

Business Data Management
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Lecture 1
Industry Definition

Professor M Suresh Babu: So, we have been talking about firms mostly and trying to see performance of firms. Then also try and understand behavior of firms in different markets using data. Now, the next level of analysis is to see industry wise performance.

Professor G Venkatesh: How to describe an industry? What is an industry?

Professor M Suresh Babu: Industry is a collection of firms. Definition of industry is quite vague in terms of different countries' context as well as activities. So, our first task then would be to define an industry and classify the firm. So, the important thing is to develop a taxonomy in terms of how we can actually call something an industry

Professor M Suresh Babu: Activities can be clubbed into an industry.

Professor G Venkatesh: Presumably the firms need to have something in common

Professor M Suresh Babu: Either output in common or input in common or some common denominator should be there.

Professor G Venkatesh: Some pattern.

Professor M Suresh Babu: So, what we shall do today is a classification of industries in the Indian context basically. Then we will also see what are the data sources, when we want to look at industry level analysis.

Now, industry level analysis is very important because broad economic growth projections use industry level data. Second thing, from an investor's point of view, industry level data is actually used for future investments, sectoral policy decisions.

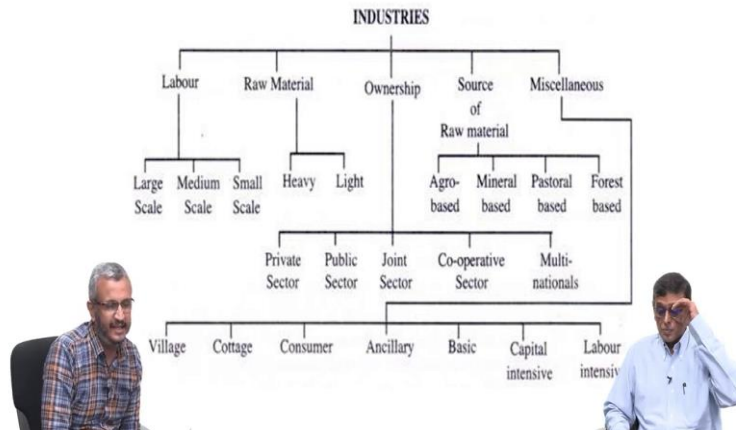
Professor G Venkatesh: Sectoral policies.

Professor M Suresh Babu: Very important policy.

Professor G Venkatesh: Very important.

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Industries can be classified into several groups. The following figure gives an understanding about them.



Professor M Suresh Babu: Now, basically, in the Indian context industries are classified under five broad heads. One in terms of labour, the use of labour; second in terms of the use of raw material; third ownership which is very important; fourth the source of raw material, from where are you getting the raw material.

Fifth, we club everything into a miscellaneous category. We will go one by one. Now in terms of labour, the most straightforward classification is in terms of large, medium and small. Now here we found that there are lot of definitional changes that have taken place over a period of time.

Professor G Venkatesh: So, large, medium and small is labour related? It is not revenue related?

Professor M Suresh Babu: It is not revenue related.

Professor G Venkatesh: It is the number of employees.

Professor M Suresh Babu: It is in terms of number of employees. Now off late there is a kind of discussion where we should bring in the concept of capital investments. So, now the new definitions, especially in the context of small scale industries, uses both capital as well as labour. In the most recent part, as a part of the recent Atma Nirbhar reforms, we have also introduced turnover.

Professor G Venkatesh: Turnover means revenue.

Professor M Suresh Babu: Because in services and in smaller firms, there is a possibility that turnover could be used as a kind of an indicator. So, conventional bunching of industries into large, small and medium is in terms of labour.

Professor G Venkatesh: How many people you have employed?

Professor M Suresh Babu: Yes, how many people have been employed. In terms of raw material, the classification is heavy industries or light industries. We will come to that in a minute

Next, ownership is very important in Indian context, because we have a very interesting mix of ownership. Of course, industrialization was started, it was a situation where government owned public sector. Government owned thrust towards public sector. Then, after the 1991 reforms, there was a shift towards emphasizing the private sector.

