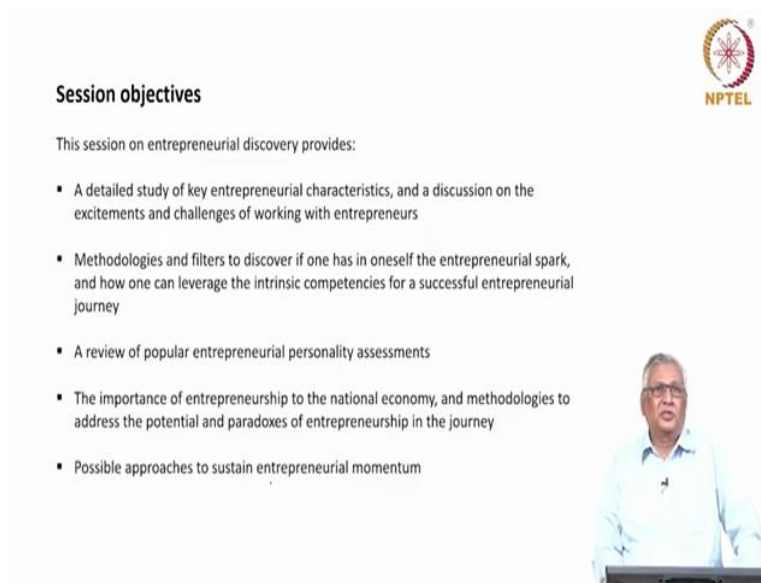


Entrepreneurship.
Professor C. Bhaktavatsala Rao.
Department of Management Studies.
Indian Institute of Technology, Madras.
Module-02.
Entrepreneurial Discovery Part-1.

Hi friends, welcome to the session on entrepreneurship. This time we will concentrate on entrepreneurial discovery.

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The slide is titled "Session objectives" and features the NPTEL logo in the top right corner. It lists five objectives for the session on entrepreneurial discovery. A video inset in the bottom right corner shows Professor C. Bhaktavatsala Rao speaking.

Session objectives

This session on entrepreneurial discovery provides:

- A detailed study of key entrepreneurial characteristics, and a discussion on the excitements and challenges of working with entrepreneurs
- Methodologies and filters to discover if one has in oneself the entrepreneurial spark, and how one can leverage the intrinsic competencies for a successful entrepreneurial journey
- A review of popular entrepreneurial personality assessments
- The importance of entrepreneurship to the national economy, and methodologies to address the potential and paradoxes of entrepreneurship in the journey
- Possible approaches to sustain entrepreneurial momentum

The objectives of this session are in terms of 5 factors. First, we would like to study in detail, the key entrepreneurial characteristics and a discussion on the excitements and challenges of working with entrepreneurs. All of us will have at some point of time an opportunity to work with an entrepreneur. Even if we are not entrepreneurs, we will have opportunities and I would like to detail a bit. Secondly, we will also think about the excitements and challenges of working with entrepreneurs.

As part of the entrepreneurial self-discovery, we require certain tools and methodologies to discover if we have the entrepreneurial spark in us, that is covered in the second module. Thirdly, we will see a number of personal assessments which are possible in this entrepreneurial area. Then we talk about the importance of entrepreneurship to the national economy and the various methodologies to address the potential and usefulness of entrepreneurship.

We will also talk about the paradoxes which are prevalent in the entrepreneurship. Finally, we will talk about possible approaches to sustain entrepreneurial momentum.

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Session 1 Recap: Entrepreneurial Journey

Every firm would have been an entrepreneurial venture or a start-up when it started; success being with the right product at the right time in the right manner

- **The initial journey** – a management task with two major stages
 - ⇒ Function Level : Planning, Organising, Resourcing and Execution
 - ⇒ Product Level: Ideating, Prototyping, Testing, Validation and Commercialisation
- **The three key drivers in the entrepreneurial journey**
 - ⇒ Organizing for Talent
 - ⇒ Resourcing for Growth
 - ⇒ Product Development
- **Three fundamental ways of entrepreneurial journey**
 - ⇒ Market Expansion and Segmentation
 - ⇒ Digital Reinvention or Disruption of Basic Processes
 - ⇒ Technological Transformation of Basic IndustriesArtificial Intelligence (AI) powered transformations could have a deep impact, going forward
- **Indian examples of the entrepreneurial trinity**
 - ⇒ The Creators (establish and grow businesses)
 - ⇒ The Preservers (consolidate and nurture businesses)
 - ⇒ The Destroyers (restructure and divest businesses)
- **Vision-Strategy-Execution triad vital for entrepreneurial success**
 - ⇒ Vision (set the purpose that endures over time)
 - ⇒ Strategy (lay down the pathway with corporate and functional plans)
 - ⇒ Execution (implement based on action plans, metrics and timelines)



Before we plunge into the entrepreneurial discovery portion, let us look at what we covered so far. In our sessions on entrepreneurial journey, we looked at a few factors. The first was on the initial journey. How does an entrepreneur start his journey through his entrepreneur firm? We looked at the 2 ways of doing that which are both intertwined, one was at the corporate level or the functional level and the second is at the product level.

