Business Development From Start to Scale
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Week - 03
Industry Structure and Company Analysis
Lecture - 12
Porter's Five Forces Theory

Hi friends, welcome to the NPTEL course Business Development from Start to Scale. We are in week 3 with the theme of Industry Structure and Company Analysis. In this lecture the 12 in the series we focus on Porters Five Forces Theory.

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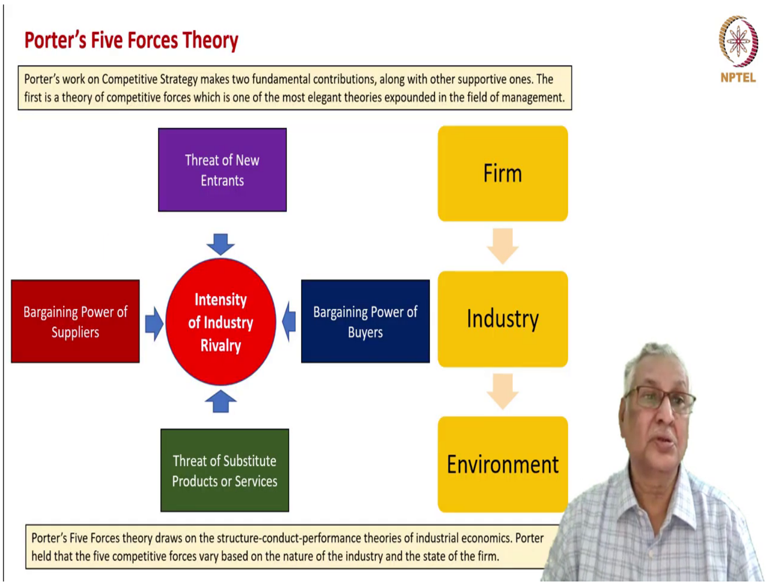

Professor Michael Porter's Five Forces Theory is a subset of the theory of competitive strategy which he has drawn up in the 1980s. The theory of competitive strategy makes two fundamental contributions along with several other supportive ones. The first is a theory of competitive forces which is one of the most elegant theories expounded in the field of management.

The other is the theory of generic competitive strategies which we will cover at a later part in this course. There are five forces according to Professor Michael Porter in operating in any industry. The first is the threat of new entrants, the second is the bargaining power of buyers.

The third is the threat of substitute products or services, and the fourth is the bargaining power of supplier, the fifth being the intensity of industry rivalry. Whenever industry provides attractive returns or whenever an industry is seen to offer future potential new entrants come into the industry all the while.

To take an example, Maruti Suzuki was a dominant force in the Indian passenger car market that was in the late 1980s and early 1990s. However, several companies entered the Indian Automobile Industry seeing the success of Maruti Suzuki as well as the rapid growth of the Indian market. So, this threat of new entrants would definitely occur in all industries which provide good returns or promise good returns in future.

The second force is the bargaining power of buyers, any company exists to serve the buyers. But, at the same time the buyers individually or collectively exert bargaining power over the supplier by either asking for different kinds of price value equation or asking for higher level of supplies or simply switching between one supplier to the other.

This bargaining power of buyers could vary between the consumer markets and the business markets. The third force is the threat of substitute products or services, now and then new technologies enter the field and those new technologies make the other products that have been existing for years obsolete.

Telex has been made obsolete by Telefax and Telefax has lost its relevance with the new generation all in one computers. There are several examples of this kind of substitutes occurring in an industry and obliterating the old industrial equations. The fourth is the bargaining power of suppliers; vendors are a crucial input for any manufacturing value chain.

If the vendors do not supply products in time or of required quality, the bargaining power of supplier will increase. All these four forces work together and the intensity of industry rivalry is impacted the more the number of players in an industry. The more the competition amongst, the players the more would be the intensity of industry rivalry.

The firm which is a part of the industry and the industry which is a part of the environment are all together impacted in terms of the competitive forces. What is Five Forces Theory draws on the structure conduct performance relationship that has been exposed in the theories of industrial economics?

Porter held that these five competitive forces may vary based on the nature of the industry and the state of the firm, but they occurred nevertheless in every industry and impact every type of firm.

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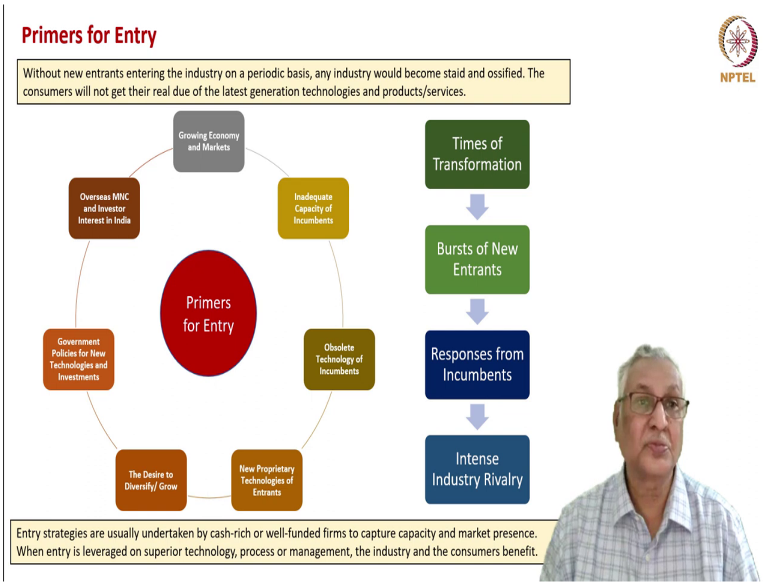

Why do people enter an industry? Why do promoters decide to enter an industry which has already been occupied by existing players? Definitely there are certain primers for entry into an industry, without new entrants coming into the industry an industry will become rigid ossified and even obsolete.

The consumers will not get real benefit of an industrial development if the latest generation technologies are not brought in by the latest entrance to the industry. So, what are the primers for entry? The first is the growing economy and markets which offer significant scope for upward growth in the industry production and sales.

The second is the inadequate capacity of incumbents; there is demand, but the existing players are unable to provide the products or services therefore, there is definite demand supply gap. The third one is absolute technology of incumbents; it is not that all the players who wanted to enter an industry have been able to enter an industry at the same time.

Therefore, there are always opportunities for the people who have been waiting to enter the industry to leverage the obsolescence of the incumbents. And enter into the industry and that gives them greater chance to grow in the industry despite there being late entrants. The entrants themselves may possess new proprietary technologies which could mean significant competitive advantage.

As an example, if a particular Smartphone maker is able to come in with display technology that is far superior or with camera capability that is far superior. It provides a proprietary technological edge which could enable an entry, even though the company could be led to the smart phones party.

