Entrepreneurship- Perspectives of Business Strategy and Economic Development Course on Entrepreneurship Professor C. Bhaktavatsala Rao, Ph.D. Ajit Singhvi Chair Professor Department of Management Studies Indian Institute of Technology, Madras. Week 11 Entrepreneurship and Employment - Part 3

(Refer Slide Time: 0:15)

Definitions of Micro, Small & Medium Entreprises

In accordance with the provision of Micro, Small & Medium Enterprises Development (MSMED) Act, 2006 the Micro, Small and Medium Enterprises (MSME) are classified as below:

	Manufacturing Sector	
Enterprise Category Investment in plant & machinery		
Micro Enterprises	Does not exceed twenty five lakh rupees	
Small Enterprises	More than twenty five lakh rupees but does not exceed five crore rupee	
Medium Enterprises	More than five crore rupees but does not exceed ten crore rupees	
	Service Sector	
Enterprise Category	Investment in equipment	
Micro Enterprises	Does not exceed ten lakh rupees	
Small Enterprises	More than ten lakh rupees but does not exceed two crore rupees	
Medium Enterprises	More than two crore rupees but does not exceed five crore rupees	

The primary responsibility of promotion and development of MSMEs is of the State Governments. However, the Government of India supplements the efforts of the State Governments through various initiatives. The role of the Ministry of MSME and its organisations is to assist the States in their efforts to encourage entrepreneurship, employment and livelihood opportunities, and enhance the competitiveness of MSMEs in the changed economic scenario.

Source: Annual Report 2018-19, Government of India, Ministry of Micro, Small and Medium Enterprises





And what are micro, small and medium enterprises? According to the MSMED Act, 2006, they are defined as below: Essentially in terms of investment in plant and machinery for manufacturing sector, and in terms of service sector, units are obviously lower because they do not acquire the same kind of plant and machinery as a manufacturing sector would require.

So, micro enterprises are defined as those that do not exceed 25 lakh rupees in terms of plant and machinery investment. 25 to 5 crores, small enterprises, and 5 crores above, that does not exceed 10 crore rupees, medium enterprises. As we would see in some of the earlier slides related even to governments own approach to economic development. These investment limits have served to keep MSMEs, MSMEs for much longer time than necessary.

And in terms of the promotion and development, it is a shared responsibility between the state governments and the central government.

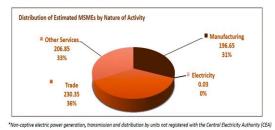
(Refer Slide Time: 1:21)

Estimated Number of MSMEs (Activity-wise)

Author Consumer	Estimated	Ch (0/)		
Activity Category —	Rural	Urban	Total	Share (%)
(1)	(2)	(3)	(4)	(5)
Manufacturing	114.14	82.50	196.65	31
Trade	108.71	121.64	230.35	36
Other Services	102.00	104.85	206.85	33
Electricity*	0.03	0.01	0.03	0
All	324.88	309.00	633.88	100



*Non-captive electricity generation and transmission





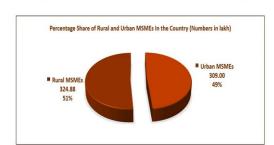
Source: Annual Report 2018-19, Government of India, Ministry of Micro, Small and Medium Enterprises

But the extent of MSME in the Indian economy is really, really huge. When we talk about start-ups, or the new-age entrepreneurial firms, we hardly talk about 10 thousand, 20 thousand registered start-ups with the government of India, DPIIT framework. But when you see the MSMEs that have been established and grown over the last several decades, you will see that there are as many as 325 lakh rural MSMEs and 309 lakh urban MSMEs.

Totally we have 634 lakh MSMEs, which is 64 million MSMEs across the country. It is a substantial number and therefore the MSME contribution to employment is also at a high level. And by nature of activity 31 percent is in the manufacturing space. 33 percent is in the other services and 36 percent is in trades. And electricity related activities are not existing so much.