We looked at the stages involved in both the aspects, at the corporate level, we said that we got to plan, we got to organize, we got to resource and we got to execute. At the product level, we said that we had to ideate, we have to develop a prototype, we have to test the prototype and then we had to validate the prototype and finally, through an iterative process reach a stage where we can successfully commercialize.


We also said that in the entrepreneurial journey, we have 3 critical parameters, which are more difficult than the rest and therefore, which are more important than the others. One was the organization for talent, second is resourcing for growth and thirdly product development. Then we talked about the manners in which an entrepreneurial firm makes its mark in the world market place. We said that there could be market segmentation and expansion at one level, we could be capturing of the emerging markets at another level and thirdly creation of totally new markets, which we again looked at from a technology point of view.

We said that market expansion and segmentation takes place largely with conventional products and technologies but execute in a superior fashion. We said that the available process, available products could be digitized and therefore can be reinvented. We also said that the basic industries themselves can be completely transformed by bringing new technologies. Then we also said that all entrepreneurs are not the same.

Some are very good at creation, that is establishing ventures and then growing them. Some are good in the next stage, which is preserving and nurturing the enterprises and some at times are good at even destroying, because at times divesting and restructuring of enterprises is important for you to become lean and then become fit to go forward further. We also said that like with established companies, a triad of vision, strategy and execution is important.

Vision sets the overall purpose, strategy sets the plan and execution gives you the metrics and timelines by which you can measure yourself. So, with this background, we will look at how potential entrepreneurs can discuss themselves as entrepreneurs.

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The triggers for entrepreneurial quest

Typically, the seeding of entrepreneurial quest in a person starts with an internal churn in the person across several dimensions. Some of these are:

- a firm conviction in one's own technical and managerial competencies, *and/or an identification of a clear market need for a new product or service*
- a disliking to be a part of a paid job system *and/or a liking to make one's own destiny*
- a disenchantment with a slow (even if steady) growth in income from the professional services rendered by the individual, *and/or an allure of capitalism in terms of building a successful private company to a wildly valuable public status*
- dissatisfaction with retiring upon reaching a prescribed age and moving into a nondescript state *and/or the satisfaction of leaving a lasting institutional legacy*
- a revulsion for working for someone else's satisfaction *and/or a fascination for converting one's own idea into a working scheme*
- a nationalistic fervour that a new national solution is necessary to fight the exploitation of the market by the current incumbents, *and/or a fervour for doing one's bit for social and national transformation*

In some cases, it could be all of these triggers as well. In all the cases, however, a belief in one's competencies is vital



Now, everybody has different objectives and goals in life. For example, as you go through the student phase, some people would like to become a sportsman or sports person, somebody would like to be a theatre artist, somebody would like to be an engineer, somebody a gardener, somebody wants to be a producer of movies. So different people have got different quests in their life, as you may say, some would like to be writers, some would like to be journalists.

So, this is little independent of the education which we go through. Why does that happen? Because either by genetic disposition or through family upbringing or through the influence of friends and relatives, we got certain role models which we develop in our system, therefore, we get that trigger. Quite independent of that, as we go through our educational journey or even as we go through our experience system, we will get certain triggers which mould this quest for being an entrepreneur.

Now, I have given six ways in which the entrepreneurial quest comes into our system. And again, you will see that there are two aspects of it, one, a sort of negative aspect, and second, a positive aspect, these 2 act as pairs. For example, the positive aspect in the first trigger is that we have got lots of confidence in our own technical and managerial competencies. And then we also see a clear need for a product or service which uses those technical and managerial competencies.

So even if you have got a lot of technical competencies, if you do not see a market opportunity or a product opportunity, we are unlikely to be an entrepreneur because we can't be an entrepreneur just for competency's sake, we got to be an entrepreneur because we want to set up a business and we want to make some wealth created out of that. Therefore, there is a pair here.

