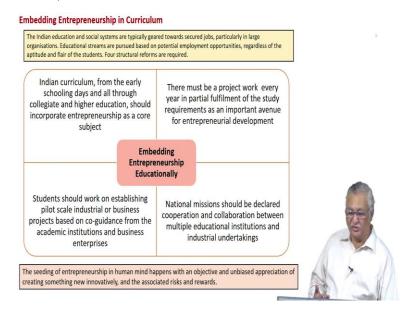
## Entrepreneurship Professor. C Bhaktavatsala Rao Department of Management Studies Indian Institute of Technology, Madras Lecture 47 National Entrepreneurial Culture Part 2

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Now, focusing on the curriculum part of it, how do we embed entrepreneurship in curriculum, how can we make an educational culture which is oriented towards entrepreneurship, how do we move about the compass which is always pointing towards security jobs, that to into large organization point towards smaller companies, entrepreneurial companies and not necessarily large companies.

How do we ensure that the education and social systems that are typically geared towards secured jobs, particularly in large organizations, encourage and embrace smaller jobs, smaller organizations and also uncertain environments. So, how do we make our education streams which are structured around potential employment opportunities, regardless of aptitude and flair of students, how can they be rechanged.

Why should only computer science education be taught, why not certain other experimental methods of developing new products be taught, why not we have a course in having our own digital products rather than having a course on the programming languages, how do we do that. So, for that, 4 structural reforms are required.

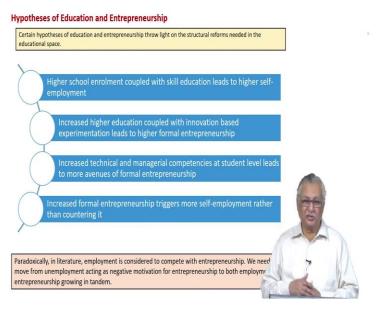
First, have core subject of entrepreneurship from the very beginning, from the very early school days. Secondly, every year you must have a project work which is in partial fulfilment of the study requirements, which but it serves as an important avenue for entrepreneur development.

Third, students should work on pilot stage industrial or business projects based on co-guidance from industrial experts, as well as academic professors, that is the third aspect. And fourth, national mission should be declared, which ensure that industry and academia collaborate with each other and make sure that certain important missions relating to our society are handled in an entrepreneurial way.

So, the seeding of entrepreneurship in human mind happens when we have an objective and unbiased appreciation of creating something new from the, from our very early days. So, when you read a western scientific model, or when you read a western management model, and think about developing your own Indian model of that you are entrepreneurially thinking.

So, the ability of the educational system to encourage to facilitate the Indian mind to, to think in a creative and entrepreneurial way is the most important aspect of embedding entrepreneurship in curriculum, it is not so much as setting up a new enterprise which it is that entrepreneurial mind-set that would drive the enterprise formation.

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So, what are the hypothesis of education and entrepreneurship, earlier we have looked at other hypotheses relating to national culture and entrepreneurship. So, what are the hypotheses that

cover education and entrepreneurship, these hypotheses throw light on the structural reforms needed in the educational space.

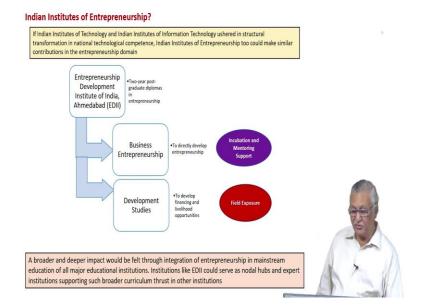
The first hypothesis is that, higher school enrolment coupled with skilled education leads to higher self-employment. That is, if more people grasp the fundamentals of education, which happens during the school stage, whether it is the physics, chemistry, biology principles, or the mathematical principles, the language skills, plus certain technical skills, artisan skills, if these two get coupled, there is a greater chance of higher self-employment.

Similarly, if you have higher level of higher education, which is coupled with innovation-based experimentation, will have higher formal entrepreneurship. Third one, increase technical and managerial competencies at student levels, helps promote entrepreneurship to a greater degree. Because as a student if you are able to manage events, if you are able to drive your network, if you are able to connect with the fellow stakeholders and create new products and services, or you are able to observe what is happening in the organizations and try to inculcate those spiritual aspects, then you would be in a position to develop formal entrepreneurship much easier.

