Technology based startups pivoting for sustainability: case study of startups

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Abstract. The startups around the world in their early-stage needs to sustain and grow. Global entrepreneurship monitor report revealed that many startups faced problems in the early stage and only a few have moved ahead. Pivoting is the decision startups should understand and should know when to pivot. Indian startups face a set of challenges. Entrepreneurship and startups are recent phenomenon in the country. It is only the last few years’ people started to move from job seekers to job providers. Starting a venture is tough were every country sees more failures. This paper is a result of study done by interviewing ten startups out of which two of them were constructed as case studies. It has been carried out to identify the issues and challenges faced by startups. The study is focused on the key issues the startups are facing and the challenges they have faced in the startup journey. The interview has been showcased as case studies. The preliminary findings suggest that the startups have found it difficult with their initial ideas, their monetary performance was not considered, but the way they changed as per the need has been presented. These case studies can be used by startups to understand how to reconstruct there venture ideas and avoid early barriers, interesting challenges that have been faced by these startups has been presented.

1. Introduction
Startups are human institutions creating innovative products services with sustainable business models under extreme uncertainty [1]. Startups in the early stages must assure strategic planning in finding new ideas and allow the firms a comparative advantage with the existing competitors. Strategic planning should aim at designing of new action strategies for products, marketing and finance, product identification, and alternative generation are crucial elements in strategy formulation [2]. All startup ideas will not have the equal potential for success, potential depends upon business innovativeness, degree of technology obsolescence market size and speed to market [3] the success of the business and key metrics helped in achieving the success has been studied and is reasonable in evolutionary terms [2]. The availability of expertise individuals is in limited number it is hard for the startups to find domain experts [4].These studies are with evidence of experiences the organization has come up with, but they lack the study of these companies during the early phase of startup [5].

Startups in India have received major attention because of their contribution towards economy and society. It started to see more employment opportunities through technology startups,
innovation and creativity in generating impactful solutions by providing sustainable growth. Startups are becoming more crucial in transforming the communities and the life style of the people.

The Indian startup ecosystem has evolved dynamically over the last two decades. Pivot is a change in the business idea or business model. There are only few studies made on startup pivoting. Introduction of technology business incubators and accelerators have started to result in creating startups especially in major cities in India like Bangalore, Mumbai, Hyderabad, Ahmadabad, and the National Capital Region (NCR) and also around some smaller cities. The study has been carried out by interviewing ten startup founding teams. The study is about how these startups started and the challenges they faced during their startup journey. How they have overcome the early stage barriers and how the present ecosystem has helped them to overcome the barriers. All the startups are tech startups related to Health and IT sector; Semi-structured interviews were done with startup founders of Telangana State, India and have been presented as case studies. As most of the startups have faced similar kind of challenges, two startups journey has been presented as case studies which have covered most of the challenges faced by these ten startups.

2. Literature review

Today’s startups are turning out to be major source of innovation by employing emerging technologies in creating products and business models [6]. The uncertainties of the market poses many challenges to the startups, competition is driving startups towards failure leading to self-destruction within two years from inception [7] [8]. Startups started to take unknown experience and risk to identify new opportunities [9]. Startups are exposed to competition and thus face immense pressure from the markets [10]. Startups founders believe that they can predict the future better than others, without considering their basic assumption. “Instead of going into the venture with a broad hypothesis, they commit in the ways that don’t allow them to change.” [11]. Startups lifecycle has three stages bootstrapping stage, seed stage and creation stage. In bootstrapping stage the entrepreneur initiates his own resources to develop his idea and convert it into a business. In Seed stage entrepreneur’s looks for support from entrepreneurial eco system and in creation stage the startup is converted into a company [13]. In the context of startups failure is a positive side to look at and it is the mantra which make the startups succeed from these failure learning’s [13]. The success of startups in the early stage depends on the understanding of pain points and providing the right solution to the customer [14]. Startups in the initial stages face the problem of raising the debt capital because of educational constraints, risk constraints, socialization constraints and discrimination constraints [15]. Startups need time to provide returns on their investments; the investors are looking at fast growing startups to invest [16].

