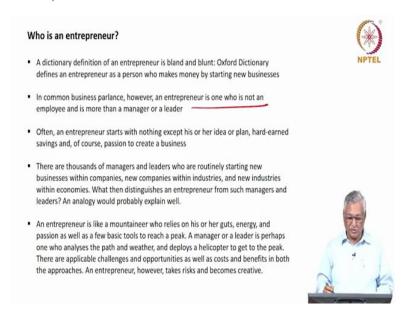
Entrepreneurship. Professor C. Bhaktavatsala Rao. Department of Management Studies. Indian Institute of Technology, Madras. Module-02. Entrepreneurial Discovery Part-2

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So, let us try to define who is an entrepreneur. We speak so much about entrepreneurship, entrepreneur. So, let us try to simplify this definition. The dictionary definition of entrepreneur is surprisingly blunt and very blunt. It says that entrepreneur is a person who sets up a business to make money, which is not so great, because everybody wants to do that. So, there is obviously quite a different twist on entrepreneurship, as we understand in business.

An entrepreneur is certainly somebody who is more than an employee and he is also more than a manager or a leader, because in normal corporate system, you will find several employees, many managers and a few leaders. An entrepreneur, maybe acting in any of these roles, but certainly he is quite different from these roles. If you want to define entrepreneur in a very simple manner, he is somebody who has nothing but an idea and a few chips in his pocket, and who is setting upon a course of developing something novel, from this, he is creating business almost out of nothing. So that is the crux of entrepreneurship.

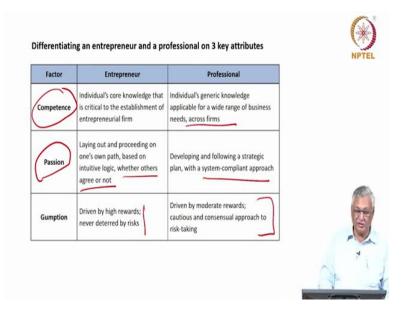
Then you also say that there are thousands of managers who are continuously creating new businesses, like you think of ITC, they were people who set up the Sun Feast brand of business. The company set up its paper and board making business, it was once upon a time as cigarette making behemoth, but today it is quite diversified. All that happened because managers and leaders in that company created new business verticals they are developed.

So, the issue is with various groups, that we have in them, several leaders who set up new businesses, then what is so distinct about entrepreneurs. And for that, let us take one example. The example is very raw, very simple. An entrepreneur is somebody who is like a mountaineer. What does a mountaineer do? He has a few kind of implements and who has got the grit, he has that goal in mind, and he goes on climbing the mountain.

He does not use any other sophisticated technologies. He does not think, he will say that if I have to climb Everest, I must climb Everest. Maximum he will see the best season to climb the mountain and then leave the rest to his capability and to some extent to chance. On the other hand, a professional leader will do a lot of pathway mapping, he will see which are the best ways I can reach the place, to what extent I can hop in a helicopter, to what extent I can use the GPS, to what extent I should be equipped with telecommunication medium.

That is, he would equip himself far more and he will be bound by several rules as he embarks upon his journey. So, this is this difference between being an entrepreneur and being a professional leader, which means that entrepreneur takes risks and becomes creative in this process.

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So, let us look at 3 areas in which, first we talked about knowledge, skill, etc. We will call this generally competence. For an entrepreneur, his core knowledge is extremely critical. If

you are wanting to have a digital watch, which does not require charging every day, the entrepreneur should have the core technical skill in making a battery, which will last 7 days, 10 days, even a lifetime. So, if he has that core skill, he becomes an entrepreneur.

But a professional is one who has generic knowledge, he generally understands what battery making is and how should we set up battery plants and he could very well fit in a capital goods company, he can fit in a railway traction company, he can fit in an automobile company, and he can fit himself in a conventional battery making company. So, a professional has a generic knowledge, which he will very delightfully apply to different industrial systems across firms.

Whereas the entrepreneur has certain core technical skill, much deeper than what a professional has, and he is able to convert his core technical skill into the business. Then we talk about passion. The entrepreneur sets his own path, he does not follow anybody's path, he has his own logic and he will proceed on that whether others agree or not.

I had my entrepreneur friend who decided 20 years ago that we should be in a position to put our injectable products into the western world. So many people said that it is too hazardous a risk, even established companies like Dr. Reddy's and Lupin have not ventured into that path so aggressively. As an entrepreneur, are you not taking a big risk? But he says that he said that only when you take that risk and be ahead of others you will be in a position to have the market for yourself and also fulfil a larger purpose of earning valuable foreign exchange cut to the country. So that is the way the entrepreneur works.