Professor G Venkatesh: Private sector means the ownership is with some private individuals.

Professor M Suresh Babu: Private entities, individuals and there is a huge kind of classification in terms of private firms itself.

Professor G Venkatesh: But, you can have a combination.

Professor M Suresh Babu: Various permutations and combinations can come here. We would get into the details of ownership in that level, but private sector is a dominant category. Then we have a joint sector, which is unique.

Professor G Venkatesh: So, which is bigger? Private sector or public sector is bigger in India?

Professor M Suresh Babu: Now off late private sector is bigger

Professor G Venkatesh: In the 80s, it would be?

Professor M Suresh Babu: It was dominated by the public sector. And that is the story of economic reforms.

Professor G Venkatesh: Reforms in the last 30-40 years.

Professor M Suresh Babu: Yes, reform. Because we can find that from a public sector dominated or public sector oriented industrialization, we have moved to a private sector oriented industrialization.

Professor M Suresh Babu: Now the unique thing about India is its joint sector. Because India is a mixed economy. In a mixed economy, there is very important roles for market mechanism as well as for planning. There is also a new entity called the joint sector, where there is a partial ownership with the public and the partial ownership with the private. This arises to a new kind of terminology, called as public private partnerships, the PPP mode.

Professor G Venkatesh: Yes, public private partnerships, the PPP mode.

Professor M Suresh Babu: PPP mode have become very prominent in recent times. Then of course, cooperative sector is also becoming another important kind of an entity now. Finally, there is multinational corporations.

Professor G Venkatesh: There are these intermediaries like build, operate and transfer schemes, where it begins from firm type, then goes to the private and then it might come under public ownership.

Professor M Suresh Babu: But that mostly comes in joint sectors. Because initially it is an agreement that for two years you will be having complete ownership, then you will transfer that. It is all contractual agreements, in that sense.

Professor G Venkatesh: Yes, contractual agreements.

Professor M Suresh Babu: So, we find that in terms of ownership, we have these categories of private sector, public sector, joint sector, cooperative sector. And finally a large segment that is growing now is the multinational companies. Now, multinational companies are very important, because, they bring in FDI as well as a whole lot of benefits associated with that. And this cannot be clubbed with the rest of the entity. So, that is why we are keeping it as a separate entity.

Professor G Venkatesh: So, multinationals are foreign firms which have ownership of companies in India. Is it 100 percent owned or partly owned?

Professor M Suresh Babu: The conventional definition is anything that is more than 10 percent ownership is a multinational company.


Professor G Venkatesh: So, any foreign firm that owns more than 10 percent of an Indian company is multinational

Professor M Suresh Babu: Yes, if it owns more than 10 percent of an Indian entity, then it is termed as a foreign firm. And it should have operations in more than one country.

Professor G Venkatesh: Okay, more than one country.

Professor M Suresh Babu: Next, the miscellaneous category is very important for India, because we have a large number of village, cottage industries and ancillary. We will quickly go through these industries to have an idea as to what is the kind of definition of industry that is used in different contexts.

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Large Scale Industry:

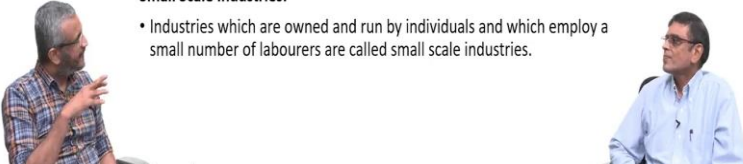
- Industries which employ a large number of labourers in each unit are called large-scale industries. Cotton or jute textile industries are large scale industries.

Medium Scale Industries:

- The industries which employ neither very large nor very small number of labourers are put in the category of medium scale industries. Cycle industry, radio and television industries are some examples of medium scale industries.

Small Scale Industries:

- Industries which are owned and run by individuals and which employ a small number of labourers are called small scale industries.



Now, why do we have multiple definitions is very important to understand, because multiple definitions arise from different kinds of regulatory regimes that we have.

Professor G Venkatesh: So, the same company might be actually part of different industry classifications. It could be classified as a medium scale heavy industry or a large scale light industry?