(Refer Slide Time: 2:32)

Percentage Share of Rural and Urban MSMEs In the Country





Distribution of Enterprises, Category Wise

(Numbers in lakh)

Sector	Micro	Small	Medium	Total	Share (%)
Rural	324.09	0.78	0.01	324.88	51
Urban	306.43	2.53	0.04	309.00	49
All	630.52	3.31	0.05	633.88	100



In terms of rural and urban share, 51 percent of MSMEs are in rural areas and 49 percent are in urban areas. We know that 33 percent of population lives toughly in urban areas and 67 percent lives in rural areas. But there is more equitable distribution in terms of entreprise parameters between rural and urban, almost like 50-50.

And in terms of the share of the micro, small, medium and total, we would see that micro enterprises are the most dominant nature of enterprises in the MSME sector, out of 633.88 lakh MSMEs in total as many as 630.52 lakhs are in micro category. So, the very narrow employment base that accrues from the micro enterprises but are in the largest number is very evident from this.

(Refer Slide Time: 3:38)

Types of Ownership of Entreprises

Male/ Female Ownership

Out of 633.88 lakh MSMEs, 608.41 lakh (95.98%) MSMEs were proprietary enterprises. There has been overwhelming predominance of male owners in proprietary MSMEs. Thus, for proprietary MSMEs as a whole, male individuals owned 79.63% of enterprises as compared to 20.37% owned by female. There was no significant deviation in this pattern in urban and rural areas, although the dominance of male owned enterprises was slightly more pronounced in urban areas as compared to rural areas (81.58% as compared to 77.76%).



Percentage Distribution of Enterprises in Rural and Urban Areas.

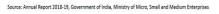
(Male/Female ownership category)

	(water remaie ownership category wise)				
Sector	Male	Female	All		
Rural	77.76	22.24	100		
Urban	81.58	18.42	100		
All	79.63	20.37	100		

Percentage	distribution of	Enterprises b	y Male	Female Owners

Category	Male	Female	All
Micro	79.56	20.44	100
Small	94.74	5.26	100
Medium	97.33	2.67	100
All	79.63	20.37	100

Further, male dominance in ownership has been more pronounced for Small and Medium enterprises with 95% or more enterprises being owned by them, as compared to Micro enterprises where 80% were owned by males.





There is a gender diversity as well here. We have in rural and urban areas' similar gender diversity profiles with women doing only 20.37 percent of enterprises in the MSME sector. And in terms of ownership, the highest level is reached only in the micro sector, female ownership is 20.44 percent. Whereas it reduces when the enterprise becomes small, enterprises and reduces further when the medium enterprise are taken into account.

Therefore, the gender diversity to whatever extent it occurs, that is 20 to 22 percent is confined to micro enterprises rather than to medium and small enterprises, again it is a matter for concern, how do we get more female ownership and more female participation. Not merely in micro enterprises, but also in small and medium enterprises to an equitable level, it could be 33 percent, 40 percent or 50 percent.

(Refer Slide Time: 4:50)

Roles of MSMEs in the Indian Economy

The Micro, Small & Medium Enterprises (MSMEs) have been contributing significantly to the expansion of entrepreneurial endeavors through business innovations. The MSMEs are widening their domain across sectors of the economy, producing diverse range of products and services to meet demands or domestic as well as global markets. As per the data available with Central Statistics Office (CSO). Ministry of Statistics & Programme Implementation, the contribution of MSME Sector in country's Gross Value Added (GVA) and Gross Domestic Product (GDP), at current prices for the last five years is as below:



Year	MSME GVA	Growth (%)	Total GVA	Share of MSME in GVA (%)	Total GDP	Share of MSME in GDF (in %)
2011-12	2622574	-	8106946	32.35	8736329	30.0
2012-13	3020528	15.17	9202692	32.82	9944013	30.40
2013-14	3389922	12.23	10363153	32.71	11233522	30.20
2014-15	3704956	9.29	11504279	32.21	12467959	29.70
2015-16	4025595	8.65	12566646	32.03	13764037	29.20
2016-17	4405753	9.44	13841591	31.83	15253714	28.90

- Gross Value Added (GVA): GVA estimated by production approach: (GVA = Output-Material Inputs) and GVA
- estimated by income approach: (GVA = Compensation of Employees + Operating Surplus + CFC)

 Gross Domestic Product (GDP): GDP is derived by adding taxes on products, net of subsidies on products, to GVA at basic price.
- FISIM: In the present base, the FISIM has been computed only on loans and deposits, using the Reference Rate
 (RR) approach, as recommended in the SNA 2006. In short, it is (I.R-RR)* average stock of loans + (RR-DR) *
 average stocks of deposits. The RR harmonic mean of lending and deposit rate for the banking sector.