And increased formal entrepreneurship, contrary to popular opinion, increases employment rather than countering it, and more so it would increase even self-employment. As I said earlier, a large formal organization has got the ability to support lot of self-employment. There is a direct employment base that happens with an industry, there is lot more indirect employment that happens with the industry formation and the indirect employment typically has got the greater self-employment that happens.

In literature, paradoxically employment and entrepreneurship are seen as competitive elements. We need to move from unemployment as being a negative motivation to entrepreneurship being a positive motivation both for employment as well as for entrepreneurship itself. So, it should be a virtuous cycle where more entrepreneurially oriented we are, we are able to generate more employment and we are able to generate more entrepreneurship in the society.

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So, to be able to handle this, what should we do, we have discovered that if you have Institutes of Technology, Indian Institute of Technology as institute of national importance, we will be in a position to give great boost to scientific and technological education in the country.

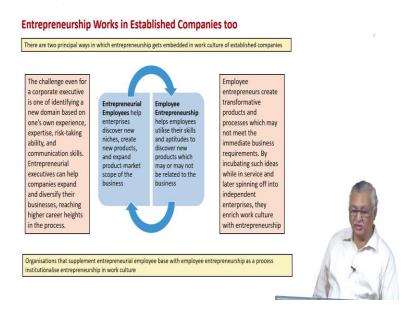
Similarly, when IIIT were set up, Indian Institutes of Information Technology, they are able to provide great boost to very specialized computer specific education. Similarly, if you want to have entrepreneurship take on a national movement should we not have Indian institute of entrepreneurship, that is one hypothesis that is to be considered.

We have in Ahmedabad, Entrepreneurship Development Institute of India, EDIA, which offers 2 year postgraduate diplomas in entrepreneurship. And that has got two wings, one is business entrepreneurship to directly develop entrepreneurship, and provides incubational mentoring support. It also has development studies as another wing, which tries to provide financing and livelihood opportunity pathways, so that provides field exposure.

This is one model that has been successful, so should we not have more models of entrepreneurship development institutes across the nation. And when you integrate entrepreneurship in mainstream education in this manner with the role models of entrepreneurship development institutions acting as the boosters for this, probably we will have entrepreneurship embedded very firmly in the Indian educational system.

And it will provide broader curriculum thrust because entrepreneurship would then start figuring as the important aspect of the major curriculum, the major mainstream curriculum would be anchored around entrepreneurship as well.

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Secondly, entrepreneurship works in established companies too. Established companies need not have hegemony only over employment. That is because when a human mind works, it works both on the short term and the long term. When a scientist or engineer works, he works not only on current products, but he has got a mental thought process that works on a new product.

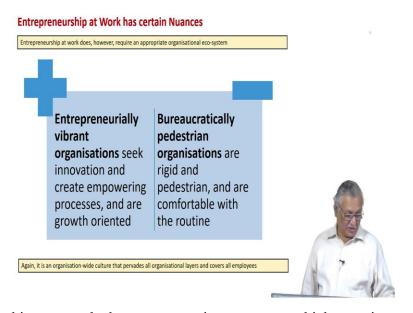
So, when you have entrepreneurial employees in your organization, they help enterprises develop new niches, they help the organization create new products and they expand the product market scope of the business. So, entrepreneurially oriented employees doing this is understandable. But what we need to promote is employee entrepreneurship, that is directly targeting employees to be entrepreneurs.

So, when you have employee entrepreneurship as an organizational cultural anchor, you will make your employees or you will facilitate your employees to utilize their skills and aptitudes to discover new products which may or may not have immediate use, which may or may not directly relate to the business. Many times, lots of entrepreneurial thinking, lot of, lots of innovative thinking that happens in the organization gets either moved out or stymied because there is not useful for the existing business.

But if such thinking is useful for then, for the society at large or if it is useful as an entrepreneur discovery by itself, which is happening for value creation at a future date, why should not organizations encourage. So, it requires a shift in the mind-set of organizations from being my business, my product, and my employee, and my work from that we need to move to creativity as the centre and if that creativity primarily deals with my organization, but also that creativity can help other product lines and other service lines, why not we encourage, that should be the objective of organizations.

So, organizations that support entrepreneurial employees with employee entrepreneurship are like to be very successful and likely to be very pioneering in terms of moving our organizational entrepreneurship culture.