Simply speaking the desire to diversify grow could be primer for entry and existing firms could also try to diversify through new entrants of subsidiary formation or joint ventures. Other companies may come in afresh into the industry. Government policies for new technologies and investments could be another trigger for entry.

Overseas MNCs and investors show lot of interest in India and that leads to capital formation and new engine formation in India. More particularly multinational companies which have seen saturated markets in their home territories would like to enter an emerging market such as India and become market fulfilling and therefore, volume expanding with respect to their firms ambitions.

So, in any industry there will be times of transformation, there will be bust of new entrants entering the industry, there would also be responses from the incumbents and that would lead to intense industry rivalry. Entry strategies are usually taken by cash rich or well funded firms to capture capacity and market presence.

Companies which are not so well endowed may be supported by private equity investors and other investors to capture the markets place.

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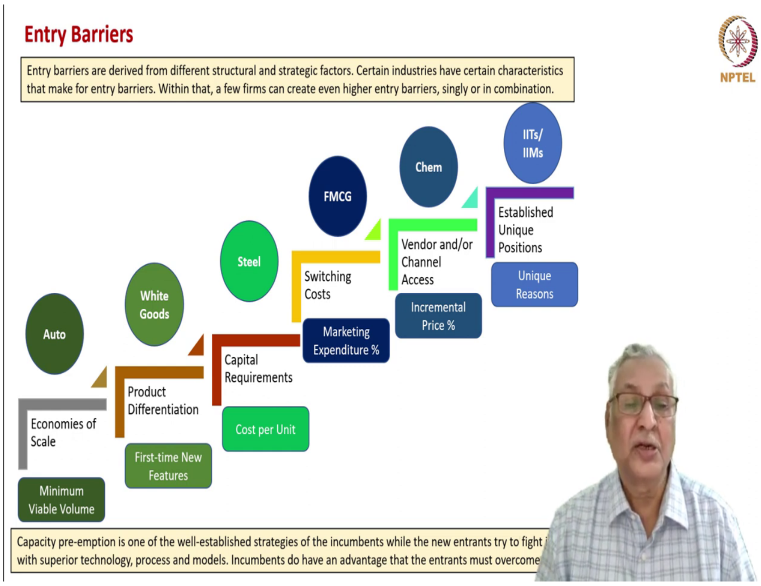

When entry is leveraged on superior technology process or management the industry and the consumers benefit. So, the threat of new entry could be a threat to the firm, somewhat a destabilizing force for the industry, but generally it works out in favour of the consumer and the marketplace.

If entry is so important, is it possible for each and every company to enter into an industry? No, it is not so easy. In this context the concept of entry barriers becomes very important. What are entry barriers? Entry barriers are those barriers that are derived from certain structural and strategic factors that are very peculiar to the industry or that are very characteristic to the industry.

Certain industries have got certain attributes that make for entry barriers and within that a few firms can create even higher entry barriers singly or in combination. Let us look at several industries to illustrate this concept; if you take the automobile industry, economies of scale is the primary entry barrier.

Any automobile manufacturer will be viable only when a minimum viable volume is achieved. In respect of passenger cars 1000 passenger, cars per annum is a minimum viable volume. In respect of utility vehicles you need to produce around 50000 vehicles to be viable.

In respect of two wheelers you need to produce maybe 200000 or 300000 two wheelers to be viable. So, every segment of the automobile industry has a level of minimum viable volume which is the economies of scale. For a newcomer to enter the automobile industry successfully, the company must be able to come in with a capacity that is higher than the minimum viable volume and also we able to sell that capacity to the marketplace.

Let us take the example of white goods that is products that are in the classification of refrigerators, air conditioners, kitchen appliances, kitchen hobs etcetera. In this case the product differentiation serves as the primary entry barrier. Companies which have been able to bring in new features for the first time and have been able to defend their market share direct entry barriers.

Dyson is a great example of product differentiation; it has used product differentiation to enter the crowded vacuum cleaner market and also used it as an entry barrier to stop any company moving into its domain. In respect of steel, the capital requirements are the entry barrier. Steel manufacture is a highly capital-intensive activity the cost per unit of steel making is the entry barrier; so, not every company can enter the steel industry.

It is similar in respect of the cement industry as well the capital expenditure per unit of steel production is important in steel industry. Similarly, the capital requirement in respect of one metric ton of cement is important in respect of the cement industry. Therefore, there are certain industries where cost per unit acts as the entry barrier.

In the case of Fast-Moving Consumer Goods Industry, the switching cost or the marketing expenditure per product line acts as the entry barrier. With respect of Chemical Industry, the vendor and or channel access and the incremental price percentage for every incremental output level acts as the entry barrier.

In respective of educational institutions such as IITs and IIMs Established Unique Positions, Unique Academic reasons the placement capability all of these things act as entry barriers. Because, these entry barriers exist and because most of these entry barriers are linked to the capacity that is established and optimally utilized.

There is always a rush amongst the incumbents to pre end the rest of the industry in terms of capacity creation. The company that has been able to create capacity ahead of others and also sell as per the capacity would certainly have an advantage in terms of consolidating within the industry and also adapt entry barriers for new players to enter the industry. Incumbents always have an advantage that the new entrants must overcome.

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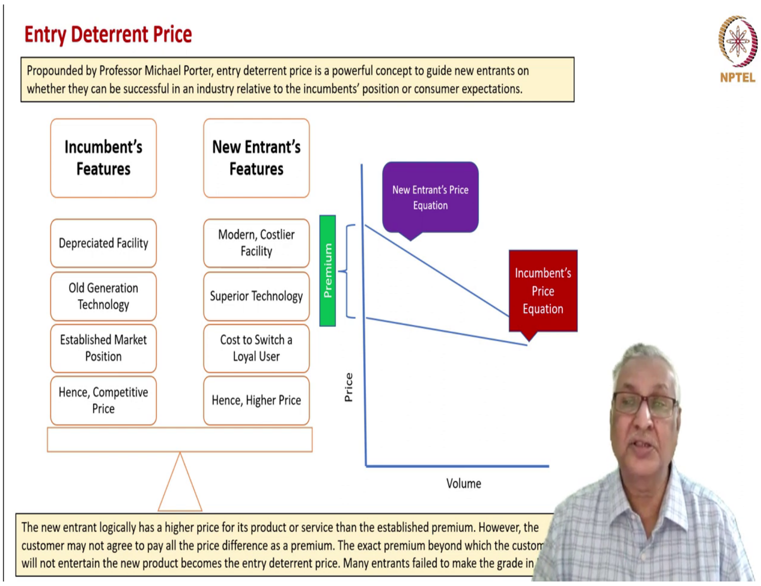

What is the concept of Entry Deterrent Price? This concept again has been propounded by Professor Michael Porter. Entry deterrent price is a powerful concept, it guides the new entrants on whether they can be successful in an industry relative to the incumbent's position or consumer expectations. Let us look at what the incumbent has in terms of the attributes?