2.1 Challenges - Building and Scaling an Indian Startup

The challenges faced by Indian startups are resource management. They begin with essentials resources such as recruiting the professionals, availability of the required technology, availability of required funding to start the venture, lack of customer awareness, lack of existing market knowledge. Lack of proper market research and failing in identifying the problem to solve is another important challenge faced by the startups. Funding and access to funding is another major barrier for the startups, while not every startup needs external investment in their initial stages but in the later stages of their startups they need support financially.

2.2 Challenges - Products to Market and Customer Acquisition

After successfully launching the product or service the startups face the challenge of taking their product into the market, there is a very little opportunity for these startups to sell their products as they lack reputation and familiarity.
The competitive landscapes which allow big firms which are more capable in dealing with the bureaucratic regulations are not allowing these startups to penetrate into the market. The customer’s perception towards a product and service is very different that it is hard for the startups to shift their attention towards their products and services.

3. Case Studies

3.1 Case study - the mooshic labs story: Joginder’s dream
Indian health care sector is in a desperate need of service providers, it is extremely important for the Indian healthcare sector to get assistance in the form of technology. Technology based startups in health care are becoming more crucial, Indian being one of the largest populated country needs the access for health care at affordable cost and wide spread of availability for the people. The health care startups started to view Indian market from opportunity perspective and Pulse active station is one among the health care startup.

3.1.1 Background:
Current problems in getting vitals – Are there solutions in developed countries:
A vital sign is a specific measurement of a basic body function that is routinely monitored by the personal medical professional. Body Pulse rate, blood pressure, respiratory rate, weight, and temperature are 5 vital signs recommend tracking on a regular basis. Most of the people due to their occupational commitment ignore to check these vital signs on regular basis. The measurements of these vitals provide input to doctors in detecting the early symptoms of health issues. The measurements of these vitals differ from individuals depending upon their age. Access to the devices which measures these vitals and can generate accurate report which can be easily understood by the person and doctors will help.

3.1.2 Entrepreneurial journey of Joginder
A student of Delhi Public School, Joginder pursued his B.Tech at SRM University, Chennai (2000-2004). Initial dream was be in Civil services, but later joined Syspro Automation Pvt. Ltd. as System Developer at Chennai, where he developed software for automation of pump-houses for seasonal rivers in rural and remote locations and developed software for automation in Indian Oil Refinery, Guwahati. Later he moved to United Arab Emirates to work with Heefa Kitchen Equipment Trading as Business Development Manager to take care of Sales for steel equipment for industrial kitchens and hospitality industry.

In 2006, he started Vajra InfraTech specializes in ITES automation for the logistics and asset management sectors and following are the indigenously developed solutions for logistics and asset management. Vajra InfraTech is an ISO 9001:2008 certified IT engineering and consulting System Integration and Solutions Development organization headquartered in Hyderabad, India with offices in Delhi, Tamil Nadu and Gujarat and associates in Africa, Europe, Southeast Asia, Middle East and USA. As a serial Entrepreneur, he eventually started The First Meal.

The First Meal Kitchen serves 10,000 healthy and economical breakfasts every day. The list of customers they serve has big educational institutions such as Indian School of Business, National Institute of Fashion Technology along with corporate offices like Deloitte Consulting, S&P Capital IQ, and residential societies such as Ramky, Tranquil Towers etc. Recently, “we have also been featured in the Indian Express, Deccan Chronicle as well as in Times of India for our innovative offerings” said Joginder. First Meal has been successfully acquired by Hello Curry in a Cash plus Equity Deal. The reason for handing it to Hello curry was lack of funding.

3.1.3 Pulse active station
The pulse active station network is a connected network of IOT-based Smart kiosks known as the
Pulse Active Stations http://www.getpulse.in. This Pulse Active Station is designed to generate report of the individual user which includes 21 body parameters and indicates risk for 12 lifestyle diseases. These active stations are designed user friendly and can be placed in a public area with high footfall such as Theaters, shopping Malls, Hospitals, Railway and bus Stations, Airports and other centers.