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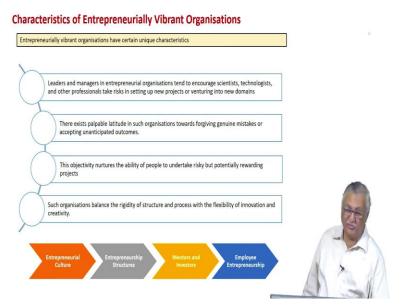
But entrepreneurship at work has got certain nuances, which requires essentially good organizational ecosystem. We can classify all our organizations as of two types, one entrepreneurially vibrant organizations and bureaucratically pedestrian organizations. Bureaucratically pedestrian organizations are very rigid, inflexible, they would like to do what has been done earlier and they would not like to stray off from the chosen path, and they are comfortable with routine.

On the other hand, entrepreneurially vibrant organizations, they seek innovation, they decide that empowering process, empowering people, promoting growth, are the 3 critical parameters of

driving innovation. So, entrepreneurially vibrant organizations create an ecosystem which helps employees become entrepreneurial, and also encouraging employee entrepreneurship.

So, if you have an organization wide culture that covers not merely the leaders, but all the employees and across all the hierarchies, and across all the domains, there is a much greater chance that entrepreneurship at work will work in a much better fashion.

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So, what are the characteristics of entrepreneurially vibrant organizations, primarily leaders and managers concentrate on encouraging scientists, technologists and professionals take risks for setting up new projects, or for developing new products and also venturing into new domains.

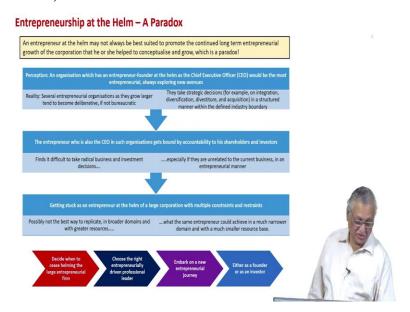
In such organizations there is noticeable, there is clear willingness to accept failure a person in pursuit of a new product or business but fails will not be castigated, will not be taken to task, because such outcomes are considered unanticipated outcomes and which could lay this foundations for newer successes later on.

So, there is a palpable latitude in such organizations towards forgiving genuine mistakes. This objectivity nurtures the ability of the people to undertake risky but potentially rewarding projects. So, when risk tolerance of an organization is higher, the individual's propensity to take genuine risks also goes up.

And therefore, there is greater likelihood that good products will come out of that, will come out of that system. Such organizations also excel in balancing the rigidity of an organization structure, the systematization of the process that happens there, with the flexibility that innovation and creativity requires.

So, to sum it up, you need an entrepreneurial culture in an organization, you should have structures which promote or facilitate entrepreneurship, we need mentors and investors who are entrepreneurially oriented, the leaders themselves, the managers themselves have to be entrepreneurially oriented encouraging both entrepreneurially oriented employees as well as employee entrepreneurship. And finally, it all comes to the employees themselves; they should be oriented towards entrepreneurship in the way they think, act and work.

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So, when we look at the entrepreneurship, it may be very easy to imagine that if you have an entrepreneur at the helm, that is as the founder CEO, it is all rosy for entrepreneurship. But actually, the reality seems to suggest, that having an entrepreneur at the helm does not necessarily mean that there is entrepreneurship all around, because an entrepreneurial firm may also be run on certain guided principles, not allowing much orientation for newer entrepreneurial ventures within this system.

In fact, an entrepreneur at the helm may not always be the best suited person to promote continued long-term entrepreneurial growth of the corporation, which is a paradox. So, the

perception that if you have a CEO, who is a founder promoter that was the most entrepreneurial company, need not necessarily be true. The reality is that as entrepreneurial organizations over grow their entrepreneurial roots and become large, they become highly deliberative if not bureaucratic.

They take their strategic decisions; be it integration, diversification, divestiture, or acquisition, in a very structured manner within the defined industry boundary. So, the moment an entrepreneurial firm becomes a mainstream firm, you would find that there is a change in the mind set of top leadership, even if the top leadership comprises the founders and co-founders of the entrepreneurially established company and there would therefore be a collateral viewpoint with the operating team.

Secondly, growth happens through lot of investment that has poured into the company by investors. Therefore, the entrepreneur who is also the CEO of a growth-oriented entrepreneurial company has got his own accountabilities to the investors, to the shareholders, and the other public. So, it is no longer the entrepreneur passion for a product that drives it is also the accountability to the investments that have been made in the company and the business plans that have helped get those investments, that is a big change in the entrepreneurial company.