The incumbent has a depreciated facility, he or she deploys old generation technology, the firm has an established market position, and hence the incumbent is able to offer the products at a competitive price. What does New Entrance Features Entail? The new entrance facility is likely to be modern and costlier.

The new entrant would have superior technology therefore, better customer satisfaction. There is; however, a cost to switching a loyal user from the established incumbent to the new entrant. These expenses, expenditures as well as the cost entail higher price for the new entrant’s product or service.

So, when you look at the equation of volume and price, the incumbent has a certain price equation. But the new entrant typically comes with a price equation which is higher than the price equation of the incumbent. There is therefore, a premium that the new entrant by default charges in the marketplace. If the incremental value that is perceived by the market justifies the premium, then the new entrant may enter the industry.

However, if the new entrant fails to justify the premium or if the new entrant fails to reduce the premium over time, then the new entrant is unlikely to fulfil the plant potential. There are two carriers to this; one if the new entrant is able to rapidly reduce the price, or if the features are so good that the premium is more than justified it is quite possible that the incumbent could be highly disrupted and even obliterated from the marketplace.

On the other hand, if the premium features of the new entrant are so good that the incumbent has to invest to improve its own features to extend the product life cycle. Then the incumbents price equation also will start moving up, in which case again the new entrant would have a reasonable entry and growth in the marketplace.

The new entrant logically therefore, has a higher price for its product or services than the established premium. However, the customer may not agree to pay all the price difference as a premium. The exact premium beyond which the customer is not willing to entertain the new product becomes the entry deterrent price.

That is if the new entrance cost equation or the price level is such that the price is above the entry deterrent price there is very little likelihood of the new entrant making a success of the entry into the established industry. This is the reason why many entrants fail to make the grade in India, particularly in the commercial vehicle industry where the entry barriers have been very high.

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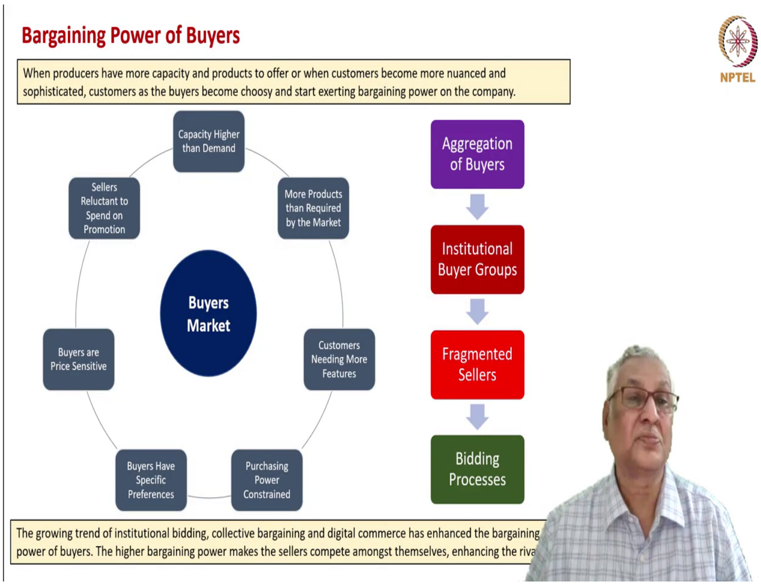

Now, let us switch to the Bargaining Power of Buyers. Bargaining of goods or services is common place. But, if the buyers have got strong capability and if the buyers exert power over the sellers, then we say that a buyer's market exists. This exists when the following conditions are fulfilled singly or in combination.

The capacity is higher than the demand, more products than required by the market are offered by the industry or the firm. The customers themselves want better features more features; therefore, they are likely to buy the dated technologies, dated products that are offered. The purchasing power of the buyers is constrained.

This happens particularly in recessionary environment when the purchasing power is deeply eroded and the products and services that are offered are not entertained by the buyers. Buyers have specific preferences which evolve over time, but the industry is unable to change its industrial line or the product line in that direction.

Buyers are price sensitive; therefore, they haggle and they take their best considerations before deciding on a purchase. Sellers are reluctant to spend on promotion; as a result, the buyers have little means of understanding what the seller's products and services be? So, when the buyers become aggregated and when institutional buyer groups emerge and when sellers become fragmented and the bidding process are adapted by the buyers.

Then the bargaining power of buyers reaches its peak. The growing trend of institutional bidding, collective bargaining, and digital commerce as well as continuous evaluation of various alternatives by individual buyers all of this together have enhanced the bargaining power of buyers.

The higher bargaining power makes the sellers compete amongst themselves enhancing the rivalry.

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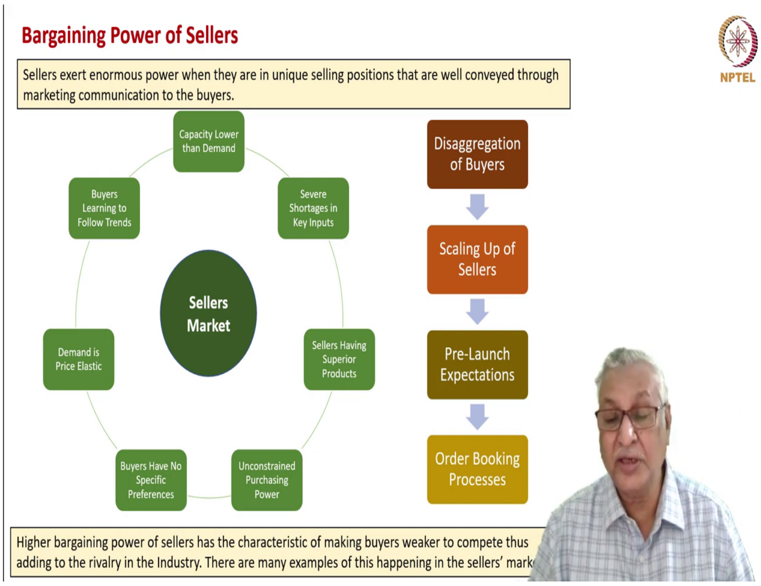

Then we have the concept of bargaining power of sellers, just as there is a buyers market there also tends to be a sellers market. Sellers exert enormous power when they are in unique selling propositions that are well conveyed through marketing communication to the buyers.

Suppose you have an Agarbatti which does not have any chemical or if you have a mosquito repellent which does not have any chemical or if you have organic food items that are well priced, but do not have any chemicals. All of these things are conditions by which the sellers could exert power over the buyers.

Typically sellers market occurs when these conditions are fulfilled. Capacity in the industry is lower than the demand that is expressed for the products. There are severe shortages in key inputs, this happened in the automobile industry when semiconductors were in short supply.