The second aspect is that we do not want to be part of a paid job system, because we do not want this 9-to-5 working system we want to have in a way create our own destiny. So this disliking to be part of a 9-to-5 job system is paired with a liking to make one's own destiny. So somebody who says that I should be in command of my destiny is likely to be more an entrepreneur than a job seeker.

Thirdly, some people are very ambitious and aggressive to go forward in life, some people will say that no no I would like to earn as much money as possible and but retire at 40, I mean different people are mad different way. So, dislike, disenchantment with a slow, even if it is a steady and secure growth in compensation, coupled with the allure of capitalistic wealth making in an entrepreneurial system. This again kind of combines to say that yes, you should be an entrepreneur.

Some people say that, okay, this 30 year tenure or 40 year tenure and then retiring after that does not really appeal to me, I do not want to be kind of lost in the chapters of the history. So I would like to set up something which is my own legacy, my institution, so those people also

would like to be entrepreneurs. Then some people have got a lot of disengagement, to take orders or to take instructions, they say that I want to be completely my own boss, which is slightly different from charting your own destiny.

This is kind of a little personalized way of looking at things. Therefore, he says that I have my own way of doing things, I do not want to listen to anybody. I will rewrite the rules as per my wishes. So, such people also become entrepreneurs. Lastly, some people are fired by a nationalistic fervour, they say that India is having so many issues, and we need to contribute.

Like when we talk about today, plastic not being used, somebody may say that I should contribute to this national endeavour of banning or removing once a time use of plastic, therefore, I will come up with some technologies for that or people may talk about waste minimization or environmental treatment or finding a way in which there could be charging stations, which are capable of charging batteries of higher power.

There could be many ways in which people could have could be fired with nationalist fervour, in some cases, this could be a combination of all of these things. But underlying all these kinds of triggers, is that a belief in one's competence, that yes I can do it.

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The slide displays three case studies. At the top left, the text 'Three cases follow...' is written. In the top right corner is the NPTEL logo. The first case is Thyrocare, described as 'World's largest thyroid testing laboratory', with an image of a medical testing machine. The second case is NIRMA, with an image of a product box. The third case is KENT Health Care Products, with an image of a water purifier. A small inset image of a man in a light blue shirt is visible in the bottom right corner of the slide.

Now, we will talk about 3 cases which we will briefly cover. Again, as I said in the previous session, there is nothing right or wrong about it, and we will look at the positives of what people have done.

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The case of Dr. Arokiasamy Velumani, Founder of Thyrocare

- Dr Velumani was a shift chemist for fourteen years in a small pharmaceutical company in Coimbatore
- While at work he realized the powerful role of sophisticated analytical biochemistry in fast and accurate medical diagnostics
- He also realized the prevailing market need for safe, fast and precise blood sampling, testing, analysis and reporting in a diagnostic scenario of small standalone testing centres in India
- He decided to become an entrepreneur leveraging his analytical chemistry skills, and established Thyrocare in 1993 as an entrepreneurial venture; the firm soon became a leading diagnostic firm, with a very successful public issue
- Thyrocare pioneered a business model of pan-India decentralized blood collection and centralized blood analysis which ensured high processing volumes and speedy throughput
- Deploying sophisticated bio-analytical equipment, automated handling, testing and reporting processes, agile supply chain, and ISO compliant systems, he made Thyrocare a pioneer medical diagnostics chain in India



We will talk about Dr. Arokiasamy Velumani, who is the founder of Thyrocare. He was a gentleman who was an analytical chemist. He worked as shift chemist for 14 years in a small pharmaceutical company in Coimbatore. And analytical chemistry is that part of chemistry which uses sophisticated instrumentation to characterize chemical compounds. And that is extremely important to make sure that the pharmaceuticals are produced to the best possible standards.

And when we talk about medical diagnostics, it is also analytical chemistry, except that it is a little more of biochemistry, which was involved in this. So, while at work, he noticed the powerful role of sophisticated analytical biochemistry which he possessed in fast and accurate medical diagnostics.


At that point of time, 20 years ago or so, what we had in India were many moment-stop kind of small digital diagnostic services, where possibly people were taking blood in kind of normal glass pans and then looking at it and they were not interconnected, they were a standalone. Some were good and some were very normal, ordinary.

So, he saw a need in the marketplace for fast, accurate, high throughput, high volume diagnostic services, which can do with one simple sample of blood, a whole number of diagnostic tests. So, he also started that looking at the poor knowledge of thyroid deficiency or thyroid malfunction. So, he named his company as Thyrocare and started his entrepreneurial journey.