Therefore, it becomes that much more difficult to make radical business and investment decisions. And more particularly if such decisions are unconnected with the current business, so if, as an entrepreneur the founder finds out that after 4, 5 years of growth, this organization has to do something completely different, then it would not be easy for the enterprise to do that because enterprise has got its own ways of accountability at that point of time.

Therefore, getting stuck as an entrepreneur at the helm of a large organization has got its merits as well as demerits, it has got its own constraints as well as the restraints. Firstly, probably it is not the best way to replicate, in broader domains and with greater resources with the same entrepreneur would achieve in a much narrower domain.

That is, if an entrepreneur has been very successful in a narrow well-defined domain, it is not axiomatic that the same entrepreneur would be able to do that in much broader domain set. Even if the resources are available aplenty, it is not necessary that the entrepreneur would be able to do that much multiplier effect, while serving as the head of an organization.

I have seen personally entrepreneurs who have set up enterprises with capital as low as, let us say 5 lakhs of rupees or 10 lakhs of rupees, but when they have resources, which are now of, let us say 50 crores or 100 crores, they are not able to repeat the entrepreneurial magic.

It is not because they themselves have kind of worn out in terms of their entrepreneurial skill sets or passion, mission elements, but they have become in a way prisoners of an institutional establishment set up, which requires accountabilities to different stakeholders and different objectives.

Therefore, getting stuck as an entrepreneur at the helm of a larger corporation has got its merits, as well as demerits. So, there are four factors in this theme. One, decide when to seize helming the large entrepreneurial firm, that is a very key decision which an entrepreneur needs to take, then choosing the right entrepreneurially driven professional leader to take over the reins.

Then the third, embark on a new entrepreneurial journey and that journey could be in terms of setting up a new enterprise, new entrepreneurial enterprise, or it could just be as a founder or as an investor in other entrepreneurial initiatives. So, the good way to do entrepreneurship is not only to establish a company and to grow it, but also not to get stuck with the firm for long, knowing when to hand over the reins and knowing when to maximise one's own potential with other ventures or other investments.

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Leader Transformations and Transitions for Entrepreneurial Culture An entrepreneur at the helm may not always be best suited to promote the continued long term entrepreneurial

To be able to do this transformations and transitions for an entrepreneur culture, there are four aspects again. One, should I be an entrepreneur leader, should I continue to lead strategically and operationally, should I become a professional leader, or should I remain only as an investor and provide strategic counsel. So, there are number of ways in which an entrepreneur can operate.

And if you are an entrepreneurial leader, ensures continuity in the entrepreneurially charged start-up. The whole culture is pivoted around the entrepreneur, therefore continuation of the leader as an entrepreneur obviously helps the company retain its entrepreneurial roots. However, when the entrepreneur is at the helm, when the organization becomes large, not having certain professional systems or structures does destabilize the organization, which is a topic which we have discussed in an earlier thing.

On the other hand, the entrepreneur may decide that I will be continuing to lead the organization strategically and operationally whatever the size of the organization. What that leads to is greater attachment between the entrepreneur and the organization both emotionally and physically, and it leaves very little propensity to bring in new thought.

I have also seen companies where the promoter has been at the helm, for let us say over 3 decades and it has become impossible for that leader to bring in new talent because the whole organization has become so centred around the founder promoter who has been at the company for three decades or so.

And it has also become impossible for the newer people to find a value proposition with which they can work in that organization. Or the choice is that, okay, I have had my earnings as an entrepreneur leader, let me try to become a professional leader. So, when the person makes the change, he gives up his idea of setting up additional entrepreneurial ventures, but his focus will be on achieving both scalability and sustainability for this organization.

So, the downside, as I said is the inability to create new start-ups which the person would have been able to do had, had he handed over reins to a more capable professional leader. The other aspect is that I would be an investor, I would provide my strategic counsel, but I will not be into day to day operations.

So, it secures the ability to fund and establish new entrepreneurial ventures, you become connected with the enterprise you continue to get connected with the enterprise, but also obtain a

new freedom to create newer ventures. So, these are the four ways primarily, two ways one would say.

You want to be an entrepreneur leader get engaged in a much more closer manner in terms of strategic and operational decision making. The nexus between the organization and the entrepreneur grows even stronger and it becomes even more difficult to get in outside talent, that is one route to grow.

The other route is to become a professional leader kind of disengage over a period of time, bring in new talent let them take over the company. And also, eventually become an investor and a counsel to the industry, to the firm rather than to continue to run the firm.

