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# Hot Start-ups: 'Believe and take the leap of faith'

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**Hot Start-ups: 'Believe and take the leap of faith'**




Established in 2011, Bionivid Technology, located in the happening start-up hub of Bangalore, is a genomics and informatics start-up, jointly cofounded by Mr Madavan Vasudevan, Mr Rohit Nandan Shukla and Mr Hitesh Goswami.

Mr Madavan is a qualified microbiologist-turned-bioinformatician; His partner Mr Rohit is also a qualified bioinformatician and a certified programmer; and Mr Hitesh is a neurobiologist with a fine business acumen. All three of them make a perfect ingredient for raising a hot bioinformatics start-up.

**Bottlenecks in Big Data**

The company's key focus is on providing informatics solutions for data generated through high throughput genomics technologies including Microarrays and Next Generation Sequencing (NGS).

Well, what drove the trios into their entrepreneurial venture? "It is purely a 'Team, Trust, Talent and Temperament' combination that drove us together. 'Time' was also a critical factor as affordability and acceptability of genomics data was at the right place during our initiative," voiced Mr Madavan, who is the director of research and operations at Bionivid.

When most of the major genomics service providers in India were moving towards establishing high-end genomics laboratory-based services in producing heaps of genomics data, Bionivid was able to identify the bottleneck in Big Data, and establish a foray of solutions.

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**Lack of PhDs**

"Our age, inexperience and lack of PhD degrees was a major bottleneck when we started off initially. Many of our detractors had written us off stating we were too young, inexperienced and unqualified to provide such high-end and scientifically profound services. It was quite a challenge to overcome all the criticisms and hurdles and focus on working hard towards success," recalled Mr Hitesh Goswami, who oversees the company's business strategy and planning.

Funding was another major challenge faced by the company since genomics industry was quite niche and futuristic.

"Not many investors and angels are aware of the fortune and promises ahead in this industry," Mr Hitesh pointed.

For most part, the entrepreneurs managed borrowing a small sum of money from their families, primarily to rent an office space, and setting up minimally required computing environment.

"Our 100% YoY growth helped us in securing a soft loan from government agencies like National Science & Technology Entrepreneurship Development Board (NSTDEB) who promote start-ups," expressed Mr Rohit, who is the director of training and development at the company.

**Focus, defocus**

Though the company didn't face any major setbacks ever since its inception, it had to focus and defocus its verticals routinely due to varying market demands

"This led to disproportionate growth of our verticals namely services, products, training and consultancy. Rather, this phenomenon led us to identify and add newer verticals like hardware and databases to increase the sustainability and valuation," opined Mr Hitesh.

**Clientele**

Bionivid's clients' are majorly from iconic academic research institutes like Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Indian Institute of Science (IISc), CSIR-Institute of Genomics & Integrative Biology (IGIB), International Centre for Genetic Engineering and Biotechnology (ICGEB), University of Delhi - South Campus (UDSC) and many more.

Talking about clinical genomics, Mr Madavan added, "Industrial research involving genomics and informatics is puny at the moment. However, huge initiatives are already under way aggressively with respect to clinical genomics. We are looking forward to cater to the upcoming clinical genomics segment that will help us achieve one of our goal of taking informatics from bench-to-bedside."

**World's genome informatics kernel**

In the future, Bionivid is looking to expand its core IT capabilities in terms of product development.

"We have initiated a series of activities related to development of innovation-driven products and solutions that might revolutionize the genomics data analysis and research," remarked Mr Rohit.

The company also dreams to make India as the most preferred genome informatics kernel of the world.

"We have initiated discussions with major Universities in the country to collaboratively offer first-of-its-kind 'Genome Informatics' course, which will help us in developing human resources to cater to the futuristic needs of the industry and academic research," held Mr Hitesh.

**Innovation vs Protocols vs SOPs**

According to the company, innovation and science go hand-in-hand due to heterogeneity.

"At Bionivid, we routinely motivate and encourage our team to explore and add new dimensions to genome analytics, rather than working on defined protocols and SOPs," mentioned Mr Madavan.
Due to its academic inclination, Bionivid actively collaborates with many scientists, both in India and abroad.

"We are actively mentored by eminent scientist and a Shanti Swarup Bhatnagar (SSB) awardee Prof K V S Rao. Heading our scientific advisory board is leading Epigenetics scientist and SSB awardee Prof Tapas Kundu. We are also the genome informatics partner for UDSC-MAC (University of Delhi South Campus, Microarray Facility) led by Prof Amita Gupta," highlighted Mr Rohit proudly.

**Tax exemptions**

Mr Hitesh feels that in order to boost start-ups and fuel their growth, government and its agencies should come up with limited period support schemes offering immunity from routine taxations, filings, statutory mandates and corporate regulations, which will increase focus and ensure start-ups are established successfully.

There are countries like Malaysia which have implemented lucrative schemes for biotech start-ups.

For example, 10 year income tax exemption, from the day a company declares statutory income.

Thereafter, another 10 years of reduced tax rates, i.e., 20% (current corporate tax rates are 25%).

Also there are import duty exemptions for equipments and key raw materials, and sales tax exemptions.

**Personalized genomics era**

The genomics market is said to be slowly and steadily moving towards personalized genomics in India.

"However, it is too early and sluggish now. Nevertheless, in another decade personal genome sequencing is likely to be affordable and could become a common procedure and prescription," stressed Mr Hitesh.

With this kind of personalized application of genomics for clinical use, the amount of data that will be generated and its storage, analysis and data security will require the use of efficient cloud based solutions.