And that was probably the first big on diagnostic chain and it was very well received in the marketplace, it had a very successful public offer. But then he also pioneered a business model of decentralized collection and centralized processing.


Which means that he has perfected the art of reaching out to the households, he perfected the art of close proximity to the customers locations, he perfected the agility of supply chain, and he centralized the high technology throughput so that he would be in a position to provide fast, accurate and very quick reporting. So, this is one case, where based on the competencies he could set up some very good venture.

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The case of Dr. Karsanbhai Patel, Founder of Nirma

- During the 1960s, the multinational company Hindustan Lever Limited (HLL) held a virtual monopoly in the home detergents market
- In 1969, Dr Karsanbhai Patel started Nirma as he was convinced that HLL had a monopoly of only high priced detergents which had to be perforce used by middle and low income consumers for want of an alternative
- Dr Patel formulated, manufactured and marketed his Nirma detergent as an economical option; Nirma was an instant and runaway hit with India's vast middleclass
- Dr Patel demonstrated the typical entrepreneurial characteristics of creativity, passion and gumption to take on a multinational behemoth with a product that struck a native chord
- He also was modern in thinking, deploying modern marketing techniques - almost unleashing a marketing blitzkrieg with 'Nirma girl' as the product mascot
- Nirma became a much-referred case study in business schools as reflective of Indian entrepreneurship



We all know about Nirma. There was a time when Hindustan Lever, at that time it was Hindustan Lever not Unilever. The company was completely in domination of all household detergents. And they were highly priced because there was not much competition. In 1969, Dr. Patel started Nirma, because he believed that the Indian households do not have a lower cost version. So, he saw the types of kitchen cleaning at that point of time.

One was the detergent based lever style of dishwashing and then the very traditional of sand-based or very traditional way of kitchen vessel cleaning. He said that I will get something which is in intermediate. But it was not technology per se in this venture, it was more an ability to market a new product which appealed to the native section of the population but indulge in high level of marketing, so you are able to stand up to the multinationals capabilities.

So, he demonstrated the typical entrepreneurial characteristics of creativity, passion, and also gumption, that means guts, to take on a multinational behemoth with a product that struck the chord in the native population. It was also modern in thinking because just because the product was not really that high technology, he did not satisfy himself with the normal marketing techniques.

He deployed modern marketing techniques, he created icon, the Nirma girl and really used saturated marketing on the various media channels including television. As we all love it, Nirma became a much-referred case study in business schools as reflective of Indian entrepreneurship.

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The case of Mahesh Gupta, Founder of Kent

- Mahesh Gupta, an IIT alumnus, who founded established Kent Systems, was a mechanical engineer who experienced the need for pure drinking water when his family members fell ill due to contaminated water
- He noted that available water purifiers relied on ultra-violet technology that kills bacteria but does nothing for other impurities
- Mahesh leveraged his core competence in instrumentation to incorporate reverse osmosing to remove undesirable dissolved impurities while retaining good minerals
- A core pillar was patenting the technology developed in-house to retain the competitive advantage
- Kent reflects a case of starting the venture in a garage with manufacture of a handful of units and successfully scaling up to a leading scale today
- It was also a case of supportive family ecosystem that encouraged innovation and entrepreneurship



Then we have other case of Kent. We all knew from the last several decades, the purity of water has always been an issue. So, the first group of water purifiers were based on ultraviolet technology, which generally kill the germs, they were very good at killing bacteria. That didn't mean that the water was indeed pure. Water had lots of dissolved, undissolved impurities, they also carried lots of trace minerals, trace metals, which are not very good for the body system.


And I covered earlier that many times entrepreneurs set up their journey, because they themselves have experienced a problem, like we think of Red Bus, where they had problems in booking the tickets, so he said that why not I use technology for aggregation and then have a bus ticketing system like we have the railway ticketing system.

Similarly, we have this self publishing company called Notion Press. The founders had the difficulties in publishing their book when they wanted to publish their book. And then they said that this kind of normal editorial cycle and approval and non approval and then improvement systems, take years and months at times, and therefore, why not we have a self publishing business as something which appeals to this kind of budding authors.

So, sometimes when we experience certain problems, we feel that as potential entrepreneurs we can solve those problems. So, this gentleman had issues of illness in the family attributed to the contaminated water. He being a mechanical engineer, he said that let me figure out how I can solve it. So, he looked at the ultraviolet issues, and they said it does only bacteria killing, so why not I come up with additional filters, which can really remove the dissolved undissolved impurities.


