ready. But by the time I decided to take an action it was very late. There was already a lot of saturation in that area.” The duo later thought of several other ideas but could not finalize any one. Finally, they zeroed in on biotechnology sector owing to their exposure to Biopharma and IT fields. “Initially, I thought of doing pharmaceutical business which would have involved importing the pharmaceutical products and marketing them in India. But as I started working with the research and development department of biotech companies, my inclinations became more well defined,” Ashutosh explained.

It was while working for a Bangalore based biopharma company that Ashutosh's business idea finally took a concrete shape. Four of his patents got published giving him the much needed push and he decided to venture into a purely science based company. "In my last stint with the biopharma company, I handled all the aspects involved in a complete life cycle of a biotechnology product starting from development to manufacturing and associated regulatory approvals. I was also a part of core management group that helped me learn how to run a business."

Ashutosh suggests that a few years of industry experience is a must for anyone interested in starting a venture in biotechnology domain. It equips you with all the practical ways of dealing with challenges and also exposes you to all the aspects involved in manufacturing drugs/molecules.

Ashutosh was keen to venture into an area where both his biopharma experience and Amita's IT skills could be put to best use. In spite of being aware of the fact that biotechnology sector is a highly capital intensive, competitive and a challenging segment, he took the plunge and in March 2010 launched Apcegen Technologies Private Limited. They raised the initial investment of ₹ 35 lakh by selling their properties in Indore and Bangalore.

It was not an easy decision for them especially as their son's future was at stake.

"Shifting from a 3-bedroom apartment to a one-room rented accommodation was not easy. So far, we had lived a very comfortable life. My son's studies were also disturbed. But we both were sure that we never wanted to live with a regret of not taking our chances and trying it out," Amita said candidly. Their families stood by them and provided their unconditional support as they embarked on their entrepreneurial journey.

After registering the company's office in Bangalore, the duo began looking for a place to incubate the company. They went to two other IITs before settling in for IIT Kanpur. "At the other two IITs, there was no administrative clarity on how we could have accessed their labs. Their lackadaisical attitude disappointed us and forced us to drop the idea to incubate at those institutes. Finally, we decided to explore IIT Kanpur. Though we both were averse to the idea of moving to Kanpur but the help offered by IIT Kanpur Incubation Centre was irresistible," said Ashutosh. In April 2011, they incubated their company at SIIC.

Apcegen Technologies is a fully integrated innovation driven Biopharmaceutical company that aims to discover, develop and

manufacture human therapeutics to combat life threatening diseases like Arthritis and Cancer. The company's main offerings include Biobetters, Biosimilars and a novel therapeutic antibody. Two of their molecules are completely novel to the Indian market. In less than three years, the company has succeeded in developing three technologies - novel antibody against cancer, antibody fragment against arthritis and recombinant protein against arthritis - each worth ₹ 10 crores. As of now, for a disease like arthritis people rely on pain killers. But the actual cost of biological treatment of arthritis is ₹ 5-10 lakh which is beyond the reach of a common man. With the technology developed by the company, the cost of treatment will be reduced by 10%.

With risks, challenges come as freebies. In spite of the fact that Indian pharmaceutical sector offers a huge potential, the paradox remains that funding is not easily available particularly for the clinical trials of the drugs. Contrary to his shy and reserved nature, Ashutosh talked about it openly. "Our products are ready and we want ₹ 1 crores for animal trials of those products. But nobody is interested in investing at this stage. It is only after the animal trials are done that the companies would like to invest." However, Ashutosh has succeeded in availing a small financial assistance of ₹ 12 lakh and ₹ 50 lakh from two government agencies but there has been a delay in the release of funds. They have also managed to get some funds from BIRAC for animal studies of the alternate therapy molecule. "We applied for our second round of funding from DST. It did get approved but it has almost been 2 years and still money has not come our way." Their experience with the Indian venture capitalists also has left them disappointed. "Indian VCs need quick returns on their investments whereas the gestation period of a biotech company is very high. Moreover, I believe that most of them shy away in investing in the initial stages of clinical trials as it involves high financial risks and uncertainty." However, Amita has a different opinion. "I think that Indian VCs' past experiences of dealing with other biotech start-ups have not been good. As a result, we are facing the brunt of it. Moreover, in India degrees matter a lot especially from a good foreign university. With a Caltech or a Stanford tag, funding is guaranteed." There was a hint of unhappiness in her tone. She still probably rues over Ashutosh's decision of leaving his PhD incomplete.