So, the question is again, can there be a professionally oriented entrepreneur leader does it happen at all, can you have a professionally oriented but also entrepreneurially oriented leader possible, should we have change with continuity, or should we have change without continuity, these are the dilemmas which are there in leader transformations and transition to embed in entrepreneurial culture in the organizations. And if more organizations are having those kinds of entrepreneurial cultural facets obviously, the country should have more entrepreneurial capability.

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Now, the other aspect of entrepreneurship as corporate social responsibility. So, corporate social responsibility does not mean only giving to charity or giving for social causes, it could be

through industrial activities, it could be through enterprises activities as well. It need not necessarily be in the 2 percent cap that has been, or 2 percent guidance that has been suggested as occurring out of profits for CSR activities.

It would be in a completely different manner of doing entrepreneurial projects or projects which will have impact on the society. So, let us look at these six aspects.

Suppose an organization has encouraged an entrepreneurial venture that will help the company eliminate scrap. Suppose an automotive company has developed a product which eliminates paint shop pollution, that is the huge amount of water that is discharged from a paint shop with all the cancer-causing paints, if that is eliminated. If we have got abilities to extract bad air from the chemical plants and provide fresh air at the required intervals, we will be improving worker hands.

So, if you have got HVAC system, which are efficient from an energy point of view and also very effective from the worker health point of view, we have been able to provide social entrepreneurship. If you are able to develop products that reduce auto emissions without really waiting for the electric vehicles that would come, which must come at some point of time.

Similarly, if we are able to design bus bodies, which reduce the rollover, which improves the safety parameters, then there would be social contribution of such entrepreneurs and some projects which directly support society. So, when you have these kinds of ventures, they may not fall under the CSR definitions.

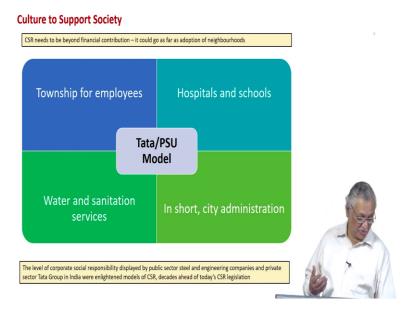
But nevertheless, these are all, in my opinion, socially oriented social entrepreneurship projects, and the more such projects we have in our midst more socially oriented entrepreneurship becomes while retaining the technological age.

So, what we can define, what we may call business economic responsibility, which must be there as the foundation, which takes us to corporate social responsibility as a means of challenging the entrepreneurial difficulties with our own financial inputs, they say at 2 percent of profits, as I said earlier.

Then we have collective entrepreneurial responsibility, as an organization, the leadership, the organization, the investors, how do we address both the technological and social problems

through entrepreneurship, that is a collective entrepreneurial responsibility. And finally, as an individual, as, as a scientist, as an economist, as a professional, what is my individual entrepreneurial responsibility. So, we have got four ways of looking at entrepreneurship as a CSR phenomenon.

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So, how does the culture support society, as I said, each organization has its own ways of looking at responsibilities towards the society and towards the nation. Public sector undertakings when they were set up decades ago, they saw development of the backward region as a national social responsibility.

So, along with that came the concept that they would provide integrated townships, so that not only talent is attracted, but the talent is enabled to grow happily and prosperously in that region. So, they created, same is with certain progressive private undertakings, Tata Steel, which has been the genesis of Tatanagar at Jamshedpur.

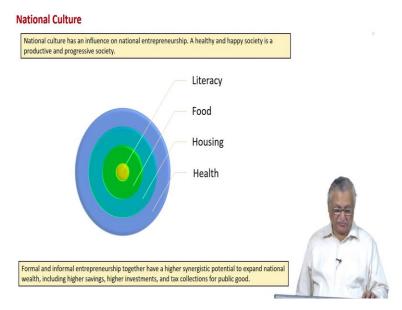
So, they created townships for employees, they constructed hospitals and schools ran them successfully, they provided water and sanitation services, in short, the entire city administration was provided by such undertakings.

So, the level of corporate social responsibility which is far beyond financial contribution, which is as much as like creating new neighbourhoods or adopting new neighbourhoods is completely a

very unique, and very socially responsible and responsive way of conducting business and it was far ahead, decades ahead of the implementation of the CSR regime.

So, there are ways in which if leadership, if promoter family, or if the government is culturally oriented towards the development of entrepreneurship, there could be other ways in which the society could be made to benefit from such investments.