Professor M Suresh Babu: Yes. Because of the different regulatory requirements.

Professor M Suresh Babu: And that was one of the major problems that was encountered when we were opening up the industrial sector for private players to come into play. Conventionally by large scale we mean, there are large number of labourers. In India, it started off with cotton and jute as the large scale industries, historically independence and pre-independence time onwards. Later on other large scale industries came under the public sector

Professor G Venkatesh: Steel, for an example.

Professor M Suresh Babu: Yes, steel and other many under the public sectors' initiative schema. Medium scale industry is very important component in Indian context because they are neither very large nor small, they are in the middle. Now, we do not have much of medium scale industry in India.

Professor G Venkatesh: We do not have?

Professor M Suresh Babu: No, we do not have much and that is a very unique phenomenon in India. We call it as the "missing middle".

Professor G Venkatesh: Some countries have a lot of middles?

Professor M Suresh Babu: Some countries have a lot. Especially the East Asian and the European economies have large number of this medium scale industries. They call it SMEs meaning small and medium enterprises.

Professor G Venkatesh: We have the missing middle

Professor M Suresh Babu: Yes, we have the missing middle phenomena.

Professor G Venkatesh: We either have small enterprises or very large.

Professor M Suresh Babu: Because of this, one of the issues that we encounter when we look at industrial growth, employment generation is missing. Because ideally employment generation is coming from this middle enterprises and that is missing. Smaller industries, it is run by individuals, so doesn't contribute that much to employment generation.

Professor G Venkatesh: Also, medium scale industries create local employment. Because in large scale industries, you can only have a few of the local people. So, the labour will have to travel to work in these large scale industries. Whereas in the medium scale industries, like in Europe, it will be in their local villages or regions. So, they generate employment locally.

Professor M Suresh Babu: Locally. The classic example of this is the town and village enterprises of Chinese economy earlier, that absorbed the local labour and created local linkages with the local economy and small scale industries,

Professor G Venkatesh: So, typically a small scale industry would have how many enterprises 5, 10, 15 or many more?

Professor M Suresh Babu: So, earlier our definition was less than 20 people.

Professor G Venkatesh: Less than 20 people?

Professor M Suresh Babu: Less than 20 people without power or less than 10 people with power. Then it is thought that the role of investments should also be brought here. So, we set the upper capital as 25 lakhs, 50 lakhs, 1 crore or 2.5 crores overtime. The economy is undergoing changes overtime, so the upper cap for investments also changes. Now, the most recent kind of a change in terms of definition is to bring in turnover to define a small scale industry and that is where large number of service sector entities also become crucial in this segment.

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Heavy Industries:

- Industries which use heavy and bulky raw-materials and produce products of the same category are called heavy industries. Iron and steel industry presents a good example of heavy industries.

Light Industries:

- The light industries use light raw-materials and produce light finished products. Electric fans, sewing machines are light industries.

Private Sector Industries:

- Industries owned by individuals or firms such as Bajaj Auto or TISCO are called private sector industries.

Public Sector Industries:


- Industries owned by the state and its agencies like Bharat Heavy Electricals Ltd., or Bhilai Steel Plant or Durgapur Steel Plant are public sector industries.



Joint Sector Industries:

- Industries owned jointly by the private firms and the state or its agencies such as Gujarat Alkalies Ltd., or Oil India Ltd. fall in the group of joint sector industries.

Co-operative Sector Industries:

- Industries owned and run co-operatively by a group of people who are generally producers of raw materials of the given industry such as a sugar mill owned and run by farmers are called co-operative sector industries.



The second thing we talked about was heavy industries and light industries. Bulky raw materials are used, for example iron and steel, in heavy industries. We have been talking about cement in our firm level analysis.

Professor G Venkatesh: That is a heavy industry.

Professor M Suresh Babu: Light industries use light finished products like electrical fans, sewing machines.

Professor G Venkatesh: Textiles would be light industries?

Professor M Suresh Babu: Textile machinery is heavy industry and readymade garments is light.