Source: Annual Report 2018-19, Government of India, Ministry of Micro, Small and Medium Enterprises

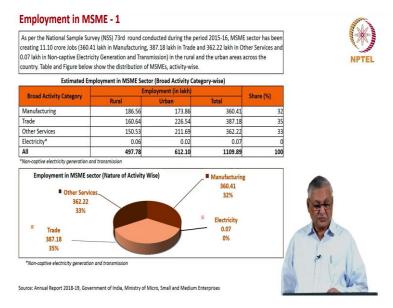




The role of MSME's in the Indian economy is very substantial, as per the statistics, it is by the government of India, over the last 6 years, the contribution in terms of the total gross value added has been consistently growing. And the share of MSME in the overall gross domestic product continues to be high, 29 to 30 percent. Therefore, the role of MSMEs cannot be under emphasized much as we would like MSME to become larger on a progressive basis and contribute, even more effectively to GDP and employment.

Even now, the employment potential, the cross value-added potential, the GDP contribution potential of MSME sector is very high and very notable.

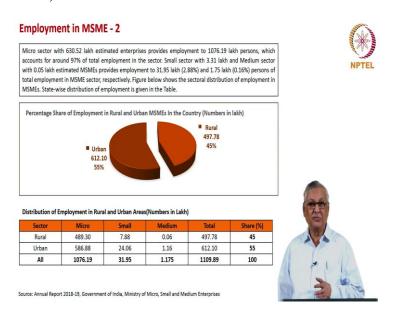
(Refer Slide Time: 5:41)



If you look at the employment, you will find that considering all sectors, 498 lakh people are employed in the rural enterprises and 612 people are employed in the urban MSMEs. Again, considering that the rural and urban mix of enterprises was roughly 50-50. The, the urban MSMEs tend to provide greater employment relative to the rural MSMEs.

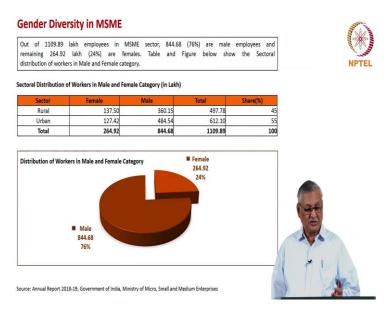
The employment in the MSME sector is also distributed more or less in the same fashion. Manufacturing is at 32 percent, trade in terms of the MSME it was 36 percent and in terms of the employment it is at 35 percent. Other services are 33 percent. Electricity has got a marginal employment capability.

(Refer Slide Time: 6:34)



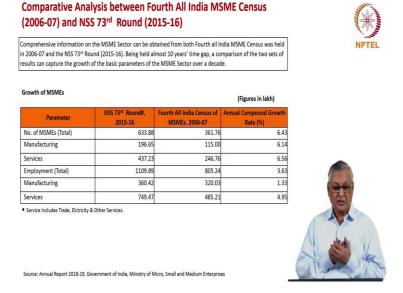
And in terms of the rural and urban MSMEs, the ratios are urban has got higher MSME, 55 percent and rural has got 45 percent MSME employment potential. Some more figures are given overall. The overall numbers in employment in the, in the MSME sector, is 1076 lakh employees which means 108 million people are employed in the MSME sector.

(Refer Slide Time: 7:07)



And the gender diversity is also 24 percent in terms of female and 76 percent in terms of male.

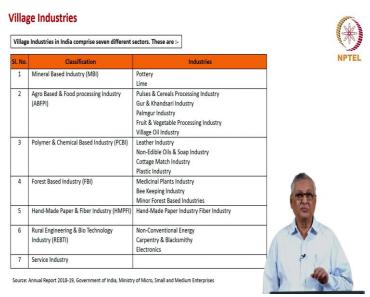
(Refer Slide Time: 7:15)



We can look at comparatively how the employment in MSME sector has been growing over the last few years. We have 2 census, one conducted in 2006-07, and other conducted in 2015-16. When you look at the growth of MSMEs, the growth rate has been 6 percent around for manufacturing and services. Whereas, the employment growth has been only 3.6 percent that is the employment is at half the level of rate of growth as the overall enterprises.