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So, national culture has an influence on national entrepreneurship. A healthy and happy society obviously, is a productive and progressive society. So, what are the four circles of prosperity that happened, one, the core circle, I would, a core of the circle I would say is literacy. And literacy does not mean only degrees and diplomas, literacy means ability to comprehend, ability to analyse data, ability to have certain way of intellectual pursuit, discipline, a compliance that comes with understanding the importance of being rigorous in approach to life, that is literacy. And second circle food, third is housing, and fourth is health.

When formal and informal entrepreneurship, when they work together to expand national wealth, including generating higher savings and therefore higher investments, and therefore higher tax savings, they are in a position to address these four essential needs of a, of our population, be it literacy, food, housing, or health. Therefore, when you have a happy and healthy society, it leads to higher joy of nation building, and where does it come from, it basically comes from wide spread entrepreneurship in the country.

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So, while an entrepreneurship, we should also look at women entrepreneurship as very important topic. Whatever is discussed under the topic of entrepreneurship applies equally to women entrepreneurship, but still an additional discussion on women entrepreneurship is warranted.

an issue. Role in formal employment is meagre

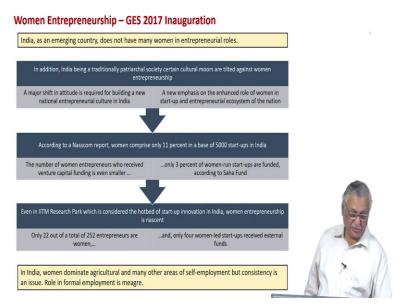
A developed economy like the United States can obviously boast of having a relatively greater presence of women in, as entrepreneurs. In US women run around 11 million businesses, representing 36 percent of total businesses. Yet by their own admission, it has not been an easy growing path for women start-ups even in advanced countries.

There are studies and researches which indicate, that women-led start-up find it difficult to get funding. In the venture capital and private equity industry, women participation is rather low. Researchers from University of California, San Diego have stated that men make 90 percent of venture capital community, which influences a clear bias in favour of funding start-ups led by male entrepreneurs.

This has been happening despite firms founded by women with male investors or female investors doing on par or better than male founded, male invested firms. And this gender diversity seems to be a greater issue in formal entrepreneurship, rather than informal entrepreneurship. And it seems to be a greater issue as we all know in formal employment, rather than in informal employment, even in advanced countries.

As a result, US has got a dedicated business body, US Women's Chamber of Commerce, which we do not have. Although, big agencies like CIA and a SHM have got cells, which exclusive look after women's entrepreneurship, as well as employment. In India, women do dominate agricultural and many other areas of self-employment, but consistency is the issue. And the role in formal employment and formal entrepreneurship is meagre.





So, how do we really address, we had in India, Global Entrepreneurship Summit in 2017, which was inaugurated in 2017.

So, India as an emerging country does not have many women in entrepreneurial roles, so it is a hypothesis. Also, India being a patriarchal society, there are certain social cultural moves which are tilted against women entrepreneurship. Therefore, we need a big shift in the attitudes for building a new national entrepreneurial culture in India.

We need to have a new emphasis on the enhanced role of women in start-up an entrepreneurial ecosystem of the nation. According to a report by NASSCOM, which is a, which is an industry body for software and allied industries, women comprise only 11 percent in a base of 5 thousand start-ups in India.

The number of women entrepreneurs, who received venture capital funding is even smaller. Only 3 percent of women entrepreneurs having start-ups are funded, according to Saha Fund. Even in the IIT, Madras Research park, which we have discussed in this course as one of the role models

and prime examples of incubation within the educational system, we find that not many are women entrepreneurs, it is still nascent.

Established out of 252 entrepreneurial ventures that are established through the IIT, Madras Research Park System, only 22 are set up by women and only 4 women start-ups have received external funding. Therefore, we need to do something about this and ensure that we have got more women entrepreneurship taking roots in the country.

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So, in Hyderabad, in 2017, November 28, 29, 30, we had the Global Entrepreneurship Summit which exclusively focused on women entrepreneurship. And the delegation from the US was led by Ivanka Trump, who is the daughter of US President Donald Trump, also Advisor to President and the summit was inaugurated by our Prime Minister Narendra Modi.

And the theme of this summit was, women first prosperity for all and it focused on supporting women entrepreneurship and fostering economic growth globally. The participation of women in the summit was massive, they made up 52.5 percent of entrepreneurs, investors and ecosystem supporters attending the event. Even if a small percentage of this interest is converted into actual entrepreneurship by women, then the spread effect of this summit would be very great.