So, the companies had to ration their supplies to their buyers, ironically that also means that the semiconductor supplies had huge supplier power over the companies. Sellers have superior products which I have outlined earlier, there is also unconstrained purchasing power on the part of the buyers that is people are flushed with liquidity and flushed with funds.

Therefore, the limited number of sellers and the limited number of products cannot meet the liquidity suction. Therefore, there is a seller's market, whoever can offer the capacity sells the products; whereas, others are unable to sell and pricing is bided up because of this.

Buyers have no specific preferences in which case sellers have the ability to toggle between the buyers. Demand is price elastic that is if the price is decreased; the demand would go up, in which case the sellers by manipulation of the price towards the lower end can match it up the demand. Or they can increase the price and make the demand of artificially depressed.

And the buyers are learning to follow trends, but they are not selling the masters of the trends, there again the sellers hold this way over the bias. So, as an environmental theme disaggregation of buyers, that is the opposite of what happened in the earlier situation. For buyer power to be very strong there should be aggregation of the buyers.

But if the buyers are individualized and there is disaggregation of buyer power then the bargaining power of sellers increases. If the sellers are able to scale up to meet the requirements of the buyers, then the bargaining power of sellers increases. If there are huge pre launch expectations, then there is that much extra demand for the seller's products.

This happens when pre orders are generated, when advance booking is made for movies, there is this expectation syndrome that happens and that increases the demand. And when there are order booking process which give it the view that this item is going to be in short supply then the sellers tend to call the shorts.

Of course, the products have to justify the kind of expectation that has been whipped up in the marketplace that is not justified of course, the bubble will burst. Higher bargaining power of sellers has the characteristic of making buyers weaker to compete, thus adding to the rivalry in the industry. There are many examples of this happening in the seller's market.

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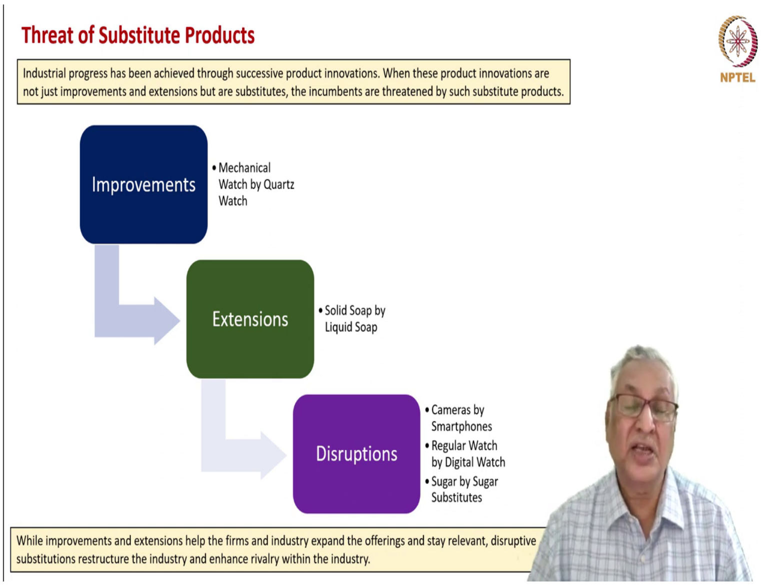

Threat of Substitute Products, this is another important factor. Industrial progress as we all know has been achieved through successive product innovations. Every now and then new technology comes, creates new products and the world products are moved away from the mainstream.

When these product innovations are not just improvements and extensions, but are substitutes the incumbents are threatened by such substitute products. There are three types of substitute products; one strong improvements over the existing products mechanical watch getting replaced by quartz watch.

Except the mechanism of time movement everything else remained the same, but the watch itself has been substantially improved. Extensions that is a solid soap has been converted into a liquid soap with attendant benefits that is a substitute product for the soaps which are in the bar form.

Then disruptions that is cameras have been disrupted by Smartphone's which also had camera features. Regular watches have been disrupted by digital watches and sugar has been disrupted by sugar substitute. Improvements and extensions help the company extend the product life cycle.

These help the firm expand its offerings industry to consolidate itself better and stay relevant. But disruptive substitutions restructure the industry they threaten certain firms which are not up to date very strongly and enhance rivalry within the industry.

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There has been an endless array of game changing substitute products over the last several years. In fact, over the last 20 years, the array of game changing substitute products and services have been powered by continuous technological disruptions more so in recent times by digital technologies. They are so well learnt to us that they need little repetition; however, let us look at these examples.

Human surgery is getting replaced or substituted or supplemented by robotic surgery. So, a hospital which has got robotic surgery capabilities is likely to disrupt the industry structure of traditional surgical hospitals. Metal removal as a concept is getting replaced by additive manufacturing or 3D printing.

Office work is getting replaced by Google meet, internal combustion in automobile is getting replaced by electric automobile, currency coin could be replaced either by digital currency or by crypto coin. Airlines are likely to be disrupted not immediately, but sometime in future by space six kind of returnable rockets.

Thermal energy is replaced by clean energy, bullet train is replaced by hyper-loop, tower telecoms are going to be replaced by satellite telecom. While disruptive changes have been there all through the industrial revolution from the first to the fourth. The pace depth and extent of the disruptive changes backed by financial resources are very unique to the fourth industrial revolution and they are going to have a overwhelming influence on strategy and structure.

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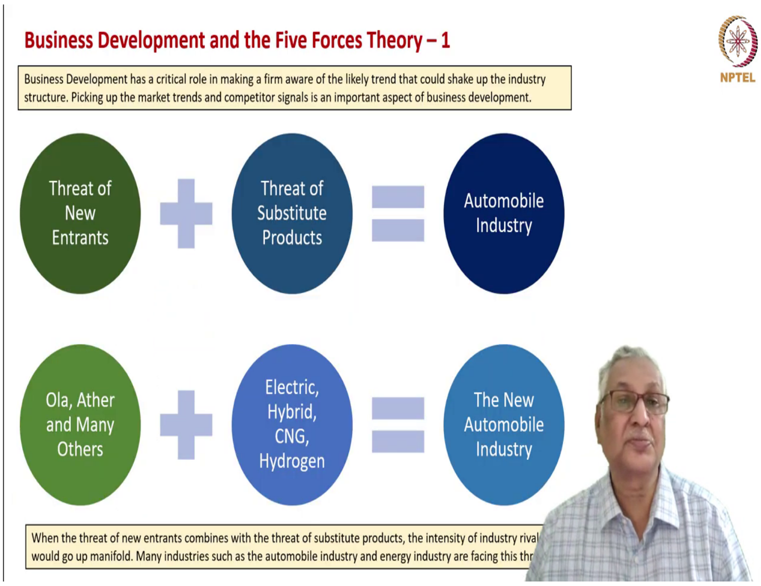

So, how does this Five Forces Theory apply to business development which is the core theme of our course? Business development has a critical role in making a firm aware of the likely trends that could shake up the industry structure. Picking up the market trends, understanding the competitive signals, clarifying the mega trends is an important aspect of business development.