21 Body Parameters: The body parameters include physical dimensions of human body which includes Height, Weight, BMI as well as cardiac health parameters including Blood Pressure, SPO2 and Pulse Rate with Body Composition Analysis for Body Fat percentage, Mineral Content, Muscle and Bone Strength and Body Water content.

3.1.4 Product Development

User Testing: Made for perfect User testing by considering all patient empatetic factors

Indianization: Blended cultural factors of Indian health conscious and fitness segments

Test and refine: Before coming out with final product they refined it quiet often. They tested and refined till it understood customer empathy. The problem they identified was customers were finding it difficult to find time for there medical checkup.

3.1.5 Problems faced & Lessons Learned

a. Lack of designers in Hyderabad
b. Problems with different models (B2G – government not paying – he says he wanted to thank them)
c. He went to Venture capitalists but could not crack them with his concept. One gentleman, known in investors circle suggested Joginder to start with his money, even “if you have One rupee in pocket and once you demonstrate the product”, VC’s would get convinced to fund on it, in fact, it worked. At present it has reached to 4 hundred thousand customers.

3.2 Case Study - Do the best: Santosh Thota dream, Sharing your review is my idea

Santhosh Thota studied in a Government High School up to his 10th class and got free admission in Intermediate at Khammam. He said he has written eamcet a common entrance test for engineering, due to the lack of knowledge regarding existence of NIT’s and IIT’s he joined Bachelor of Engineering in local private engineering college after he cracked the Eamcet entrance test. Out of curiosity and interest he has joined in a coaching institute for programming. That
turned his way of thinking, he addicted to Programming language “If you are passionate about something the whole world helps you” this is what he says. He doesn’t have sufficient amount of money to pay the coaching fee, the institute noticed his interest and enthusiasm, offered him the coaching for a nominal fee of Rs 500. In the final year he made an attempt to get admission in to IIT but could not make it. He has worked for six months in marketing field as his family required it. After that he joined in an institution for Gate coaching. Prepared for Gate and got admission in IIT. There the admission interview had changed his scenario regarding how one need to look into a subject that is in Research oriented way. He cracked oracle interview in campus interview which came up with 12 lakh package per annum, the interview was held at 4 ’o’ clock in the morning and this was the first interview which has been faced by him. He was having an idea to start a venture, but his seniors suggested him to get industry experience first. He worked with oracle for two and half years with a dynamic team. The team was handling big data analytics. As a part of his job he has written one algorithm which has saved 320 dollars for the company per year. This information was authenticated by the VP through a mail. This was the turning point of his entrepreneurial journey.

3.2.1 Entrepreneurial journey of Santosh

He has to quit Oracle to start working on his idea. “Sharing your review” was his idea http://www.smatbot.com. At that time face book was having the things to share memories but not reviews, after a week he realized himself that this idea is not going to work. He started working with a team of 3. He was the founder and other 2 were B. Tech final year students from IIT Guwahati. He had spent almost 2 months in his flat after he quit the job for developing an algorithm. Aspect based sentiment analysis which means a review about aspects. For example if a coffee house customer writes a review about their experience like, Ambience is worst but likes the coffee taste.

The reviews analyzed by Microsoft API or IBM Watson give neutral mixture of positive and negative reviews. The engine which Santosh developed goes aspect based analysis to next level of sentiment analysis. Ambiance wise it is bad and coffee wise it is good. This gives more insights for the users about what is working and what is not working. “Over a period of time we were analyzing the reviews of mobile phones and restaurants” but this has not worked we need to think beyond says santosh.