And in terms of growth in the 2 sectors of manufacturing and services, the growth in services is far higher in terms of employment than in terms of manufacturing. So, although the services in terms of enterprises established grow at the same rate, employment potential in MSME services grows at much higher clip, compared to the manufacturing oriented MSME employment.

(Refer Slide Time: 8:17)



We also have within the MSME sector, something which is very unique and peculiar to India, which is village industries. There are 6 to 7 types of industries which are called village industries by the government of India based on minerals, based on agro based, based on agro and food processing industry, polymer and chemical based industry, forest based industry like extraction of honey, handmade paper and fibre industry which assumes lot of importance, even the need to ban plastic in use of plastic and disposable containers, etcetera.

Then we have rural engineering and bio-technology industry which talks about carpentry, blacksmithy and other native arts and the service industry. Each of these industries has the potential to become an MSME firm over a period of time and each such MSME firm also has the potential to get digitalised and get connected to the mainstream industrial situation.

There is no reason why honey developed out of a forest-based industry at village level, cannot be connected to internet marketing through the internet Email companies such as

Amazon and Flipkart. So, village industries could be taken to MSME level and then to the mainstream level through connectivity.

(Refer Slide Time: 9:40)

Village Industries Employment

Village Industries Employment has grown from previous year, from 135.71 Lakh Artisans in 2017-18 to 142.03 Lakh Artisans in 2018-19 (Provisional).



Employment Under Village Industries (Artisan in Lakh)

YEAR	EMPLOYMENT
2014-15	123.19#
2015-16	126.76#
2016-17	131.84
2017-18	135.71
2018-19	142.03



uses Appual Banast 2019 10. Coursement of India Ministry of Missa Small and Medium Enterprises



And the employment in village industries is not small either. We have got 142 lakh people employed under village industry schemes.

(Refer Slide Time: 9:52)

Reorienting policies for MSME Growth

Extract from Economic Survey 2018-19 : Volume 1

MSMEs that grow not only create greater profits for their promoters but also contribute to job creation and productivity in the economy. Our policies must, therefore, focus on enabling MSMEs to grow by unshackling them. Job creation in India, however, suffers from policies that foster dwarfs, i.e. small firms that never grow, instead of infant firms that have the potential to arow and become giants rapidly. While dwarfs, i.e., firms with less than 100 workers despite being more than ten years old, account for more than half of all organized firms in manufacturing by number, their contribution to employment is only 14 per cent and to productivity is a mere 8 per cent. In contrast, large firms (more than 100 employees) account for three-quarters of such employment and close to 90 percent of productivity despite accounting for about 15 per cent by number. The perception of small firms being significant Job creators pervades because job destruction by small firms is ignored in this calculus: small firms find it difficult to sustain the jobs they create. In contrast, large firms create permanent jobs in larger numbers. Also, young firms create more jobs at an increasing rate than older firms. Size-based incentives that are provided irrespective of firm age and inflexible labour regulation, which contain size-based limitations, contribute to this predicament. To unshackle MSMEs and thereby enable them to grow, all size-based incentives must have a sunset clause of less than ten years with necessary grand-fathering. Deregulating labour law restrictions can create significantly more jobs, as seen by the recent changes in Rajasthan when compared to the rest of the states





Source: Economic Survey 2018-19 Volume 1, Government of India, Ministry of Finance, Department of Economic Affairs, Economic Division

While that is the reality and that has been this state of MSME sector. The economic survey of 2018-19 takes a different view on the MSME sector. It does acknowledge that MSME sector has to grow and provide productive employment to larger number of people. However, based on its database, it observes that firms with less than 100 workers which are more than 10

years old. They account for more than half of all organised firms in manufacturing by number.

But the troubling data, the government has is that their contribution to employment is only 14 percent and to productivity is only 8 percent. And the economics survey observes that in contrast larger firms, that is employee count of more than 100 in each firm account for three quarters of such employment and close to 90 percent of productivity despite accounting for 15 percent by number.