At that point of time, Reverse Osmosis was more for industrial use, like in pharmaceutical companies and other areas. So, he made miniature versions of Reverse Osmosis equipment in the water purifier, patented his technology and then he started this Kent purifier system. It started in a garage, the whole family combined to support him with individualized responsibilities. And this is one successful case where you lead the industry without really foreign technology, but with the indigenous effort.

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The common factors in Thyrocare, Nirma and Kent

- The three entrepreneurial ventures discussed belong to three different sectors; Thyrocare in healthcare, Nirma in FMCG and Kent in whitegoods; they, however, had several common characteristics
- Founders had core competencies relevant for chosen products and services
- Founders identified, based on first-hand experience, market gaps and developed service or product to cater to the need
- They were both 'first-to-market' and 'right-to-market' with their offerings
- They were first generation entrepreneurs, starting their ventures with meagre resources
- Two of the ventures shaped themselves on high-end technology while one deployed high-end marketing
- All the three founders believed in meeting India's native needs creatively, choosing the product and service spaces that offered huge potential for ramp-up
- Most importantly, they demonstrated passion to overcome resource constraints and/or overcome intense competition



So, when we look at all these 3 cases, Thyrocare, Nirma and Kent, you will find that they belong to 3 different areas. Thyrocare was in healthcare, Nirma was in consumer goods, fast moving consumer goods and Kent is in white goods. But there were certain common

characteristics, one, all the founders had had core competencies, two of them had core competencies in technology, one had core competence in marketing.

The founders identified based on their experience, based on their knowledge, and based on their firsthand experience, market gaps. And developed services or products which catered to the need. They were both, first to market and they were also right to market. To my knowledge, there was no provocation or you know disenchantment in any of these things, all the 3 worked very well from the first start of the project. Therefore, they are first to market and right to market.

They were all first-generation entrepreneurs they did not have the backing of an industrial family or even a high net worth individual. All the 3 ventures focused on meeting the native needs successfully. They created gaps, identified gaps and provided the products and services that met. And also because India is a huge market, whether for medical diagnostics or water purification or for domestic cleaning, there was huge potential for ramp up, and also more people could easily come into that area.

More importantly, again, they demonstrate the passion to overcome resource constraints and also to overcome intense competition, especially in the case of Nirma.

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The other side of entrepreneurship

- There is a general perception that entrepreneurship and education are positively correlated; the more specialized higher education one has, the more successful one could be as an entrepreneur
- The education-entrepreneurship nexus is supported by a slew of high-tech start-ups in the digital and biotech spaces
- There is the other side of entrepreneurship too; college dropouts have been highly successful in the entrepreneurial space as the following two slides show
- There is also no nexus between (higher) economic status and (greater) entrepreneurship; lack of finances has not deterred entrepreneurship
- Many entrepreneurs typically overcome their humble and poor beginnings; they understand that the formal social systems, including lack of formal education, do not enable conventional pathways of growth to them, but have the creativity and tenacity to overcome such handicaps
- That said, skill, creativity, passion and diligence in combination do have a clear association with entrepreneurship



While talking about entrepreneurship, we also have a kind of view, particularly in today's circumstances, that the more educated you are, the more specialized you are, the more likely you can be a successful entrepreneur. And as we go through the various stories of doctorates

and highly accomplished people setting up entrepreneurial ventures, you tend to agree that you need to study hard, study smart and study long for you to be a successful entrepreneur.

There is no denying that having high education and having high level of skill does help you in getting the entrepreneurial crown. But there is also this other side of entrepreneurship. There have also been college dropouts who have been highly successful in generating entrepreneur enterprises. That is because this knowledge has 2 components. One is knowledge per se, that is an awareness of various scientific and technical matters. The other one is skill, an ability to create something new based on this knowledge.

And that can be new also, that is, you can through your capability, create new ways of doing things, which is not necessarily related to the formal education. The other one is that there are certain aspects which are little more managerial than technical. Therefore, even without formal education, you can be successful in doing those kinds of things.

And thirdly, many times when you want to start something, it is not that you require the total education or total technology, you can do the first phase with whatever you have, and then as you scale up, start acquiring newer capabilities. So, and also another aspect is that there is really no nexus between education and entrepreneurship on one hand, again, no nexus between, what should we say income status and entrepreneurship.

In fact, there have been cases where people who had suppressed social situation, suppressed income situation, they took to entrepreneurship as a way to fight out of the constraints and demonstrate to themselves and to the society that despite the handicaps, they could kind of raise. Even when you look at some sports people who have come up again in the hard way, you can see that, why look at all those things, even Dr. Abdul Kalam, how he has come up from his humble beginnings to acquire so much knowledge and become a great scientist.