Whereas the professional has a very clear strategic plan. He has got the strategic plan which is divided into various functional plans, product plan, manufacturing plan, commercial plan, and he follows the system compliant approach in converting his passion into delivery. Then gumption or guts. An entrepreneur is driven by high rewards, he is not deterred by risks.

He sees mega valuations of the company and he sees the positioning in the entrepreneurial world, he wants to be recognized as one of the greatest enterprise builders. So, he is kind of looking at those kinds of things, whereas a professional look at moderate rewards, he wants to be praised as a good leader, he wants to be happy expanding the business or the core company. So, there in these 3 factors, you will see significant differences between how an entrepreneur functions and how a professional function.

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But there are two aspects of an entrepreneur. An entrepreneur is an industrial pioneer, an entrepreneur is also an academic activist, so we will talk about that. When people like Thomas Alva Edison and Wright brothers or Benz, Daimler when their founders had their technologies, they built those technologies into products and therefore they created industries. Again, we spoke about Disk Operating System which we will get started.

So industrial history has it that most new technologies are developed into practical solutions and industries are built around that, social media, search, these are all built around novel ideas, where industries became new developments. Biologics, genetics, cyber security, artificial intelligence, a whole number of terms are coming up today from 1990's till date, which are progressing well into future with great promise.

But why is it that big companies do not take those technologies into their own fold and start. There are 2-3 reasons. One, big companies have high overheads, they have got a bureaucratic way of functioning. And thirdly, they are answerable to the shareholders. So, they do not want to do things which have high risk, which have uncertain lead times, which cannot be justified through commercial means at this point of time, though, but they also recognize that possibly, there is a lot of merit in going through that route.

Therefore, they say that these are best done by entrepreneurial ventures and they would allow university researchers, they would allow budding technologists come up with those kinds of developments, like development of orphan drugs in the pharmaceutical industry. Orphan drug

is something for which there is no known pharmaceutical solution. And normally big pharma has a turnover in billions of dollars.

So, when they want to do an orphan drug research, not every investor is pleased with that, they feel that it is really not adding to the core purpose. But at the same time these pharmaceutical companies recognize that an orphan drug, once it is developed, it can provide a sizable profit margin. It can provide a lot of healthcare benefits, it can position the company as a differentiated the company in the pharmaceutical space. Therefore they are constantly on the lookout for entrepreneurs who are working in the orphan drug area.

And once those the drugs mature, they either acquire in those technologies or taking over those companies. Similarly in R&D, pure R&D, like Ather Energy where electric mobility was being thought of for the first time 3-4 years ago, companies said that let us see how Ather Energy develops its electric two wheeler and Hero has taken a stake in that because they would like to be connected with this system of electric vehicle development.

But felt at that point of time 3-4 years ago that it was too early an initiative for the company at that point of time when there was so much to be done in the IC engine 2-wheeler segment. Therefore, there are certain characteristics of lean structure, risk-taking ability, agile development which can go very well with the entrepreneurial thrust and make arcane developments, make novel developments the right choice for entrepreneurial forays.

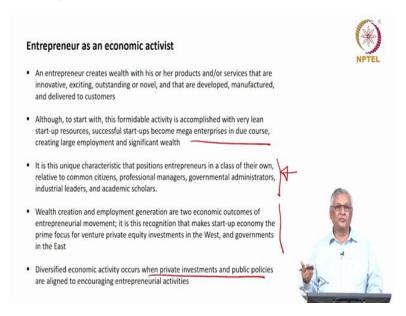
And as I said, once the technical feasibility and economic viability is established, companies are willing to take those technologies or the forms themselves. In this manner entrepreneurs constantly act as industrial pioneers who keep expanding the boundaries of industries or creating newer areas. Today in the medicine area, gene editing, genetics, personalized medicine, these are some of the hot areas for entrepreneurs to work on.

And there are at least 30-40 leading companies in the field of personalized medicine. And big pharma companies are waiting, because big pharma has got number of drugs which are being used for cancer treatment, but nobody is sure which drug works best in which person. These companies, this precision medicine companies are using genetic technology to make sure that this match is perfect and very efficient.

So, people are waiting for these kind of companies to blossom and then they take a pick in those companies. And most times they get valued very handsomely for what they are doing. They get valued for the technology and the potential they offer in the hands of a bigger

company than just for revenues or for profits. So that is industrial pioneering, which a company does.