It's the kind of 85-15 rule. That is applied. So, the hypothesis from the government or the think tank for the government is that the MSMEs must be unshackled and allowed to grow. And size based incentives that is, incentives to remain small must have a sunset clause of 10 years so that there is a motivation and a compulsion, an economic compulsion for those small scale firms to grow out of the MSME cluster and become big. And there is an example from Rajasthan, where labour law restrictions, when they are deregulated, they could help the companies to move out of the MSME sector and become larger.

(Refer Slide Time: 11:51)



Extract from Economic Survey 2018-19 : Volume 1

Job creation in large numbers remains an urgent imperative to provide financial and social inclusion for our young population. The Economic Survey predicts that the working-age population will grow by roughly 97 lakh per year during the coming decade and 42 lakh per year in the 2030's.

When examined purely according to size, the proportion of small firms in organized manufacturing is around 85 per cent. In contrast, large firms account for only around 15 per cent of all the firms in organized manufacturing. These proportions have not changed much over time as seen in 2010-11. Thus, small firms definitely dominate the economic landscape in India. Crucially, however, small firms accounted for only 23 per cent of the total employment in organized manufacturing in 2016-17 while the large firms accounted for over 77 per cent of the total employment.

These proportions remain similar to those in 2010-11. Even more tellingly, the share of small firms in Net Value Added (NVA) from organized manufacturing was only 11.5 per cent whereas the share of large firms in NVA was 88.5 per cent in 2016-17; these proportions are not different in 2010-11 either.

Even among the small firms, firms with less than 50 employees dominate the most numerically but create the least jobs and remain the most unproductive. Thus, the contribution of small firms to output and employment in the manufacturing sector is insignificant though they account for close to 85 per cent of all firms.

Source: Economic Survey 2018-19 Volume 1, Government of India, Ministry of Finance, Department of Economic Affairs, Economic Division

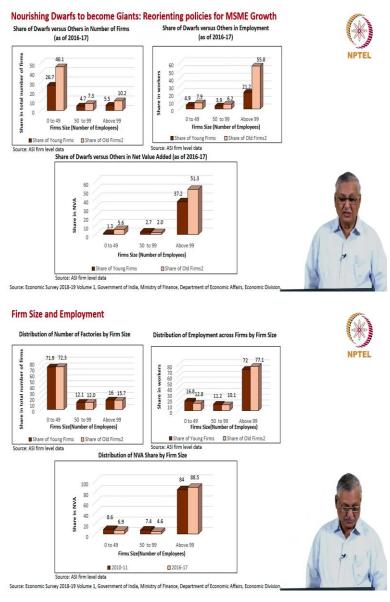




So, given that job creation in large number remains an urgent imperative to provide financial and social inclusion for our young population. Construing that the working age population will grow by roughly 97 lakhs per year during the coming decade and 42 lakh per year in 2030s. The need for job creation in MSME sector or the industrial sector in the overall is very important.

So, the theory that comes from the government, economic survey is that we should have a healthy debate between large and small. To what extent large industry contributes to economic development and employment potential versus the extent to which small industry has been constrained to provide stagnant shares of employment and productivity?

(Refer Slide Time: 12:48)

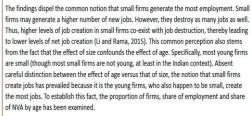


This is the debate which the economic survey tries to publish. There is number of data points which are available along with this. The economic survey without any disrespect to the world says that MSMEs which have not grown despite the progress of age are dwarfs, relative to others in number of firms or in employment. So, this is the data on the distribution of number of factories by firm size.

(Refer Slide Time: 13:24)

Effect of Size Compared to Effect of Age

According to the Economic Survey 2018-19:



As compared to the small firms, it is the young firms that contribute significantly to employment and value added. Firms less than 10 years of age account for about 30 per cent of employment and about half the NVA. In fact, we crucially note that the share in employment as well the share in NVA trend downwards with an increase in firm age. This is despite the fact that young firms are on average smaller than older firms. Thus, young firms account for a disproportionate share of employment and productivity.