All these things point out that there is this formal way or the textbook way, in which we can grow in our lives, whether it is a professional life or an entrepreneur life, there is also a non formal way in which we can fight against all odds and become successful professionals and entrepreneurs.

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College dropouts who became successful entrepreneurs - global examples

S. N.	Entrepreneur	Company	Initial Domain
1	Bill Gates	Microsoft	Computer software
2	Michael Dell	Dell, Inc	Computer hardware
3	Richard Branson	Virgin	Music, airline (plus)
4	Steve Jobs	Apple, Inc	Consumer electronics, Computer hardware and software
5	Walt Disney	Walt Disney Productions	Movie production house
6	Henry Ford	Ford Motor Company	Automobile manufacturing
7	Milton Hershey	The Hershey	Chocolate manufacturing
8	Larry Ellison	Oracle Corporation	Software services
9	Coco Chanel	Chanel	Fashion
10	Mark Zuckerberg	Facebook	Digital social media
11	Travis Kalanick	Uber	Ride sharing
12	Jan Koum	WhatsApp	Digital social media
13	John Mackey	Whole Foods	Groceries
14	Evan Williams	Twitter	Digital social Media



So, I will give you a few examples of college dropouts who became successful entrepreneurs. Today, each of these companies is a leader, when you talk about Microsoft, Bill Gates and Paul Allen. Then one of the biggest electronics hardware company, computer company, Dell, Michael Dell, Richard Branson's Virgin Airlines, Steve Jobs' Apple. So, the examples go on and on.

All of these gentlemen who have or lady, Coco Chanel, who have built these wonderful entrepreneurial institutions, did not have the kind of formal education, which one would associate with entrepreneurship, but they created novel things. And you will see that in all these examples, they were almost the first to generate their kinds of enterprises. The desktop operating system was a vision, was an aspiration and also executed very well by Bill Gates.

Similarly, creating a media house compatible computer was Steve Jobs' dream. Walt Disney, how he created from cartoon animation to movie production seamlessly, that is another entrepreneur dream. And of course Henry Ford needs no mention, how he created the automobile T Model.

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College dropouts who became successful entrepreneurs - Indian examples



S. N.	Entrepreneurs	Company	Domain
1	Trishneet Arora	TAC Security	An IT security company
2	Ritesh Agarwal	Oyo Rooms	Affordable hotel chain
3	Kailash Katkar	Quick Heal	Antivirus software
4	Kunal Shah	Freecharge	Digital payment app
5	Bhavin Turakhia	Directi	Collaboration and communication app
6	Ayush Jaiswal	Pesto	AI-based HR tech platform
7	Amit Sharma	Chrome Pictures	Advertisement
8	Rahul Yadav	Housing.com	Housing aggregator platform
9	Pallav Nadhani	Fusion Charts	Charting for digital and mobile apps
10	Varun Shoor	Kayako	Web designing and development

Source: Entrepreneur, Inc; Inc42; Rediff.com

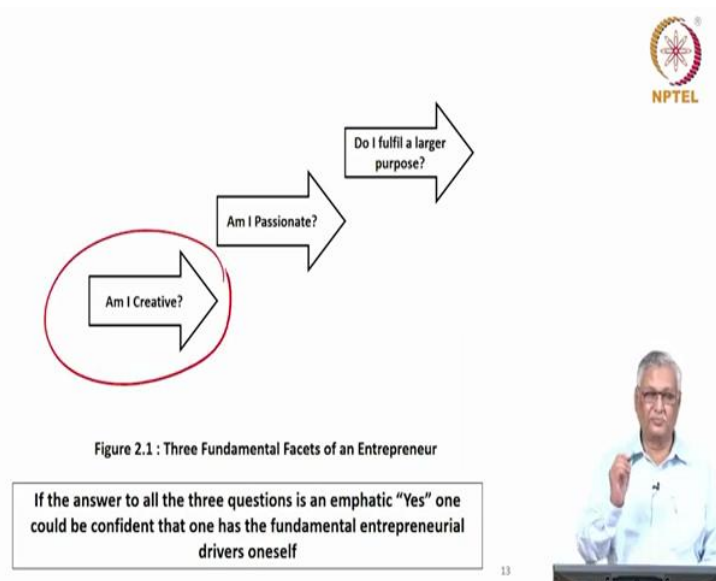


In India also we have got many examples of dropouts who became successful entrepreneurs. We can talk about at least 10 people who have worked in various digital and non digital services. Oyo Rooms is quite well known to us in terms of affordable room services. We also have Rahul Yadav who established housing.com as a platform for house seekers and rent seekers. Then we have free charge which is a digital payment app, so potential is enormous.

