

Business Data Management
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Introduction to the manufacturing sector

Professor G Venkatesh: We are now moving to the second case study which is going to focus on the manufacturing sector. And for this case study we are fortunate to have Shiv Kumar, who is the managing director of Astra Zeneca in India. And Shiv has a very long background in consulting, and knows the manufacturing industry very well. He will speak a little bit about what he has done so far, and help the students understand the background so that they have the context.

Mr. Siva Kumar Padmanabhan: Thank you very much. I am delighted at this opportunity to be part of this session. I started my career in consulting after I finished my MBA a very long back. And I worked in consulting for about 10 years, with Indian and US companies, many of them in the manufacturing industry. And I always feel kind of very close to that industry and so on since I started my career there.

Since then, I have done several stints in different companies in healthcare, high-tech and so on. And over the last 10 years or so, I have been working in multinational companies, which have in-house centers in India, basically leveraging the power of what we have in India, the people, the knowledge, the expertise, the skills in a global sense.

Professor G Venkatesh: Generally, manufacturing as a sector, I think many students may not know the sector that well. What differentiates manufacturing sector or what kind of industries would you call manufacturing industries? And what differentiates those companies from other companies?

Mr. Siva Kumar Padmanabhan: If you look at several of the advanced economies around the world, they have a very strong base in manufacturing. Although, if you look at the share of the GDP over time, manufacturing is not that high in many countries, but that is the sector that produces all the products that we touch, feel and use every day.

Whether it be a car, whether it be a cookie or a computer or a whole range of different things that we use every single day. Whether it be an iPhone, all of that comes from the manufacturing industry. It forms an important foundation for the economies of any country in the world and every country is very keen to broaden and deepen its manufacturing sector.

Another reason for this is because it provides employment at a very high scale. The manufacturing industries can employ several people in a very productive fashion in high quality jobs. It is a very important cornerstone of the economy of many countries.

Dr. Milind Gandhe: When you think about capturing shift with, I think most common people think of China and Germany. What is the kind of picture in India?

Mr. Siva Kumar Padmanabhan: As we all see in in the newspapers and so on there is certainly a lot of emphasis on manufacturing sector in India. At the time of independence. I think we laid the foundation for this industry by the government having a very large presence in core sectors, such as, oil and gas or mining of metals or making steel and some of those foundational industries. That has really helped us lay a strong foundation, but since 1991, when the economic liberalization happened, we have had the private industry really being unshackled to be able to grow and expand and create a lot of value in this sector.

We are a very significant player in the manufacturing industry around the world. Although, not in the league of China at this point, but we have a lot of emphasis to increase that. Our manufacturing industry is very broad based. We make virtually a whole host of different things, whether it be more labor-intensive things like handicrafts or leather or more mechanized items, such as cars, and food and those types of things. We have a very diversified manufacturing industry which is set to grow, and the government policies are also promoting and helping this industry a lot.

Professor G Venkatesh: When we buy refrigerators, ceiling fans, televisions, cars, and so on. These products, basically, when we think about manufacturing, these are the kinds of products that come to mind, but the manufacturing industry is not just those products that are sold to consumers. Presumably products that are sold to other companies. Like cars consume, products of manufacture. In fact, the case we will be looking at is one step removed from consumer. Sir, can you speak a little bit about this, this chain of supply chain of companies that basically constitute the manufacturing industry?

Mr. Siva Kumar Padmanabhan: I think that is a great point. And if you see, I think, as you said, we call it the value chain, in consulting terminology or just industry terminology is the value is added in a chain, bit by bit. When you see the finished product, let us say a car that we go and buy it is got a thousand of components sub-assemblies, we call it sub-assemblies and components.

If you break down a car, you see there is an engine inside. There is another very important part called the transmission, which we are going to deep dive today. And then there is of course, the tires, the seating the chassis. Now, if you take one part of that, let us say the engine and investigate that, now that has again, got several assemblies, like you have a cylinder, the pistons, all these different things that go into it.

And if you go further back, all of this is made, many of the parts are made from steel, which again, is it is an industry that takes the iron ore and converts it to steel. So, if you start from the iron ore, there is a mining industry that is extracting it. And then if you look at the steel industry, it is converting the ore into steel. And then the kind of the forging industry is taking that steel and creating precision parts out of it.

And then you have further assembly industry that takes these parts and puts them together into an engine. And finally, you have the final assembly of manufacturing, which puts everything together and creates a car, and so on. It is a whole chain of value that gets added little by little to the extent that finally you have a product that is very useable, very friendly, very well finished and so on, but if you go backward, there is such several steps that go into that chain.