Source: Economic Survey 2018-19 Volume 1, Government of India, Ministry of Finance, Department of Economic Affairs, Economic Divis





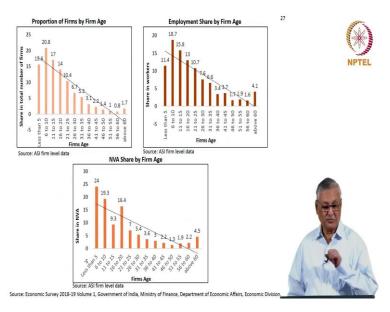
According to economic survey the findings dispel the common notion that small firms generate the most employment. According to the survey, small firms may generate a higher number of new jobs. However, they destroy as many jobs as well. An uncanny reference can be interpreted in terms of entrepreneurial firms generating new jobs but also destroying many jobs. Thus, higher level of job creation in small firms co-exist with job destruction.

Thereby, leading to lower levels of net job creation. This common perception also stems from the fact that the effect of size confirms the effect of age. Specifically, most young firms are small, though most small firms are not young at least in the Indian context. Absent careful distinction between the effect of age versus that of size, the notion that small firms create jobs has prevailed because it is the young firms who also happen to be small create the most jobs.

To establish this fact, the proportion of firms, share of employment and share of NVA by age has been examined, has been economic survey. So, the conclusion is that the firms less than 10 years of age account for about 30 percent of employment and about half of the NVA, and the crucial note is that share in employment as well as the share in NVA trend downwards with an increase in firm age.

So, small firms create higher net value addition, they create higher employment but as they age, their impact gets declined. This is despite the fact that young firms are in average smaller than older firms, therefore the growth effect should be higher on a smaller base. Yet the decline with age of the employment potential and NVA potential of young MSME sector is something which the economics survey is worried about.

(Refer Slide Time: 15:32)



These are some statistics. As the age of a small firm increases, their share in the total kind of declines. The employment share as well as the NVA share.

(Refer Slide Time: 15:45)



So, we will let us look at start-up India in this context. We have got a fair picture of how MSME sector can create employment, its impact can be huge creating lakhs of jobs across the nation through lakhs of enterprises. And it could also be a very powerful instrument for rural-urban inclusive growth. It could also be a very powerful instrument for inclusive gender diversity.

So, there is lot of merit in promoting MSME sector and as the economic survey observes, if the MSME sector is encouraged to age with higher productivity and higher contribution to NVA, that would be the golden formula for the economy. Now having stated that premise, let us look up start-up India. And what is economic survey talk about in terms of start-up India and its potential.

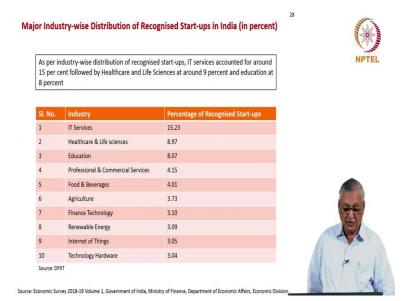
Some facts here, the government has got a system to register start-ups which are willing to get registered. So, under this start-up India, stand up initiative which was commenced on August 15, 2015. An eco-system which is conducive to the growth of start-up enterprises has been part of by the government of India headed by honourable Prime Minister of India, Narendra Modiji.

As on March 1, 2019, 16578 new start-ups were recognised across 499 districts and 47 percent of these were from Tier 2 and tier 3 cities. And 46 of recognised start-ups have at least one-woman director, which is an encouraging sign. And if you see the distribution, 10 states out of the 28 states and 9 union territories we have trigger somewhat high in terms of the percentage of registered start-ups.

So, you look at it, the start-up development is skewed in terms of certain regions, Maharashtra, Karnataka and Delhi account for double digit promotion of the total recognised start-ups whereas the other states, other seven states mentioned here have lower, lower single digit numbers in terms of proportion. It is because Maharashtra has got Pune, Mumbai region, Karnataka has got Bengaluru region and Delhi has got Gurgaon region, which serve as powerful start-up hubs.

And Uttar Pradesh has got Noida. Telangana has got Hyderabad. So, wherever the clusters of start-ups which have a start-up culture, those states have thrown in higher percentage of recognised start-ups.