So, the point that I am trying to make is that you can look at this paradigm, being college dropout in a completely different way. One, At times reverse correlations do not work out, just because several people have been successful, even being college dropouts, it does not mean that we should seek to be a college dropout to become an entrepreneur.

The point here is that even as you are, let us say, first year, second year or third year, or even as you are an early executive, or middle executive, there is always this option to explore how your knowledge and how your skill can be converted into an entrepreneurial venture. So, there is no perfect time when you become an entrepreneur, collecting all the knowledge that one should have to become an entrepreneur, it is a kind of process of continuous evolution. But what you require is the entrepreneurial quest or the trigger, which we discussed a few minutes ago.

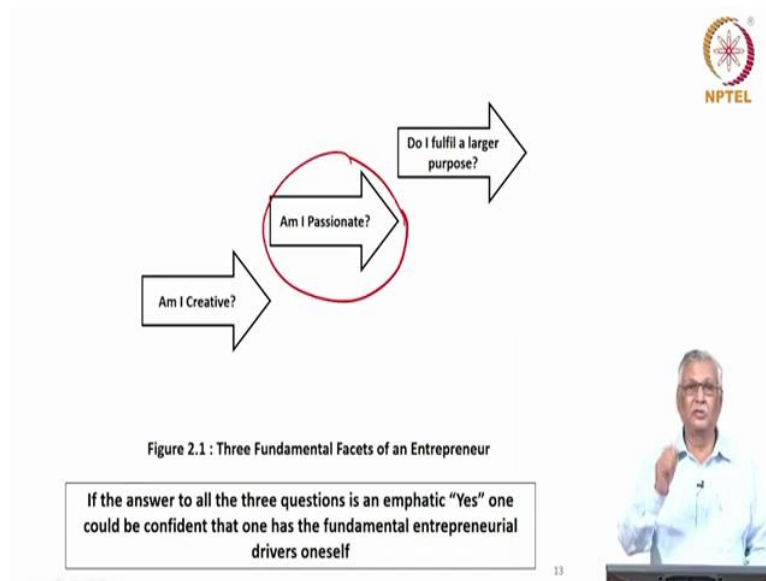
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So, there are basically 3 questions which we need to ask ourselves as we talk about entrepreneurship. The first question is, am I creative? If I am a person who likes doing things in a repetitive manner, without much disturbance, and if I am a person who would like to stay in my comfort zone, I teach what I teach, day in and day out, I do not want to experiment with some new method of teaching, or I won't move out of my core area and try to understand something else, then probably I am not very good at entrepreneurship.

So, the first question which I had to ask myself is, am I creative? Creativity means finding something new, novel, which is utilitarian, but also which is workable. Ideas, per se, do not mean creativity. We all have ideas, lots of ideas we have, but true creativity means an idea which can be made into a workable proposition.

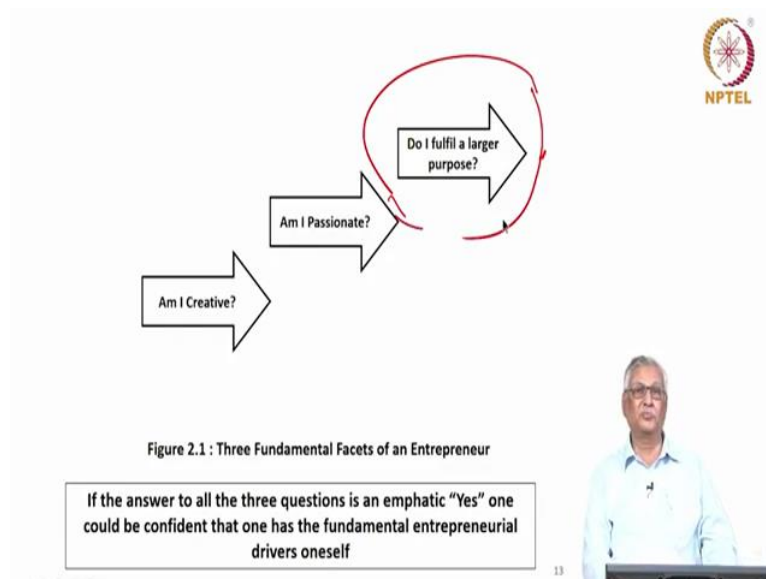
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The slide features the NPTEL logo in the top right corner. A diagram consists of three arrows pointing right, arranged in a staircase pattern. The top arrow is labeled 'Do I fulfill a larger purpose?', the middle arrow is 'Am I Passionate?', and the bottom arrow is 'Am I Creative?'. The 'Am I Creative?' arrow is circled in red. Below the diagram is the caption 'Figure 2.1 : Three Fundamental Facets of an Entrepreneur' and a text box stating: 'If the answer to all the three questions is an emphatic "Yes" one could be confident that one has the fundamental entrepreneurial drivers oneself'. A speaker is visible in the bottom right corner.