Let us say the threat of new entrants is combined with the threat of substitute products. Then the industry would be forced to transform itself completely automobile industry is an example. Ola, Ather and many others are the new entrants which came into the automobile industry. Technologies such as electric, hybrid, CNG and hydrogen are coming in at a rapid pace.

Together a new automobile industry is getting established. When the threat of new entrants is combined with the threat of substitute products, the intensity of industry rivalry would go up manifold. Many industries such as the automobile industry and energy industry are facing this threat.

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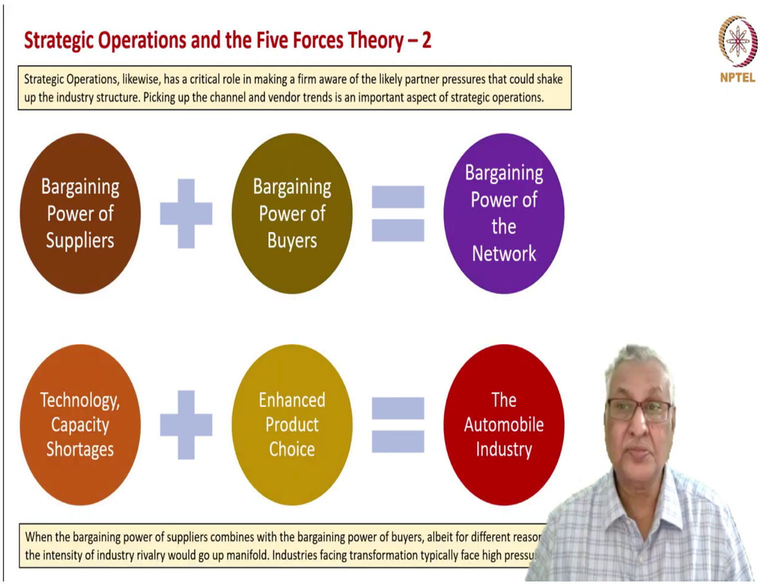

Another example, this time we will cover strategic operations and the five forces theory. Strategic operations that is supply chain, manufacturing, marketing operations they all are critical. Similarly, R and D operations quality operations they are all critical, all of these things require inputs.

Strategic operations likewise; therefore, have a critical role in making a firm aware of the likely partner pressures which could shake up the industry structure. Picking up the channel and vendor trends; therefore, is a very important requirement for strategic operations.

Let us say the bargaining power of suppliers goes up, simultaneously the bargaining power of buyers goes up then the bargaining power of the network as a whole increases. Example, technology and capacity shortages increase the bargaining power of suppliers. Enhanced product choice increases the bargaining power of buyers.

As a result, the new automobile industry is in a transition to meet these requirements. So, when these two forces of suppliers and buyers are combined although for different reasons, the intensity of industry rivalry would go up manifold in this case as well. Industries facing transformation face this high pressures.

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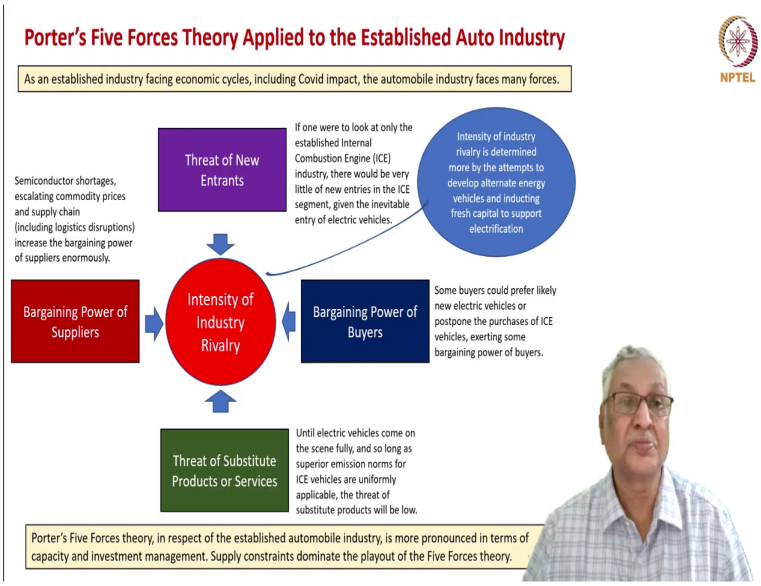

Let us try to apply the Porter's Five Forces Theory to various industries. First let us start with the established auto industry, will it have threat of new entrants unlikely, because everyone knows that the era of internal combustion engines is getting over. There are companies globally which are willing to commit certain improvements to the internal combustion engine.

But they believe that they want more than one more cycle of ice development. Therefore, there is very little chance of new entries in the ice segment because of the inevitable entry of clean energy vehicles. The second one the bargaining power of buyers, some buyers would certainly prefer electric vehicles, and if the electric vehicles are not safety oriented then they will go back to the ice.

Therefore, the buyers have this choice at this stage to toggle between the conventional vehicles and the new generation vehicles. They also may anticipate new electric vehicles coming in and they may postpone the purchase of the ice vehicles. Even within the electric vehicles people know that the first batch of vehicles will be priced higher and sooner or later the prices will would come down.

And they may choose to wait for this lower priced vehicle and therefore, they could exert bargaining power. While clean energy vehicles as a class will be there in future, there is always the threat of substitute products or services. Even before the inc has tried on electrification of automobiles, we have got a host of options such as flex fuel vehicles, biodiesel vehicles, ethanol vehicles, and CNG vehicles as also different types of mobility systems.

The threat of substitute products would be low, but the threat of substitute technologies or platform technologies could be high. And the bargaining power of suppliers is related to the shortages in key materials. You cannot have an electric vehicle until you have a new battery, you cannot have a good electric vehicle unless the entire electrical electronics and motor system is developed and offered.

Therefore, the vendor platform is important in terms of the bargaining power of suppliers, logistics also could exert great bargaining power of supplies. When all of these things happen, the intensity of industry rivalry would also go up. The intensity of industry rivalry in the existing automobile industry is determined more by the attempts to develop alternate energy vehicles and inducting fresh capital to support electrification.

So, as far as the conventional ice vehicle automobile industry is concerned; the threat of new entrance is low, bargaining power of buyers could be high. Because, they are waiting for the electric vehicles and that also they are not completely doing it waiting for the better electric vehicles.

The threat of substitute products or services is low, until the electric vehicles come on the scene fully and the bargaining power of suppliers could vary based on the type of supply capabilities that exist. Porter's Five Forces Theory in respect of the established automobile industry is more pronounced in terms of capacity and investment management. Supply constraints dominate the play out of the Five Forces Theory in this industry.