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The other is economic activist. Compared to the standard established mature sector, an entrepreneurial sector offers much greater employment opportunity, much more wealth creation opportunity because you are in a position to plug your products and process into a number of niche areas which cannot be covered by big companies. And many companies have become mega enterprises in due course.

As I said in the very first statement at the beginning of the course, every enterprise we see today has been a small company, an entrepreneurial company when the company started its life. Therefore, the path to mega enterprise is through entrepreneurial ventures. This characteristic of creating great economic wealth, creating huge employment, positions entrepreneurs in a class of their own.

They are different from common citizens, they are different from professional managers, they are different from government administrators, they are different from industry leaders and even academic scholars. But I would like to also caution, that this does not mean that entrepreneurs are super persons. They are human beings, they have got their achievements, they have got weaknesses, which we will discuss in subsequent sections.

But as far as entrepreneurship is concerned, as far as ability to transform an idea into a product or service, as far as the ability to create business out of very meagre resources, entrepreneurs are a class apart. Like for example, if I have to be a professional leader and

want to do a new project, unless the resources are mapped out, that project will never be approved, that project will never take off.

Whereas with an entrepreneur, he will say that as I develop the product, I will get the necessary resources, so I need not wait, let me not lose time in this quite different in approach to both the wealth creation and employment generation. And it is this recognition that is powering the western governments and western university systems to focus on entrepreneurship in a very elaborate way. And in India as we go forward, private investments and public policies must really look at encouraging entrepreneurship.

There is a department for industrial promotion, which is now registering all these start-ups. In the latest ET start-up awards function, the minister was saying that already 50,000 companies are registered as start-ups and potentially India is likely to have the largest number of start-up registrations going forward, which is a very encouraging sign for economic development.

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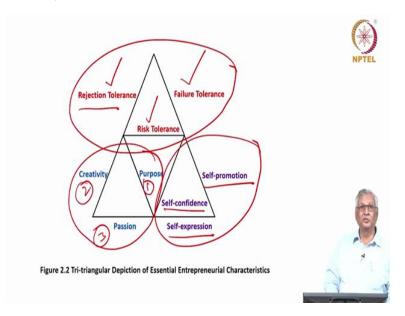


So, we talked about people rewriting the industrial history, when we talk about Henry Ford (Ford Motor), Matsushita (Panasonic), Morita (Sony), you can see that individuals have rewritten the entire industries. So that is the kick of entrepreneurship. Then there were entrepreneurs who expanded, even though Ford created its automobile history, William Durant, who was the head of General Motors created an equally capable automobile company.

Similarly, Richard Branson with his Virgin, he created an equally capable airliner, and in India, even when we were under British occupation, it was possible for Jamshedji Tata,

Larsen and Toubro, Dhirubhai Ambani after independence to create their ventures which fought with the shackles of either lack of independence or regulatory regime to set up enterprises. So, people become icons because they create something novel something which is very differentiated in the face of adversities.

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In this grid, I have proposed the 9 factors which are extremely important for an entrepreneur. Just to recall in this whole session or in this course module, we are trying to approach entrepreneurship as a personal capability and we are trying to focus on various aspects which define for us whether we have something that makes us an entrepreneur. So, there are different ways to look at it and we talked about creativity, passion, and then ability to move ahead against the issues, that is one way of looking at it.

Here, it is much more purposeful and purposive way of looking at it. There are 3 aspects, one is the delivery aspect, that is this group of factors, then there is an enabling aspect, this is this group of factors and then there is the sustainability. So, when we look at 3 aspects of entrepreneurship one is the delivery aspect, 2nd is the enabling aspect and the third is the sustainability aspect, we look at a perfect entrepreneurship model.

What is the delivery aspect, we discussed it sufficiently, one we should have purpose, two we should be creative, three, we should have passion. Now, this serial numbering does not mean that they start in that order. You may have passion to become an entrepreneur, therefore, you may discover a purpose, therefore, you may discover a creative way of doing this.

Or to start with, you might be a very creative person understanding that your technology can be used for this product, then you could be very passionate about that, then you could build a larger purpose over that. So, the question here is not what comes first, all the 3 are important. That these 3 together make the delivery portion of the entrepreneur, without these 3 an entrepreneur cannot deliver. Now the enabling portion, because an entrepreneur is his own marketing person, he is his own fundraising person.

So, at the core he should have self confidence, or self worth, as you may say. Which is saying that whatever I am doing is something not only I believe in, what others must believe in, because there is self worth in whatever I am doing. So, self-confidence is extremely important. Secondly, self-expression, an entrepreneur who keeps an ideas to himself, or who is an introverted person is unlikely to be successful because the world needs to know, the world does not know.