The second one, am I passionate? Have I got the ability to take on this entrepreneurial journey with finances or without finances and make sure that I am in a position to deliver what I promised to deliver.

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The slide features the NPTEL logo in the top right corner. A diagram consists of three arrows pointing right, arranged in a staircase pattern. The top arrow is labeled 'Do I fulfill a larger purpose?', the middle arrow is 'Am I Passionate?', and the bottom arrow is 'Am I Creative?'. The 'Am I Passionate?' arrow is circled in red. Below the diagram is the caption 'Figure 2.1 : Three Fundamental Facets of an Entrepreneur' and a text box stating: 'If the answer to all the three questions is an emphatic "Yes" one could be confident that one has the fundamental entrepreneurial drivers oneself'. A speaker is visible in the bottom right corner.

The third one is do I fulfil a larger purpose? Am I doing it just as a job substitution mechanism? Am I doing it for my daily living? Or am I doing it because I am fulfilling a larger purpose? So, when you look at these 3 questions and answer yourself with the firm yes in each of these things, then probably you are ideal as an entrepreneur.

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Answering the three questions...

Prior to embarking on an entrepreneurial journey, one must intuitively and logically introspect oneself:

- Am I truly creative enough to bring out a product or service to serve an unfulfilled need or to fulfil more creatively the prevailing need catered to by an existing product or service?
- Am I passionate, gritty, and diligent enough to not only go through the challenges of product and business development with resource constraints, and even last through successive failures?
- Do I see a purpose larger than an immediate technical, product or commercial goal in the entrepreneurial venture?

If the answer to all the three questions is an emphatic 'yes', one could be reasonably confident that one has the fundamental entrepreneurial drivers in oneself



So, let us look at these 3 questions in a little more detail. Two things, one, we must intuitively investigate ourselves, introspect on ourselves. And secondly, we should also logically introspect about ourselves. Because when we look at ourselves in a mirror, although the physical apparition is there, we are biased in looking at how we see ourselves. Similarly, when we talk about our mental makeup, we introspect or reflect, many times we tend to be biased, we think that yes, we can do.

But then we should have the objectivity to analyze ourselves whether we are doing that. So, when we say creativity, we are talking about something which is the prevailing need catered to an existing product or service. So, we have all the time, products and services which meet all the basic needs, whether it is writing, whether it is sitting or standing or commuting or communicating, we have got always products which are being used.

So, creativity means doing that in a different way, which is what the smart device has done or the smartphone done. It has kind of converged several functionalities into one product and added a creative substitute for a whole range of activities. That didn't mean that the other products sat still. So digital cameras said that I cannot allow this situation to go on. So digital camera came up with better lens resolution mechanisms, they also came up with wireless transfers. They also came up with the professional shooting and various other things.

So, there is always this creativity which works within the competitive landscape. The second, when we talk about passion, it is very difficult to say. But passion includes grit, and diligence. Passion is wanting to do some things at any cost. But as you keep doing it, you will

get a lot of rejection, you get a lot of hurdles and you find that the path is more difficult than what you are embarked upon.

So, there are challenges, there are unviability situations, am I passionate enough to keep chiselling away for my product. The third, is that the purpose should be bigger than immediate technical product or commercial goal. If I say that I am trying to do this wonderful pen only because I want to get revenues or I want to get market share, it is a goal, but it is not a purpose.

If I say that this goal is to ensure that I make a mark in the digital communication space, then you are having a larger purpose. Similarly, when you talk about these diagnostic chains, and if you look at it as a business purpose, that is one kind of activity. But if you say that my purpose is to transform the diagnostic market in India, and make sure that the medical diagnostics is a great help for promoting wellness rather than curing illness, there is a bigger purpose.

So, it is important to define ourselves in terms of these 3 questions, question ourselves as much as possible, find out various answers and then triangulate these answers and find out whether we had the real entrepreneur spark in us.