Besides finances, Ashutosh opined, the other important aspect that needs diligent handling is the marketing of products. Being a highly competitive domain, it is often difficult for a start-up to penetrate the

market. Ashutosh thinks that one of the smart ways to overcome the barrier is by forging an alliance with an established Pharma company. Apcegen Technologies is in talks with two established pharmaceutical companies for a possible alliance wherein Apcegen will become their technology partner and they will become the marketing partner for the products developed by Apcegen.

Ashutosh remains unfazed by the obstacles but not Amita. At times, she gets disappointed and thinks of switching to a full time job with a fixed salary. “I really want us to settle down and become more stable as my son is growing up. I often complain to Ashutosh ‘ke itna time lagta hai kya. Do saal ho gaye hain (does it take so much time? It has been two years; show me some results)’. We should quickly market our products and bring in the cash flow.” There are times when she regrets that they should have taken the plunge only after financially securing themselves. Every time she loses her hope, Ashutosh comes to her rescue and assures her that things will soon fall in place. Biotechnology domain is not like the IT field where you can rewrite the code. Here, if an experiment fails then everything has to be done again. Therefore, one must have tremendous patience.

Ashutosh’s assurances to his business partner are not baseless. Ashutosh’s future strategy is ready. Though the company has not experienced any financial success so far, it has managed to achieve a technical breakthrough. Each of the three molecules developed by the company is worth ₹ 10 crores. If he fails to raise funds from VCs in the next few months, he plans to sell his technology in the market thus bringing in cash flow. They will use it to repay loans and will further invest it in their planned projects for developing new products. Their focus area, in future, will be biochip based therapy for diseases like cancer and arthritis. Besides, they are soon to start animal studies of alternate therapy molecule for treatment of Rheumatoid arthritis, Psoriatic arthritis and other autoimmune disorders.

The Indian Pharmaceutical sector, according to Ashutosh, is growing at the rate of 25% every year and there is a lot of scope for more entrepreneurs to enter into the field. When asked for any advice for future entrepreneurs in this domain, he reiterates that a few years of industry experience is imperative. Being a trained biotechnologist with more than 13 years of industry experience, Ashutosh is adept in multitasking. His vast experience with bioprocess development, project management, technology transfer, budget handling, strategic planning, resource allocation, etc. has come in handy.

So far, their journey has been incredible and they have each other to thank to. Though their personal and professional lives have blurred, they are highly comfortable in being each other's company for 24/7.

“We understand each other very well. We often have differences of opinions but we ensure that they are discussed and resolved amicably. Moreover, our duties are clearly divided. I am the technical expert and she handles all the administrative and fund raising work. Her skills with software testing and algorithm writing will be put to greater use in future when we go for biochip based products,” Ashutosh shyly said. “But he is the one who easily loses his temper,” Amita was quick to add. Despite their hectic schedules, they still take time out to travel with their family and friends.

Ashutosh is serious, introvert and taciturn; Amita is jovial, outspoken and chatty. In spite of their contrasting personalities, the duo is completely in sync with each other. They are ambitious and have set a high target for themselves --- to turn the company into a ₹ 100 crores venture in the next five years. They are confident that their technical expertise and their team's strong analytical skills will lead them to success in manufacturing and delivering cost-effective healthcare solutions.