At the very basic of entrepreneurship is that you are doing something which nobody knows about it, nobody understands that this is the way of doing things so, it is up to you to demonstrate how this product or service can be useful. So, ability to express yourself in a very cogent, cohesive, thoughtful and effective manner is important. Then the third aspect is one of self-promotion. Normally, when we talk about promotion, we think that it is a kind of narcissistic journey that is, we are in love with ourselves.

So, in our normal corporate system, if somebody talks about himself or herself, people will think that he is being boastful, but not so as far as entrepreneurship is concerned, because there is nobody to promote you. The entrepreneur journey is one of not being known. So, you got to promote yourself, you got to promote your product, you got to tell how this product is superior, which means that you have to demonstrate some established icons being moved away by your new product.

So, you are able to be even iconoclastic in your way of doing things. When we talked about Nirma, there was a lot of promotion as to how this product is much superior to the high priced detergents. Therefore, unless you are in a way unabashedly promoting your products, you cannot be an effective promoter. So, this is the second group of factors which is self confidence, belief in your self-worth, which leads to the self confidence, then ability to express yourself very cogently and cohesively.

And the third one is promoting your product yourself as an entrepreneur and your enterprise.

Then the third one is sustainability. Sustainability is the most important aspect of

entrepreneurship. While we talk about first time right, first to market, it does not mean that

every time we are going to be successful as entrepreneurs. It is not that every time the market

opportunity pans out as the way one thinks about, the technology pans out as one imagines it

to be.

So, there are definitely going to be failures. Those failures come in 3 areas. The first is

rejection. When you say that I am an entrepreneur, I am coming up with this project and you

go to the high net worth individuals or you go through the venture capital investors, you are

likely to get rejection too, because they will say that, what is the big idea.

If you say that I got a watch, which will work like a digital watch, people will say that no no

no there are already watches for that, even Apple is there, they will come up with this, there

is no point in you coming up with this kind of product. So, there is likely to be rejection. So,

this kind of rejection should not make you a broody person, a kind of person who is

withdrawn. You should be tolerant towards rejection, that is one of the first things.

You should know that people are the first response of the other parties to an entrepreneurial

venture is to say that probably this is not going to work. So, your ability to tolerate rejection

and go ahead and press ahead with your thought process, that is extremely important. The

second is the risk tolerance. If you think about your project, however passionate you are

however committed you are, as analysing individual, you know that there are risks involved.

And you also feel that certain risks are far beyond what you can manage. But you should

have this tolerance for this kind of risks, that is the second important aspect. And the third

one, failure tolerance, we should understand that the first product need not necessarily be the

best product, there could be issues in that product. Therefore, your ability to manage this

failure and go ahead that is very important. So, all these 3 sets of factors feed into each other,

they are actually one big bundle.

And for example, if you have a failure, unless you have the creativity to come up with an

alternate solution and again have the purpose and passion supporting you, you will not be

able to come out of that. So, these are all interlinked, but this 9 factor grid is extremely

important for you to assess yourself on this entrepreneurial mould.

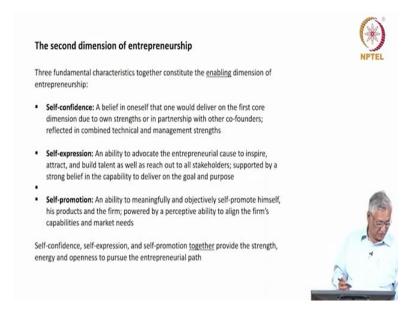
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The first dimension of entrepreneurship Three fundamental characteristics together constitute the delivery dimension of entrepreneurship: Creativity: is ideation to create something new and innovative, strongly coupled with the ability to turn such new, novel and innovative ideas into workable products or services Passion: an extreme and irrepressible urge to pursue a mission or goal against all odds, strongly coupled with the ability to course-correct without giving up on the goal Purpose: A social or economic purpose that inspires the entrepreneur to be guided by an enduring logic all through his or her entrepreneural journey Creativity, passion, and purpose together cause an entrepreneur to come up with disruptive but truly helpful solutions to problems and issues, known and unknown hitherto.

So, let us talk about this again a little more. When we talk about the creativity, we said that it is ideation, but focus is always on new, novel and innovative ideas into workable products or services. When we talk about passion, please do couple with course correction. Passion does not mean being dogmatic or dogged in whatever you are doing without logic. Passion means also doing some kind of course correction as you go forward, without giving up on the goal.