Professor M Suresh Babu: So, that is where the classification becomes very important. Then in terms of ownership, we have a private sector, public sector, joint sector. We talked about

that. For examples, Bajaj Auto or TISCO typically come under private sector. BHEL or BEL or BML or HMT come under public sector.

Professor G Venkatesh: Next, under joint sector, Maruti can be an example.

Professor M Suresh Babu: Gujarat Alkalies or Oil India Limited, all these come under joint sector

Then finally, there is the cooperative sector which is run by a set of people, a cooperative entity.

Professor G Venkatesh: Amul is an example.

Professor M Suresh Babu: Amul is a classic example of this and a large number of sugar producing cooperatives.

Professor G Venkatesh: Sugar tends to be fully cooperative, more or less.

Professor M Suresh Babu: So, that is classification on the basis of ownership.

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On the basis of source of raw materials, industries are classified as under:

1. Agro Based Industries:

Agro based industries are those industries which obtain raw-material from agriculture. Cotton textile, jute textile, sugar and vegetable oil are representative industries of agro-based group of industries

2. Mineral Based Industries:

The industries that receive raw materials primarily from minerals such as iron and steel, aluminium and cement industries fall in this category.

3. Pastoral-Based Industries:

These industries depend upon animals for their raw material. Hides, skins, bones, horns, shoes, dairy, etc. are some of the pastoral-based industries.

4. Forest Based Industries:

Paper card-board, lac, rayon, resin, tanning of leather, leave- utensils, basket industries are included in this type of industries.



Now, in terms of raw materials, we have agro based, mineral based, pastoral based and forest based industries. Now, this is very important in terms of our planning system, because of allocation of resources. On the basis of allocation of resources, classification becomes very important. So, typically, mineral based industries play very important in this because of extraction process involved, How much should be extracted?

Professor G Venkatesh: There is scarcity also.

Professor M Suresh Babu: There is scarcity, there are questions about sustainability, but at the same time that goes as an input for another industry. So, we should have an optimal level of extraction. So, that is why the raw material based classification becomes very important. Under agro based classification, examples can be cotton textiles and jute. Mineral based examples can be iron and steel. Pastoral based are basically hides and skin and very important in India because one of our important component in exports is hides and leather.

Professor G Venkatesh: We have a very, very high cattle stock. Our cattle stock is amongst the highest in the world.

Professor M Suresh Babu: Yes, very high and we are one of the world's leading raw leather exporters. So, that is why pastoral based industries are very important. Forest based examples are lac and rayon etc. which also are important in the Indian context.

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Village Industries:

- Village industries are located in villages and primarily cater to the needs of the rural people. They usually employ local machinery such as oil extraction, grain grinding and agricultural implements.

Cottage Industries:

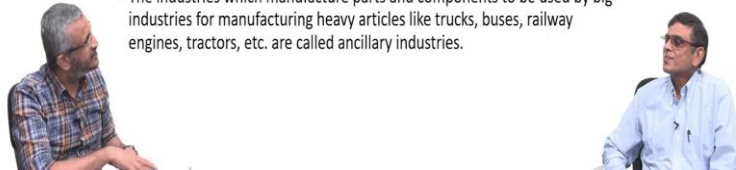
- Industries which artisans set up in their own houses, work with wood, cane, brass, stone, etc. are called cottage industries. Handloom, khadi and leather work at the artisans house fall in this category.

Consumer Goods Industries:

- Consumer industries convert raw materials or primary products into commodities directly used by the people. Textiles, bakeries, sugar, etc. are some of the consumer goods industries.

Ancillary Industries:

- The industries which manufacture parts and components to be used by big industries for manufacturing heavy articles like trucks, buses, railway engines, tractors, etc. are called ancillary industries.



Then we have a whole lot of miscellaneous definition that comes in with village industries.

Professor M Suresh Babu: Because there is a department for Khadi and village industries specially. Talking about the historical evolution, when we had the planning process, we allocated resources for heavy industries. But planners also thought that we should not give less importance to village industries. So, village industries were also given a lot of concessions and access to resources. So, village industries become very important. Oil extraction was a major kind of a village industry at some point.