Tips for Entrepreneurs

- *An entrepreneur must have zeal for challenges and courage to strive every day.*
- *To be a good entrepreneur you must be aware of the daily nitty-gritty of running a company.*
- *One must build a strong network of people as connections help.*

Sandip Patil

Founder, E-Spin Nanotech



He spent his entire childhood under the grim shadows of extreme poverty, hunger and despair. Yet, when time came to choose a career option, he chose the uncertainties of the entrepreneurial domain over the comforts of a high paying job. The reason, he cites is, *“It just served as another test of my endurance. The more you endure, the better are the results.”* Sandip Patil is a 34-year-old entrepreneur with a doctorate degree in Chemical Engineering from IIT Kanpur. From a 10/10 sq. ft. kutchra mud house in a small remote village in Maharashtra to the upper echelons of the business world, Sandip Patil has travelled a rough road pockmarked with many lows than highs. Yet, he continues to live life on the edge. At the time when most of his colleagues were going abroad for post-docs, Sandip decided to start his company. In 2010, he founded E-Spin Nanotech that is dedicated to manufacturing low-cost nano-fibre units.

Born on 21st June 1981, Sandip grew up in a village called Pimpri, tucked away in Shindkheda district, Maharashtra. The village lacks all the basic amenities including schools, health dispensaries, post office, roads and transport. Seventy five percent of the village population constitutes tribals and the rest 25%, as Sandip claims, belongs to his clan of Patils -- a fact he is extremely proud of. Sandip's parents worked as contract labourers tilling the land and milking the cows. Despite working hard in life, they never succeeded in making the ends meet. The family had to live through extremely harsh times. While revealing these details, Sandip became slightly pensive. "There were days when the whole family including my two younger siblings would go without meals. Festivals had no charm for us. We spent countless Diwalis without sweets and crackers. Life meant nothing but day-to-day survival. No dreams, no aspirations..." But, Sandip dreamt of studying.

Sandip's dream did come true when his maternal uncle took Sandip to his village where Sandip completed his primary education. He still vividly remembers those days. "I was an average student and was more inclined towards playing cricket. I think that spoilt my image in the village. My friends' parents considered me mischievous and barred me from coming to their homes. They were scared that I might spoil their children as well," Sandip said laughingly.

Determined to study further, Sandip returned to Pimpri and enrolled in a school 1.5 km away from the village. By then, his mother had started a small Kirana shop to sustain the family. Being the eldest son, Sandip had to bear a few responsibilities. Mornings were spent in school, evenings in the shop and nights amidst books. In spite of being completely unaware of the opportunities that existed for him after schooling, he continued to strive hard for excellence. He returned to his uncle's village to complete his senior secondary education. There too he faced several challenges. The only available mode of transport between the village and school was a local bus that left early in the morning and returned late at night. He spent several hours in travelling that fatigued him out but he was consumed by an intense passion to succeed and do well in life. He made judicious use of the time and eventually passed his 12th exam with above average marks.

"That day I learnt my first lesson. Nothing is impossible to achieve. Dream big and pursue with determination. Success will be yours."

Afterwards, Sandip joined the B.Tech. programme at UDCT Jalgaon at North Maharashtra University. The years spent in college had a life-long impact on Sandip. After growing up in harsh conditions, everything seemed to be more than perfect to him. There were times when he felt embarrassed in front of his batch mates as all of them hailed from good backgrounds. While he was still busy adapting to his new life, he suffered another blow.

He flunked first year. To save himself from further shame, he returned to his village. Looking back in time, Sandip reminisced, “This did not surprise anyone in my village as they never took me seriously. But during all those hard times my parents supported me and believed in me. I did farming for three months but that too did not interest me. I, then, decided to go back to college and work hard. Within next six months, I cleared all my papers with high scores. That changed my life forever.” The incident proved to be a turning point in his life. It boosted his morale and strengthened his belief in his abilities. Since then, Sandip has never looked back in his life.

Sandip believes that he would have succumbed to pressures and failures had he not been guided by his teachers and professors at different junctures in his life. They helped him take crucial decisions that made him who he is today. “I come from a background where completing even elementary education was a big dream. I had nobody to look up to. Therefore, I made it a habit to interact with my teachers and professors. I always sought their advice and followed it. I am greatly indebted to them as it taught me an important lesson – never hesitate in sharing your dreams with others and seeking their advices as it may take you to the right path.”