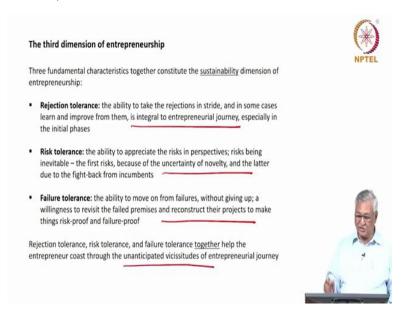
When we talk about purpose, please look at an enduring logic, that logic should be sustainable for 5 years, 10 years, 15 years, so it is larger than a business plan. These 3 together cause a technology which is disruptive but helpful to the society.

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The second dimension, I already spoke about it, which is the belief in oneself, and the ability to express yourself and promote yourself.

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And the third one I talked about taking rejections in stride, this is integral to the entrepreneurial journey, especially in the initial phases. This tolerance always is there because all novel technology is uncertain, and then there is also the fight back from incumbents. The level of risk which you encounter in your entrepreneurial journey becomes heightened, when other entrepreneurs also join the fray and everybody has got meeting rooms everybody has got passionate founders.

So, when you have that level of competition, the risk level obviously goes up. And the third one is the ability to reconstruct the project. When you have failures, how do you reconstruct my project? Like for example, you said that you will have a smart wearable, which will detect your Parkinson's mechanism, that is you hold a pen, you will be able to detect how your nervous system is coping with that.

So, you may develop a product thinking that everybody will hold the pen in a particular manner. But you fail to distinguish between let us say, a left-handed Parkinson's person and a right-handed user with Parkinson's. So, you could find a difference in this and the product may not succeed universally. So how do I course correct this? How do I make the product more universal? These are the kinds of things which are important in reconstruction and making this entrepreneurial journey sustainable. These are called unanticipated vicissitudes of entrepreneurial journey.

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Understanding entrepreneurial risks and rewards Risk and reward are generic terms which are understood and experienced by different individual entrepreneurs in different manners, personally as well as contextually Risks: bankruptcy, business failure, product failure, commercial unviability, financial losses, esteem loss (professional and social), personal and family distress, shame and embarrassment Rewards: company valuations, acquisition deals, licensing deals, business profits, industrial and social status, excitement of success, personal and family prosperity Risk-Reward balance: Varies from entrepreneur to entrepreneur; some entrepreneurs stay focused on building the firm to the highest scale possible, with continued risk-reward oscillation while others monetize and move on at every opportunity

So, we talked very frequently about risks and rewards, what are those risks? So, I have actually done that from the highest risk to the lowest risk. The worst risk you can have in an entrepreneurial journey is bankruptcy, that is you are completely broke, you do not have a pie to support you and you have all the liabilities, you have no assets to back the liabilities, you are on the road.

Then comes other kinds of risks which are smaller, business failure, it could be product failure, it could be commercial unviability. So, as the risks go towards the right, you will find that those risks are manageable. But if you do not manage those risks well, like for example, you start with the shame and embarrassment of failure, to personal and family distress, then esteem loss, these are all the small, tangible and intangible risks.

If you do not manage them well, then you might get into financial loss, you might get into business failure, finally bankruptcy. So, when you look at risk, you should never look at bankruptcy as the looming risk, that is the only risk, you should look at other risks also which could happen and then try to mitigate those risks. Once you manage the smaller risk, the bigger risks will automatically manage themselves.

The other way also looking at rewards in a very way. The simplest reward is personal and family prosperity. Then the other reward is excitement of success, the social status, industrial status you get, then the business profits you get, the licensing deals you get, how you are looked at by big companies for acquisition, and finally the company valuations, these are all the risks.

Now this balance between risk and reward varies from entrepreneur to entrepreneur. Some entrepreneurs take the high-risk reward route, some people take a balanced route. They also change based on the environment which obtains from time to time. But some people monetize at every opportunity and then move on. The way we monetize is to have let us say we talk about a pharmaceutical entrepreneur. He may decide to have 4 types of products as I said earlier and monetize one product, use those resources to feed the other 3 products.

Similarly, if you are a company which is specializing in smart wearables, you may have sensor technologies, you may have battery technologies, you may have the entire assembled product, you may have smart wearables of different types using these 3 technologies. You may decide to license out your battery technology early on, use those proceeds to develop the entire portfolio of your products, therefore you have different ways.

Some people may say or think that why should I leave out anything now, I will try to do as much as possible and in this process take higher level of risk. So, it is up to the entrepreneur to take the kind of risk reward, which you should do. And that is where having a good cofounder or having a board to mentor him or a strategic planner also would help.