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## Some Key Statements at GES 2017

Global Entrepreneurship Summit of 2017 (GES) had many global leaders speaking on the importance of women entrepreneurship in particular, and entrepreneurship in general

Narendra Modi, India's Prime Minister said: The theme "Women First, Prosperity for All" makes this edition of GES stand out. We believe women empowerment is crucial to our development. More than sixty percent of workers in our agriculture and allied sectors are women. Amongst many examples of women's empowerment in India, he said, "our milk co-operatives in Gujarat and the Shri Mahila Griha Udyog Lijjat Papad, are examples of highly successful and globally acclaimed women-led co-operative movements. The power to think differently and ahead of the times for the betterment of mankind is what sets entrepreneurs apart. I see that power in India's young generation today, I see 800 million potential entrepreneurs who can work towards making the world a better place".

Ivanka, Advisor to US President, said, among other things, "It is a proven study that 90 cents of a dollar spent by what a woman earns goes back to families and communities, which eventually gives back to society". Eventually, we will be doing more good to the community and society at large with an increase in the number of women in Entrepreneurship. In developing countries, 70 percent of women-owned smaller enterprises were being denied access to capital, leading to a near USD 300 billion credit deficit for them. Estimates are that closing the gender entrepreneurship gap can contribute to global GDP by 2 percent."

The gender diversity in start-ups will be beneficial for the whole world. Specifically, a McKinsey study says that India is expected to gain an addition of USD 700 billion to its GDP by a greater focus on women entrepreneurship, and closing the gender gap.



So, that couple of key statements that have been made in this summit. Many statements, of course, were made all were having lot of relevance and potentiality for women entrepreneurship. He, Narendra Modi said that, our milk cooperatives in Gujarat and Shri Mahila Griha Udyog Lijjat Papad, are examples of highly successful and globally acclaimed women led cooperative moments.

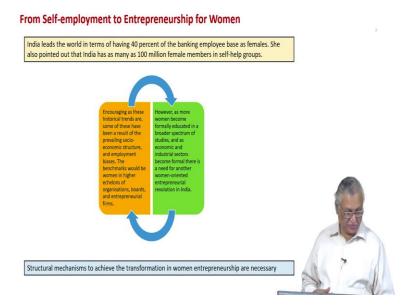
The power to think differently and ahead of the times for the betterment of mankind is what sets entrepreneurs apart. I see that power in India's young generation today, I see 800 million potential entrepreneurs who can work towards making the world a better place. Ivanka said, it is a proven study that 90 cents of a dollar spend by what a woman earns goes back to families and communities which eventually gives back to society.

That is, if one dollar is earned 90 percent of the dollar goes back to the families and through the families to the society. So, we will be doing more good to the community and society at large, with an increase in the number of women in entrepreneurship.

In developing countries, according to her statement, 70 percent of women owned small enterprises of being denied access to capital, leading to nearly USD 300 billion credit deficit for them. Estimates are that closing the gender entrepreneurship gap can contribute to global GDP by 2 percent.

The gender diversity in start-ups will certainly be beneficial for the whole world. Specifically, a McKinsey study says, that India is expected to gain an addition of USD 700 billion to its GDP, just by greater focus on women entrepreneurship and closing the gender gap.

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So, from self-employment to entrepreneurship for women, we considered earlier that much of the informal employment is in terms of women taking up agricultural roles, or small business roles, or individual vendor roles. But from to move from self-employment to entrepreneurship for women, we need a kind of revolution.

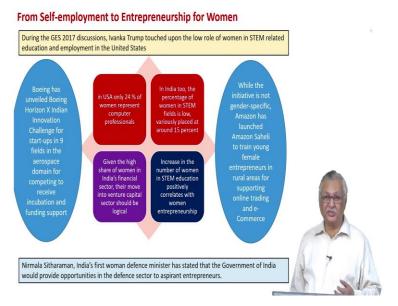
And it should not be impossible to have, from a situation where we did not have womenemployees in banks, today we have 40 percent of the banking employee base as females, when that has been the kind of entry that has taken place.

In medicine, we have got many women doctors, we have got self-help groups where we have got 100 million female members working therein. So, we need structural mechanisms that achieve transformation in women entrepreneurship, particularly formal women entrepreneurship. So, we have got definitely certain prevailing socio-economic structures, certain family biases, employment biases, security biases and the sheer challenge and constraint of raising families, kids, educating them.