After completing his B.Tech., the lure of taking up a job was very strong and irresistible for Sandip. However, on the advice of his professor, he joined the M.Tech. programme at the University of Baroda. It was there that he met Prof. Dewekar, the Head of the Department, who advised him to finish his second year of Master’s at IIT Bombay. As Sandip reached IIT Bombay, he realised that this remarkable feat would serve as a benchmark for him in his career. IIT Bombay widened up his horizons. He decided to apply for universities abroad for higher education. But, his poor communication skills stood in his way. Sandip admits it without any qualms. “Actually, my communication skills were very poor and my professor felt that it would severely affect my studies. So I applied in other IITs and finally got through two IITs.” In 2006, Sandip joined the PhD programme at IIT Kanpur under Prof. Ashutosh Sharma.

What is striking is that in today’s highly competitive world where parents do not think beyond designations and pay packages, his parents did not show any resistance. “They have always given me complete freedom to pursue my dreams. I am lucky to have been blessed with such a supportive family.” Indeed, he is!

The same year Sandip got married. His wife, Jagruti, comes from a village which is 60 km from that of Sandip’s. Their families have known each other for a long time. She holds a bachelor’s degree and on Sandip’s insistence is studying for a Master’s course. The more he spoke about his life partner, the more amazed I was at his far-sightedness and maturity.

“If I had married someone more urban, she would have certainly faced problems in adjusting with my family and my background that I come from. I do not believe in adding more complications to an already complicated life. Moreover, I wanted someone who could have taken care of my parents and leave everything behind and go back to the village, if the situation demanded.”

Is she willing to?

“Completely, she is fond of village life,” Sandip said with conviction.

While Sandip was busy with his PhD work, another chapter waited on the sidelines to unveil itself. His colleague’s failure to design and assemble an E-Spin machine turned out to be Sandip’s biggest achievement. The task was assigned by none other than his PhD advisor, Prof. Ashutosh Sharma. As Sandip successfully completed the task, he realised his core strength and key interest area --- transforming technology into products. That triggered his interest in nano-technology products and soon, after months of thorough research, he found that India has a huge market for nano products. Somewhere the dream of starting his company had seeped in him. However, resisting peer pressure was not easy.

“My friends were applying for post-docs and I also felt inclined to do so. But I was sure that teaching was not my cup of tea. Whenever I am in a dilemma I speak to my seniors as they are more experienced. In this case, I spoke to Ashutosh sir and he advised ‘Have one goal, focus on it and with full conviction go for it’. This was an important lesson for me. Therefore, I decided to start my company.”

By then, Sandip and I had developed a rapport. The ease with which Sandip was conversing with me and sharing his story left me perplexed. Was he trying to over-simplify things? Didn’t his parents ever demand anything from him? Didn’t he ever think of providing comforts to his parents? What about his kutchra mud house? As I was still lost in my own thoughts trying to think of my next question, Sandip interrupted.

“I was aware, as well as anxious, of the hardships my family had endured. The only thing my parents, in particular my mother, ever asked for was a big house. They were waiting for me to take up a job and earn a good salary. I told her that to have a bigger house she need not wait for my job. I borrowed some money from my friends and hired a contractor on the condition of paying him in monthly instalments. Our two-storey house was ready in a few months. That day I felt very relieved and even proud of it.”

In 2009, Sandip became a father. As the family responsibilities increased, his wife became anxious and suggested him to take up a job. But Sandip’s eagerness had reached new dimensions. The only answer he had for his

wife was, “Do not worry. In the worst possible scenario, we might have to go back to our village and start farming. Nothing worse can happen.” Sandip believes that future is a mystery. Both good and bad can happen. Therefore, do not let fears of failures stop you.

Sandip owes his success to Prof. Ashutosh Sharma, his PhD advisor and mentor. “Sir changed my life completely. He gave me complete freedom to pursue my research and start a company as well. It must have been a difficult decision for him. Besides, he also provided me financial support for my first project. Whatever I am today, it is because of him.”