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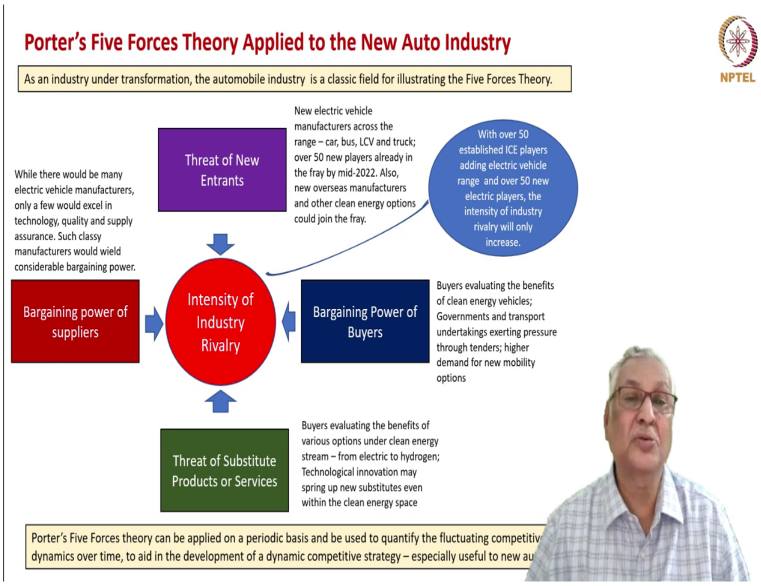

Now, let us go to the new automobile industry, as an industry and transformation the automobile industry is a classic field for illustrating the five forces theory. There is obvious threat of new entrants. New electric vehicles across the range car, bus, LCV and truck; over 50 new players are already in the fray.

Also new verses manufacturers and other clean energy options could join the field. The bargaining power of buyers is going to be high, because the buyers are going to evaluate the benefits of clean energy vehicles. Governments and transport undertakings are exerting pressure through tenders.

And they are also asking the new electric vehicle manufacturers to run the services; rather than, they buy and run those electric services simply because the electric vehicles are costlier. And there is also a demand for new mobility options that could be even better than the electric vehicles.

There is also going to be a threat of substitute products or services because the buyers are evaluating the benefits of various options under clean energy stream from electric to hydrogen. Technological innovation may bring up several new products which could act as substitutes even within the clean energy space.

The bargaining power of suppliers would be directly proportional to the capability of the vendors to supply the parts that are required by the successful electric vehicle manufacturers. A few of those electric vehicle manufacturers would excel in technology quality and supply assurance. For the vendors to be able to exert bargaining power, they should be on the top of the supply chain equation for such high quality and assured electric vehicle manufacturers.

And those vendors who have that will have considerable bargaining power. What would be the level of intensity of industry rivalry? With over 50 established ice players adding electric vehicles to their range and with over 50 new electric players, the intensity of industry rivalry will only increase with time.

Again, Porter’s Five Forces Theory would be appropriate to measure the amplitude of change in the new automobile industry. The measurement of fluctuating competitive dynamics will provide guidance on how to develop the strategies. And all of this will lead to the unveiling of a dynamic competitive strategy in the industry which is under transformation.

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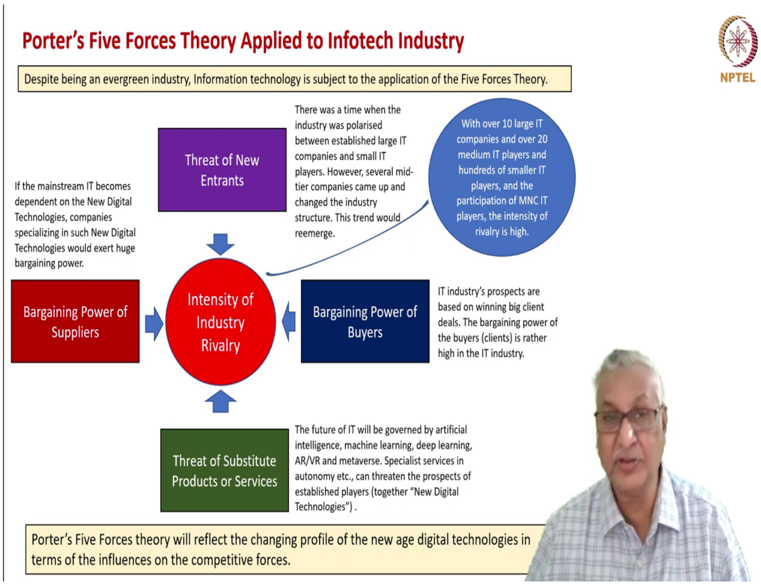

Let us look at the Porter's Five Forces Theory as applied to the info tech industry despite being an evergreen industry information technology is subject to the application of the five forces theory. At some point of time in the past there were the industry was polarized between established large IT companies and small IT players.

However, several mid-tyre companies came up and changed the industry structure. This trend would re emerge, because newer technologies are coming in and either through the use of substitutive products or through the entry of new entrants based on the new technologies there could be companies coming in.

The bargaining power of buyers would vary depending upon the budgets that the big IT companies users have IT industries prospects are based on winning big client deals. The bargaining power of the buyers is rather high in the IT industry. The threat of substitute products or services as I said earlier is very real in the IT industry.

In fact, the earlier model where in the combination of the threat of new entrants and the combination with the threat of substitute products or services is very high in the info tech industry. The future of it will be governed by artificial intelligence, machine learning, deep learning, AR, VR, and metaverse.

Specialist services in autonomy etcetera can threaten the prospects of the established players together, they all are new digital technologies. The bargaining power of suppliers that is the vendor system that enables the info tech industry to prosper is dependent on these new technology companies.

Companies which provide specialized services leveraging the digital technologies and they would have huge bargaining power. With over ten large IT companies and over 20 medium IT players and 100s of smaller IT players and the participation of MNC IT players all of whom are looking at these new digital technologies the intensity of rivalry is bound to be high.

Porter’s Five Forces Theory will reflect the changing profile of the new age digital technologies in terms of the influences on the competitive forces.