Professor G Venkatesh: Yes, extracting vegetable oil using Chakkis,

Professor M Suresh Babu: And then cottage industries ofcourse. Handloom, khadi and related things emerged as cottage industries.

In terms of modern classifications, we have consumer goods and ancillary industries.

Professor G Venkatesh: What is ancillary? We know about consumer goods.

Professor M Suresh Babu: Consumer goods are typically bakeries and textiles etc. Ancillaries are industries where they make parts and components and these parts and components go into the production of other things which are bigger.

Professor G Venkatesh: Other things, like automobile. So ancillary industry in this context can be of some company that makes a tire.

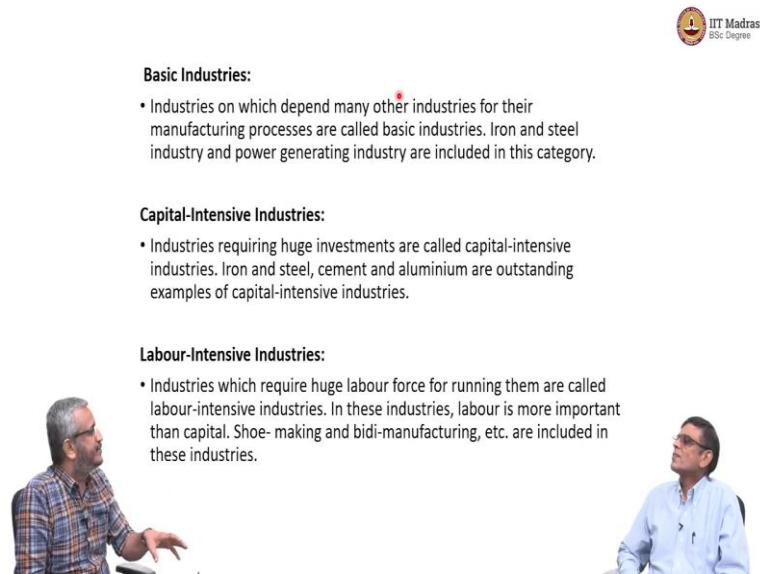
Professor M Suresh Babu: Yes, which goes to the trucks or buses or the big industries. Now, this is very important in the Indian context again, because it is just ancillary industries that finally feed to the large industries. Generally the small and medium enterprises tend to


operate in the ancillary industries. So, if you do not have that middle path, then the inputs that are required for the heavy industries will face a problem.

Professor G Venkatesh: We will have to import it.

Professor M Suresh Babu: Yes, we will have to import it and that is one of the problems which we see in the Indian context.

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Basic Industries:

- Industries on which depend many other industries for their manufacturing processes are called basic industries. Iron and steel industry and power generating industry are included in this category.

Capital-Intensive Industries:

- Industries requiring huge investments are called capital-intensive industries. Iron and steel, cement and aluminium are outstanding examples of capital-intensive industries.

Labour-Intensive Industries:

- Industries which require huge labour force for running them are called labour-intensive industries. In these industries, labour is more important than capital. Shoe-making and bidi-manufacturing, etc. are included in these industries.

In terms of an alternate classification, again we have basic industries, capital intensive and labour intensive industries. It is a straightforward classification.

Professor G Venkatesh: We have seen it already that textile and cement is capital intensive.

Professor M Suresh Babu: Textile, cement, iron and steel is capital intensive. Examples of labour intensive industry can be textile industries. Basic industries, is very important, because the value addition in terms of production process is not very high. Because there is only one kind of a process happening.

Professor G Venkatesh: That is why you call it basic?

Professor M Suresh Babu: Yes, that is why it is basic. You are having only one kind of a process, further value addition is not taking place. So, this is very important. Because if an economy focuses on this kind of industries, then the prospects for growth is also limited. Ultimately it is the value addition that finally creates growth. But these are very important for the economy at large, because a lot of important industries like iron and steel are basic industries.

Professor G Venkatesh: But of course today steel industry has become specialized. When you make specialized steel, there are value additions that can happen in steel industry

Professor M Suresh Babu: That is at the finishing product end, but the iron part of that is still very, very basic.

Professor G Venkatesh: Yes, still very basic.