3.2.2 Challenges faced

When he went for funding he was the only founder of his startup. This made the investor to think about their investment on his startup. Still he managed in convincing the investors and was able to get his first funding of INR 5 lakhs for first time. Being a techie he doesn’t know what business is and how to do it. Accelerator is one program which made him to know what ABC in business is and how to approach in business. Mobile phone reviews for B2C was a losing idea, as their efforts were not been seen by the customers but manufacturer and e commerce were being benefitted. Business works with contacts, a pain point solution they are looking for. As they Could not crack in mobile and restaurant and it was Time to raise investment for next level they approached Zee national lab Mumbai and they came forward to invest 20 lakhs, Their view point was engine is very powerful but what went wrong was, it needs to have more customization. They worked with business news channel, culture machine- top YouTube aggregator, and crew machine. One step their product is shaped they use to get reply from their clients, that their priorities have been changed and their entire effort was lost. Running short of funds, every day new challenges started to think back. To focus on sales they hired two sales persons by paying 1 lakh per month and 80 thousand per month, where they paid 1.22 lakh for 4 members of technical team, but the sales remained the same and they have to say good bye to sales team.
3.2.3 Turning point
Zee national lab mentors based from US Silicon Valley mentored them in shaping up the product and that’s how they built “Smart Social” Smart social is an Artificial Intelligence assistant technology which automates social media marketing activity. It helps the business in creating every day trending content in social media, “it might be any business Social media page has to keep posting content at least twice a week. The smart social creates the content, which impresses audience and helps the business by taking key words and creating post and put it on smart social page”. The client can click the content and post the same on their social media page. It automatically attaches the hash tags which goes crazy.

They want to be on the single platform for the small and medium enterprises. Their value proposition is post at least two quality content post every week on social pages along with the promotional posts. They have tools at their smart social such as access to 1 million images which can be used for content creation, leveraging the existing content. Subscribers can use YouTube videos, where they can watch videos related to their business. Automation in viral messaging, fan base building, and fan based posting and following likeminded people by brand. It will auto respond to customer comments. Engine will identify type of comment positive comment will be replied by thanking and asking them to download the app and look for more information. Negative comments will also be addressed. Smart social makes content 24/7 monitoring the comments.

3.2.4 Revenue model
User can avail smart social services through subscription. Subscriber based revenue model and the pricing is 5000 per month and annual package for 3000 per month. Other services offered are creating the promotional package including creating and hosting social page for 8000 per month. If the user want to subscribe for this service for one year and the cost charged will be 5000 per month. Spending for marketing of Smart social is zero and every day by using smart social we are getting two sign ups across the globe and face book is one among them.

4. Discussion
Identifying and understanding the right way to offer solutions is important for the startups to sustain. The startups after creating the market viable product have to test and based on the responses from early customers need to make decision. The startups should focus on value for which customers are willing to pay. A good business model will help the startups to overcome issues like capital, identifying key partners and finding right customer segments. A right mix of focus and breadth of services is necessary for success. Entrepreneurial intention is the strong force which is making these entrepreneurs to face the challenges [17]. Pivoting from their initial ideas made these startups to continue in the race, startups in there early stage should be with the mindset to pivot. In the case study made the entrepreneurs where with a mindset to pivot. The two startup founders have experience in there startup fields which made them to adopt changes very quickly; they were educating themselves in their fields. Both the startups have launched with their practical experience, what they thought to do has no proper recourses available. They have to do everything by themselves like pulse active station found difficulties to find designers; it was hard for them to find guidance regarding the material which needs to be used for their pulse active station. Finding the right mentor in their domain is a challenging task for the startups, as they are finding it difficult to get suggestions and guidance. This made the startups to invest their own experience and learning’s in making necessary changes required to their startups which made them to spend lot of time. The other issue these startups faced after launching their products and services into market are finding the customers; there is a need to build an environment for startups to find their customers.
5. Conclusion
The case studies reveals that in spite of government taking initiation to promote startup ecosystem, the fact is that there is a scarcity of mentors, centers which can guide the startups in early stages. Building environment, which influence the activities of production and activities related to performance, needs to be structured. The cases discussed here are all startups followed to tap the untapped market. It is observed that Technical assistance for startups is the major concern for tech startups. It is very much essential to provide technical exposure to the startups.

The startups face initial challenges in the area of design, marketing and mentoring assistance. Initial market opportunities for the startups is a big challenge, established firms and Government should provide the opportunities for startup in getting there first customer. Tech startups face challenge to meet the product customization as the requirements of the clients and customers are ever changing. There is a scarcity of research firms which can provide assistance in conducting market research and customer research for startups. Clearly both the startups have faced the challenges mentioned above and were successful in finding their way for a sustainable business.

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