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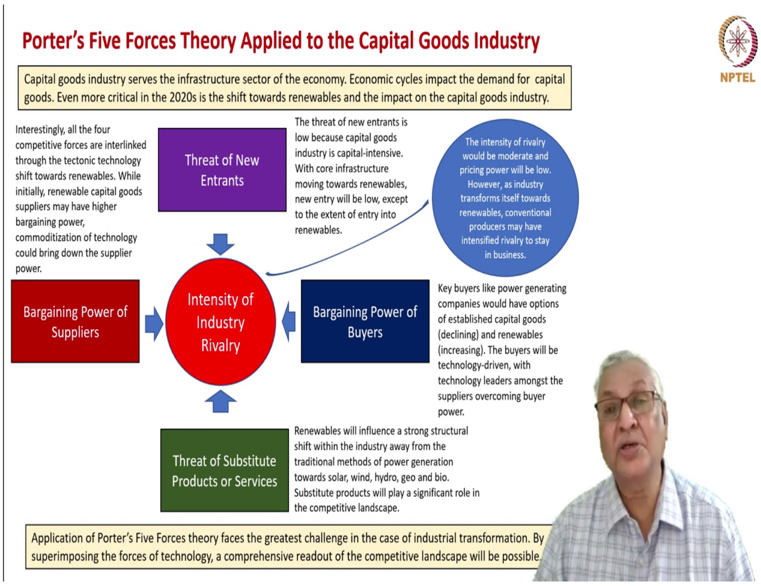

Let us look at the Porter's Five Forces Theory as applied to the capital goods industry. Capital goods industries serves, the infrastructure sector of the economy. Economic cycles impact the demand for capital goods from time to time that is why a large company such as Bharat Heavy Electricals Limited or BHL has not been able to have good profitability, good revenue growth when the economy and infrastructure were affected in the past.

Even more critical in the 2020; since, the shift towards renewables and the impact on the capital goods industry. The threat of new entrants in the capital goods industry is low, because the industry is capital intensive. With core infrastructure moving towards renewable new entry in the established industry will be low except for the entry of entry into renewable.

The bargaining power of buyers is likely to be high, because the key buyers like power generating companies or the public utilities would have options of established capital goods declining in demand. And the new generation of renewables equipment or the solar modules etcetera increasing in demand.

The bias will be technology driven with technology leaders amongst the suppliers overcoming the buyer power. The threat of substitute products or service is very real in the capital goods industry, as a result even established capital goods companies are trying to bring in newer renewable technologies into the fold.

Today, every company in the energy industry as well as in the capital goods industry that supports the energy industry or getting into the new energy modules production, systems or simply the new energy capital equipment. Renewables will therefore, have a strong influence, it will cause a structural shift in the industry from the traditional methods of power generation towards solar, wind, hydro, geo and bio.

Substitute products therefore, will play a great role in the competitive landscape, what about the bargaining power of suppliers? Interestingly all the competitive forces are interlinked and consolidated through the tectonic technology shift towards renewable. While initially renewable capital goods suppliers may have higher bargaining power, commoditization of such technologies could bring down the supplier power.

How would the intensity of industry rivalry pan out? It would be moderate and pricing power will be low. However, as industry transforms itself towards renewables, conventional producers may have intensified rivalry to stay in business. The greatest challenge in the case of industrial transformation can be tackled to some extent by Porter’s Five Forces Theory.

We need to superimposes the force of technology and achieve a comprehensive readout of the competitive landscape as far as the capital goods industry is concerned. Mainly because the capital investments are very high and the lead time or the gestation type for the new trends is very high.

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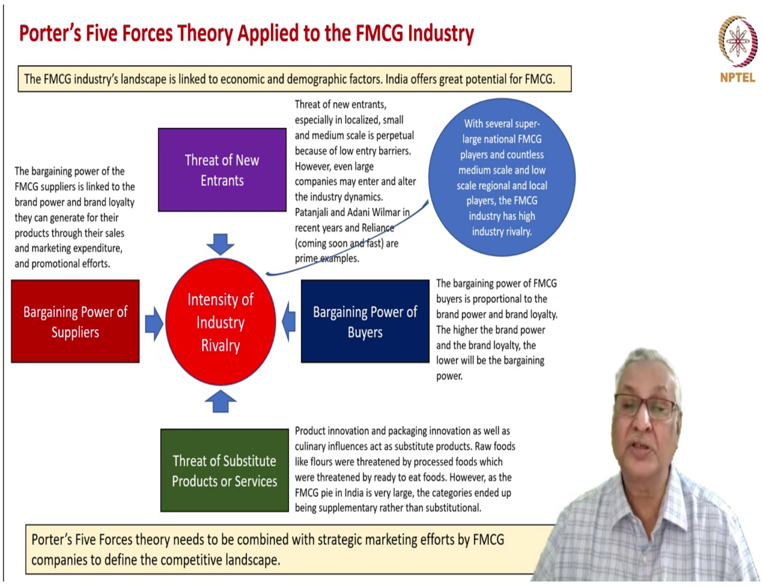

Let us look at the Porter's Five Forces Theory applied to the fast-growing consumer goods industry. The FMCG industries landscape is linked to the economic and demographic factors. India, therefore, with its growing population, growing organization and higher middle class, offers great potential for (Refer Time: 39:24) FMCG.

Threat of new entrants, especially in localized small and medium scale is perpetual in the FMCG industry. Mainly, because one can enter the industry based on outsource manufacture or on local entry basis or based on low entry barriers that could exist in different product groups.

Even large companies may enter and alter the industry dynamics. Entry of Patanjali at high scale and Adani Wilmer at again high scale in recent years and Reliance coming soon and fast with its own FMCG products are prime examples of the threat of new entrants.

The bargaining power of FMCG buyers is proportional to the brand power and brand loyalty that they have. The higher the brand power and the brand loyalty the lower will be the bargaining power and vice versa, threat of substitute products or services. Product innovation and packaging innovation are equally important in FMCG industry.

Culinary influences also act as substitute products; raw foods like floors were threatened by processed foods, they were in turn threatened by ready to eat foods. However, as the FMCG pie in India is very large, the categories ended up being supplemental to each other rather than substitution.

The bargaining power of suppliers is linked to the brand power and brand loyalty, they can generate for their products through their sales and marketing expenditure and promotional efforts. That is if an FMCG supplier is able to demonstrate that it has got excellent manufacturing capability for the FMCG makers.

Or if the FMCG makers themselves are able to demonstrate that their products are of highest quality, highest purity and highest consistency. They would be having strong bargaining power with reference to the buyer group. With several super large national FMCG players and countless medium scale and low scale region and local players, the FMCG industry has high industry rivalry.

We need to super impose strategic marketing and strategic business development on the Five Forces Theory especially related to the FMCG industry. This is principally because the FMCG product dynamics are fast evolving and they are subject to influence by the FMCG companies like no other industry. And the competitive landscape is defined by many factors internal as well as external to the firms.