However, as more women become formally educated in a broader spectrum of studies as societies become more mature and more understanding of the specific requirements of

supporting women employment as well as women entrepreneurship, we will find that there would be a more women oriented entrepreneurial culture in the country. So, it is as much mind-set issue as that of having structural mechanisms and process mechanisms to support women entrepreneurship.

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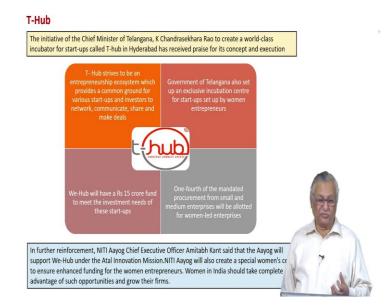


As I said, there have been initiatives as result of the Global Entrepreneurship Summit. In US, only 20 percent of the women represent computer professionals. And if you have lower percentage in computer studies and also in STEM studies, the ability to kick-start the digital economy becomes that much more challenged.

Therefore, to enhance the women entrepreneurship it also goes without saying that women participation in STEM education should be very high. And in India too women participation in STEM education is just around 15 percent, we need to increase that. Then, we have got companies which can have the ability to have gender specific accelerator programs and innovation challenges that is quite possible.

Amazon has launched, Amazon Saheli program to train female entrepreneurs in rural areas and more companies can do that. So, ministerially the governments can lead such developers like, Nirmala Sitharaman when she was the Minister for defense, she said that the defense ministry would see how aspirant women entrepreneurs can be helped in the defense services.

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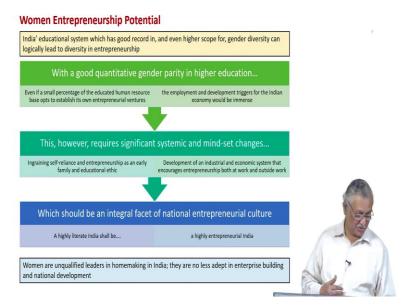


The government of Telangana, led by Shri K Chandra Shekar Rao set up one of the largest start-up hubs, called T-hub in Hyderabad. It has got good aspects which provided lot of praise for the conception and execution. Apart from having very good plug and play space, it tries to create an entrepreneurship ecosystem so that many companies can network, communicate, share and make deals. Then there is an extensive and exclusive incubation centre for start-ups set up by women entrepreneurs.

Special fifteen crore fund has been sanctioned to meet the investment needs of such women startups. And one fourth of the mandated procurement from small and medium enterprises will be allotted to women led enterprises. In addition, NITI Aayog the think tank of the government, led by the Chief Executive Officer Amitabh Kant has said, that the Aayog will support the We-Hub, which will have this rupees 15 crore fund allocation, under the Atal Innovation Mission, so that more funds will flow into the activity. NITI Aayog will also create a special women's cell to ensure and has funding for the women entrepreneurs.

As a result, we are having the green shoots have a change in the environment, the mind-set, the structural enablers for women entrepreneurship to grow in the country and women should take advantage of such opportunities and grow their firms.

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So, what is the potential for women, we have very good record and even high scope for gender diversity. And if you have higher educational record, we have seen as one of the earlier hypothesis that it will promote higher formal entrepreneurship.

So, with a good quantitative gender parity in higher education, assuming also equally good qualitative parity, if not superiority. Even if a small percentage of educated human resource base opts to establish its own entrepreneurial ventures, the employment and entrepreneurship triggers for the economy would be immense. This, however, requires significant systemic mind-set changes. Ingraining self-reliance, in graining self-employment, ingraining entrepreneurship as an early family and educational ethic.

That should also be co-opted with an industrial and economic system that encourages entrepreneurship both at work and outside work. And this should be an integral facet of national entrepreneurial culture.

When you have a highly literate India, you will also have a highly entrepreneurial India. And specifically, on women, when women are known to be unqualified leaders in homemaking in India, they will be no less adept in enterprise building as well as in national development. So, we have several ways in which we can embed entrepreneurship in national culture.

It could be through education, it could be through employees working at their jobs, it could be through leaders driving their enterprises and the employees towards more innovation, more entrepreneurship. And it could be through multiple programs of corporate social responsibility, some directly linked with socially relevant enterprises and some utilizing technology for reaping benefits for the society.

So, there are multiple ways and underlying the theme is greater STEM education and the underlying sub theme is encouraging women becoming more active participants in the entrepreneurial system. Thank you.