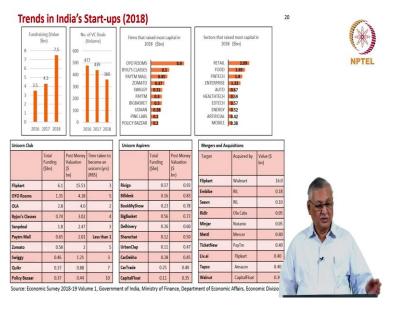
(Refer Slide Time: 18:35)



And in terms of industry percentage, 15 percent is in IT services, 9 percent is in healthcare and life sciences and 8 percent is in education. the others contribute to 3 to 4 percent in terms of finance technology, renewable energy, internet of things, technology hardware. And again, alluding to be discussion we had in another module, the trend needs to be reversed. If you look at either US or China which are higher top-ranking countries in terms of start-up evolution, much of the start-up development has been in areas of Artificial Intelligence, mobile technology, digitalization, internet of things, etcetera.

Whereas, here we are still in IT services and e-commerce, e-trade in terms of start-up phenomenon. There is therefore a need for a more secular industrial distribution in terms of start-up objectives.

(Refer Slide Time: 19:37)



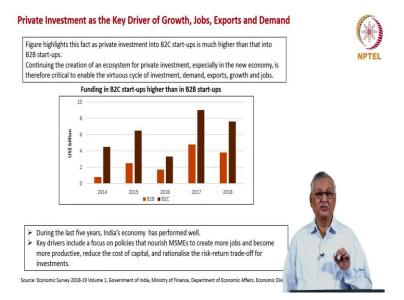
These are some of the trends in India start-up scenario, many of these trends have been considered by as in earlier chapters but this gives one, panoramic and one view, of the trends in India, start-up. The fund raising has grown phenomenally from 3.5 billion dollars in 2016 to 7.5 billion dollars in 2018.

The number of VC deals however have come down, from 477 to 360. Which means that the average tickets size has increased and there have been several companies which have raised more than 10 companies which have raised a bulk of capital. And there are also certain sectors which have aggregated for more capital than other sectors. Retail, food, Fintech, enterprise they have hogged most of the funding attention.

And there are unicorns, there are unicorn aspirers. Flipkart, Oyo Rooms, Ola, Byjus, Snapdeal, Paytm Mall, Zomato, Swiggy, Quikr, Policy Bazaar these are the unicorns whereas aspirers are more in terms of the logistics and other spaces that have come about. They also have been good number of mergers and acquisitions. Walmart taking over Flipkart, RIL taking in by Saavn, Ola Cabs taking Ridlr, Nutanix taking Minjar, Mercer taking Mettl, Paytm taking over TicketNew, Flipkart-Liv.ai, Amazon-Tapzo, CapitalFloat-Walnut.

So, there are different levels of activities which are happening, 7.5 billion dollars of money flowing into the start-up space is something phenomenal for India which is new to the start-up game.

(Refer Slide Time: 21:30)



Private investment has therefore been the key driver of growth, jobs, export and demand in the start-ups. And also, private investment into B2C start-ups is far more than the investment in the B2B start-ups. Over a period of time, you will see that B2B investments remained below 2 billion dollars in the initial years and interestingly B2B investments are gathering pace over a period of time which is a healthy sign because B2B investments indicate that B2B products which have a higher amount of technology and which could probably kick start productivity and digital revolution in other businesses, they are growing in terms of capability as well as investor interest.

Therefore, the key drivers of India's economy which is nourishing MSMEs to create more jobs and become more productive, must also have an encompassing policy for including the start-ups, the new age entrepreneurial ventures, also into such a policy framework but also see how the existing MSMEs can benefit from the start-up revolution we have in terms of new digital technologies.

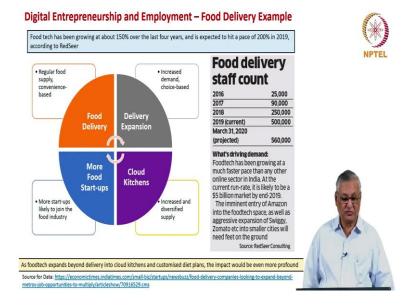
(Refer Slide Time: 22:47)



So, what are the kinds of firms the policy should look at? There are different kinds of firms and firms with low employment, we thought about them and firms with high employment, we had the data from MSME sector, we have high growth firms with moderate employment but what the economy needs, high growth- high impact firms with high employment.