With an aim to start a company Sandip started taking projects. His first project fetched him a profit of ₹ 1.5 lakh. His second project with IIT Hyderabad earned him a profit of ₹ 3 lakh. But he was unaware of the nuances of running a company. Therefore, he approached his friends who then ran a company under the name BRiCS, with the aim of collaborating with them. As he waited to hear from them, he came across SIIC. Finally, with the centre’s aid, he registered E-Spin Nanotech Pvt. Ltd. in 2010. He could, however, focus full time on his company only from 2012 after wrapping up his PhD thesis. By then, he had already floated his website and had successfully completed four major projects with international clients in the US, Saudi Arabia, Denmark and Egypt.

E-Spin Nanotech is dedicated to research and development of high quality, low-cost nano-fibre units. Besides, it also manufactures nano-fibre products that have a wide range of applications. In the next six months, the company plans to start the manufacture of bulk scale fibres for pollution control masks, water filters and air filters. The major clients include all the research labs in India. Last year, the company’s annual turnover was ₹ 80 lakh.

Sandip started the company with a unique agenda in mind. “Right now, most of the nano machines are imported. My aim is to reduce the imports by designing more efficient and cheaper products with excellent back-up services. I am even trying to bring together the other companies on one platform and work towards this goal.” He is not developing any new technologies but is modifying the existing ones to develop better products.

While establishing his company, Sandip faced several roadblocks and the biggest was the location factor. “I had no workshop of my own and I had to outsource the manufacturing part. Kanpur does not have any good manufacturers who can provide good quality components. So I had to go to Delhi to look for a one. I could locate one but there too I had to compromise on quality.”

What about his aim of producing the highest quality products?

“Yes, initially it was difficult. But then you have to find solutions. The quality was around 80% and the rest 20% I had to compromise. But I guarantee my clients that if the machine doesn’t work then I will design a new machine for them. Fortunately, it has never happened,” grinned Sandip.

The second major roadblock was human resources. It is difficult to find trained and highly motivated workforce in Kanpur. Here too Sandip’s far sightedness came into play. “I believe that if the employee lives near his/her family then he works hard and even saves money. In this way, he is not easily attracted to other companies. Moreover, I want to create career opportunities in tier II and tier III cities. So I decided to hire young people from the city and train them.” Today, the company has seven employees four of whom are permanent.

In the next 5 years, Sandip dreams of turning his company into a public limited company. His target is to increase the number of workers to 50 and annual turnover to ₹ 10-50 crores. He plans to invest the money into the company’s R&D facilities and to venture into the healthcare industry. Sandip’s breakthrough work in Nanotechnology has won him several accolades and honours, and coverage in popular media. He also won Rajeev Motwani Young Entrepreneurship Award 2014.

Being an entrepreneur is a 24/7 job and is highly demanding. Your personal life can get disturbed. But it didn’t happen with Sandip. “My work is not a one day job. It is there forever. So I try to maintain a balance in my professional and personal interests.” Besides running a company, he loves spending time with his daughter and manages to find time out for his other interests of travelling and watching movies.

Today, Sandip is a celebrity in his village. He is highly respected and is invited to marriages and functions as a chief guest. How does it feel?

“Well, people in my village often tell my parents how lucky they are.”

Any plans of expanding his Kirana shop?

“The shop is still up and running and is very dear to the whole family as it sustained us during our hard times. At one point of time I was interested in setting up a bigger shop in the neighbouring village but that would have put many small vendors out of business. In my opinion, it is unethical and I am myself aware of the day-to-day hardships that people face there. So we dropped the idea.”

Sandip remains unscathed by the harshness of life. He has seen the worst possible conditions in his life and has managed to rise above them. In spite of achieving success in life, he remains deeply anchored to his roots. And it is his unswerving belief in him that breeds his fearlessness.

Tips for Entrepreneurs

- *One must create his/her own path and should not bend under peer and society pressures. Parents also should allow their children to experiment and explore. There is nothing to lose.*
- *If possible, create business opportunities in tier II and tier III cities. That is the need of the hour.*
- *Far sightedness in businesses always helps. Clearly analyse the situation and then take decisions.*