**Manpower crunch**

There is a huge requirement for manpower with specialized genome informatics skillsets.

"There is a huge market in India and abroad in terms of services like resource, staff augmentation and recruitment. There will be a lot of demand for such service wherein human resource with specialized genome informatics skillsets are provided on a contractual or permanent basis," commented Mr Rohit.

Getting such human resources in genomics data analysis is a challenge. "Even if you manage to hire and train, with the scarcity of such skillset all around the globe, they get exported abroad with lucrative positions and remuneration, which is not affordable today for both Indian academia and industry," stressed Mr Hitesh.

Also, there is a huge gap in the pace of innovation directed towards generating terabytes of sequence data, and as well as the computer hardware innovation towards processing this huge amount of computational intensive data.

Mr Madavan stated, "There is a huge market potential for developing processors different from that of current CPUs towards reducing the time significantly for memory intensive process, maybe something in the line of GPUs."

**Incubation**

Mr Hitesh strongly believes in the start-up culture in Bangalore. "It will take some time for any other city to come closer to the start-up culture of Bangalore and Hyderabad. We don't see it happening in the near future. Maybe Pune could be the city that can rise up to the ranks," he said.

Bionivid is supported by Kalinga Institute of Industrial Technology's (KIIT) TBI, in Odisha, led by Dr Mruthyunjay (Jay) Suar.

Mr Madavan advised that it is ideal to house a start-up inside a technology business incubator (TBI) which has a genuine agenda to promote entrepreneurship.

**Start-up stress**

How does the trio beat and battle the start-up stress? "Start one activity and complete with perfection. Even if results are not profitable you learn perfection," said Mr Hitesh.

Mr Madavan stressed on avoiding working on weekends. "Have enough time for leisure and rejuvenating. Look out for social gatherings where you get to know and learn from others' experience," he advised.

"Travel to different places and meet all kinds of people," Mr Rohit ends.

**Bionivid's 5 killer strategies for scaling up:**

Ã¯â??Â§ Believe in yourself and take the leap of faith
Ã¯â??Â§ Focus on developing new strategies for customer development process.
Ã¯â??Â§ Engage your customers, listen to their problems and demands, evaluate their feedback, and provide the right training
Ã¯â??Â§ Your employees are your first customers. Spend significant time in coaching, mentoring, engaging and training them
Ã¯â??Â§ Identify and initiate overlapping verticals

**Bionivid's Milestones:**

Ã¯â??Â§ From a team of 3 to 30 in less than 4 years
Ã¯â??Â§ 2 offices (Bangalore and Bhubaneswar)
Ã¯â??Â§ Contributed to the first insect genome sequence published from India (by Dr Raj Bhatnagar, ICGEB)
Ã¯â??Â§ First company in India to deploy hybrid approach for genome assembly of a larger genome, and publish
Ã¯â??Â§ Contributed to 35+ publications in international peer reviewed journals

**On the horizon at Bionivid:**

Bionivid is coming up with 3 distinct products which it believes will revolutionize the genomics research industry:
Ã¯â??Â§ **Genome Stations** - Bespoke computer hardware solution for handling NGS data supported with customized, validated and calibrated analysis pipeline
Ã¯â??Â§**SQ-IT** - A sequence analysis workbench which will give user the ease of commercial NGS analysis software with power and flexibility of the open source tools and algorithms
Ã¯â??Â§**SQ-DB** - A very unique sequence data management query and retrieval solution for NGS users

**Bionivid's Entrepreneurial secrets:**

Ã¯â??Â§ If you believe in your business idea and hard work, then plunge into it full-time. Part-time effort and safety net doesn't work.
Ã¯â??Â§ Manage finding right partners who are equally inclined, committed and share mutual trust and share a common vision. Avoid starting a company all by yourself.
Ã¯â??Â§ Be passionate about your work, and not let bottlenecks and setbacks be excuses for not performing. Avoid succumbing to daily routines and compromised lifestyle.
Ã¯â??Â§ Try to bring your human touch to your work. Be it making a report or meeting a client, or running a program or an algorithm. If you are fully involved, then it creates an aura of human touch which reflects in the quality of produce.
Ã¯â??Â§ Understand the criticality of routine cash flow.
Ã¯â??Â§ Be flexible.
Ã¯â??Â§ Do not get complacent with your success. Continuous learning and improvement is the key to any successful business.

**Want better start-up visibility?**

Ã¯â??Â§ **Happy Clients** - We do everything possible to ensure every client requirement is met in terms of agreed deliverables. It is important to clarify and document what you cannot deliver at the very beginning. There is no better brand ambassador for your company than a 'Happy Client'.
Ã¯â??Â§**Credibility** - For any start-up credibility building is critical for establishment. Engaging with top notch scientists in the domain is critical to build credibility. Translating the solution for the research problem into a peer reviewed publication is a vivid proof of building credibility.
Ã¯â??Â§**Conferences** - Crowd presence indicates sustainability and establishment. Clients would love to see you at different events. This means you are doing well and also fosters high level of trust.
Ã¯â??Â§**Multi-Geographical Presence** - Establishing work space and teams in multiple geographic locations also increases visibility and better sustainability. We have expanded our operations from Bangalore to Bhubaneshwar in less than 4 years of establishment.
Ã¯â??Â§**Dynamic Sales/Marketing Team -**Â It is important to have a highly motivated team on the move who understand your company's culture and DNA, and are able to translate that to each and every client they meet, which spreads like wild fire.

Ã¯â??Â§ **Social Media** - If used in a right way, can do wonders. However, has very limited scope when it comes to niche market.