If we are able to have companies which have high level of employment potential. High level of indirect to direct potential and high level of linkages with downstream and other strategically relevant industries, then the overall employment generation would be significantly higher for such forms.

(Refer Slide Time: 23:29)



Let us take some example of how digital entrepreneurship leads to employment. When we look at today's situation, we have food delivery companies which have entered in a big way based on the digital application framework. They instead of taking the restaurant route, restaurants are being brought to homes, so food delivery comes as an option for regular food supply which is convenience based.

And this delivery gets expanded across cities. Originally it was only in the major cities now even small towns have these kinds of deliveries happening. So, increased in demand choice based. But when this food delivery gets diversified into establishment of cloud kitchens which will have their own characteristic models of recipe preparation and also quality assurance, we are taking the food delivery to a higher level.

And that, when that is further complimented with customised nutrition plans which ensure that healthy food is served to different strata of population. Then there would be an additional potential for newer food start-ups which focus on this kind of end to end food supply and consumption pattern in the overall population. So, when we look at the current food delivery, from 2016, we just had 25000 employee strength.

And when we say employee strength, it includes the delivery fleet as well. It has phenomenally grown over the last 3-4 years to five hundred thousand. And it is projected that the March 31, 2020, there would be 560 thousand employees just in the food delivery area. Food technology has been growing at a much faster pace than any other online sector mainly because of the choice that is provided because of the 24/7 nature of the operation.

And it is likely to be a 5-billion-dollar market and the entry of companies such as Amazon into this space is likely to lead to further expansion in the food delivery. And aggressive expansion of Swiggy and Zomato into smaller cities will also ensure that there are more feet on the ground. But again, as we discussed earlier, it is a service industry, it is not likely to take India on the, on to the top-class cluster in terms of entrepreneurship which is technology driven.

So, we require these things, we require employment created by these kind of ventures or also we need an employment created out of technology-based ventures.

(Refer Slide Time: 26:27)



So, digital entrepreneurship and employment have had the biggest success in the e-commerce base in India. In 2016, financial year, 23 billion dollars has been the estimated e-commerce business in, in India. This is expected to reach 69 billion dollars in 2020. That is in 4 years, the growth is likely to be 3 times. That is the estimate of e-commerce and the compound annual growth rate is as high as 31 percent and the potential to create jobs is very high.

1.4 million jobs are likely to be created by 2021. Which also includes 1 million jobs in logistics and warehousing sector. Again, looking at it, from the point of view of manufacturing products, the proportion in the additional jobs that are getting created is only 33 percent. The bulk of the jobs are getting created in delivery in terms of warehouse.

So, the question that arises, if you really look at the Foodtech. In example, we have seen, and in the e-commerce example which you are now seeing, are we going to have a manufacturing oriented economy or are we going to have a delivery-oriented economy? And what are the bets we should place in terms of entrepreneurship? Is it just to kind of make the people less mobile and the products more mobile or do we need to make entrepreneurship an engine of growth in high technology areas?

Where do we have the balance between gross employment numbers that this kind of activities generate versus the global competitiveness and therefore greater sustainable industrial wealth that high technology entrepreneurial enterprises can generate. It is again a question for research and the online, reverting to e-commerce situation. Online seller base is projected to grow to 1.3 million by 2020 and will also contribute as much as 10 million net job pool to the overall employments' situation.

And with about 70 of e-commerce taking place from interior towns. E-commerce entrepreneurship will also have a diversified socio-economic impact. So, the positive impact in terms of consumer satisfaction and in terms of employment generation, in terms of socio-economic equity of e-commerce is undisputed. This was a thing which has to happen and it is good that it has been happening. But it also came with certain other deficiencies which we discussed earlier.

Like huge spurt in the packaging material that is used. The huge spurt in fuel cost that has come about. The distancing of, the goal of circular economy through these kinds of consumption driven activities we have discussed these in earlier modules and like with all our economic choices, the right choices have to be made, even that we all have huge number of options to chose from.

So, which is the right mix that drives as towards a sustainable and circular economy in the overall and which also provides gainful employment to the maximum number of people in fact to the full number of people. That is the economic challenge we have and again to stay within the e-commerce ambit for every job that is created by the e-commerce industry. Three to four jobs can easily get created in the downstream industries.