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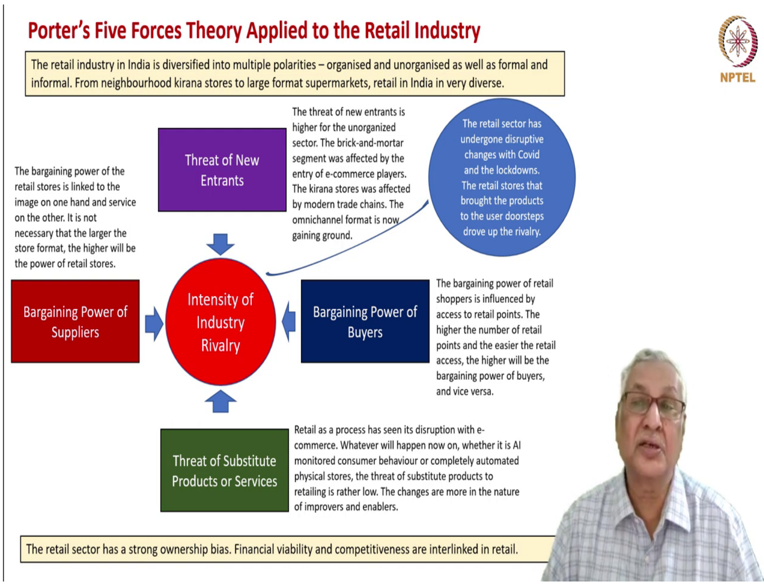

Let us look at the Retail Industry, everybody agrees that retail has a long way to go in India. While the Kirana stores have been the backbone of the retail industry and newer formats particularly what we call modern trade these days has come into being retail industry is still one which is highly fragmented and having very broad spectrum.

From neighborhood Kirana Stores to large form at Supermarkets retail in India is very diverse. The threat of new entrant is definitely high for the unorganized sector. The brick and mortar segment was affected by the entry of e-commerce players, the Kirana stores was affected by moderate trade chains.

The Omnichannel format is now gaining ground; so, there is going to be a threat of new entrants from time to time in the retail industry. Even in the consumer electronics industry entry of companies such as Chroma has destabilized the existing way of marketing electronic products by previously established players such as UX Vasanth (Refer Time: 43:17).

Bargaining power of bias is influenced by the access to the retail points, the high the number of retail points and the easier the retail access the higher will be the bargaining power of buyers and vice versa. If you have many shops in the same vicinity or the same locality, it is possible for the buyers to make a comparison and buy as per their preferred choices.

Availability of e-commerce sites has only enhanced their ability to evaluate and then decide. Threat of substitute products or services is related largely to e-commerce, retail as a process has seen its disruption with e-commerce. Whatever will happen from now on, whether it is AI monitored consumer behaviour or completely automated physical stores.

The threat of substitute products retail is rather low. The nature of purchase remains the same; the format of purchase is changing. The changes are more in the name of improves and enablers based essentially on technologies. As far as the bargaining power of suppliers is concerned, the retail stores would have bargaining power.

If they have good image that they have clean atmosphere, they have got stores which follow certain rules and there are certain other adjacencies that are available. For example, restaurant service, entertainment service and so on, it is not necessary of course, that the larger the store format the higher will be the power of retail stores.

If it were so many stores that are in large mass would not have been closing down from time to time even in the pre COVID times and newer ones coming up in their place. In comparison to that you can see that the Kirana stores are never going off they are never moving out of the business.

Therefore, the bargaining power of suppliers or the retail stores is linked to something else; their own image, their own ability to service the community, their own image of being available when the chips are down for the consumers. The retail sector has faced also intensity of industry rivalry in a big way.

The retail sector has undergone disruptive changes with COVID and the lockdowns. The retail stores brought the goods to the homes of the users and that has enhanced the intensity of rivalry. It is no longer that we have to go to these stores, those store who bring to the products to the doorsteps have up the ante for the conventional retail stores.

The retail stores have a strong ownership bias financial viability and competitiveness are very much interlinked in detail.

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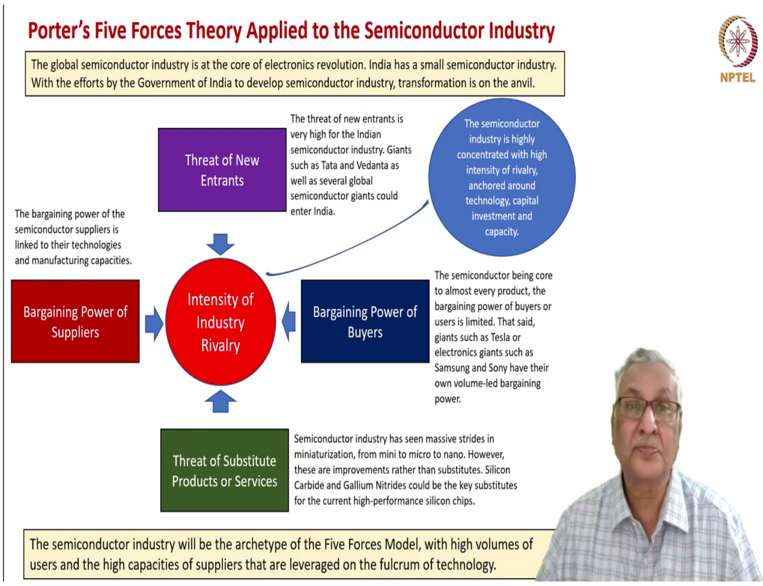

Let us look at on high technology industry, the Semiconductor Industry. The global semiconductor industry is at the core of electronic revolution, India has a very small semiconductor industry, with the efforts by the government of India to develop semiconductor industry transformation is on the annually. The threat of new entrants is very high for the fledgling semiconductor industry that has been there for some years.

Giants such as Tata and Vedanta as well as several global semiconductor giants could enter India. The bargaining power of buyers may not be very high, because the semiconductor is the core to almost every product. Therefore, the buyers cannot dictate what kind of semiconductors they could use rather they would depend on the processing power and the sensory power of the semiconductors.

That said, there have been companies such as Tesla which have written their codes in such a way that the semiconductor shortage also could be moderated to some extent. That is the type of semiconductors and their sophistication could be of different varieties depending upon the availability of the semiconductors.

And this has led to certain moderation of the bargaining power towards the betterment of the end product makers. Samsung and Sony have their own volume led bargaining power. Semiconductor industry has seen massive strikes in miniaturization from mini to micro to nano. However, there are improvements rather than substitutes would there be new materials coming into the semiconductor industry. And would therefore, be new types of semiconductors possible.

Silicon, carbide and gallium, nitrates could be the key substitutes for the current high performance silicon chips. The bargaining power of semiconductor suppliers is linked to their technologies and manufacturing capacities. There does not seem to be any option for the end product manufacturers than rely on the chip suppliers.

The intensity of industry rivalry is as of now not very high, because the semiconductor industry is highly concentrated with high intensity of rivalry amongst the fewer players. But those who have technology and have the capability to the development of technology would alone be the players in the industry rivalry paradigm.

They also should have the capability to make high capital investments and boost up the capacity. It would be a high-cost game in the semiconductor industry going forward. The semiconductor industry is going to be the framework of the five forces model for the new digital world. It will have high volumes of uses, high capacities of supplies are required and all of these things will be leveraged on the fulcrum of technology.

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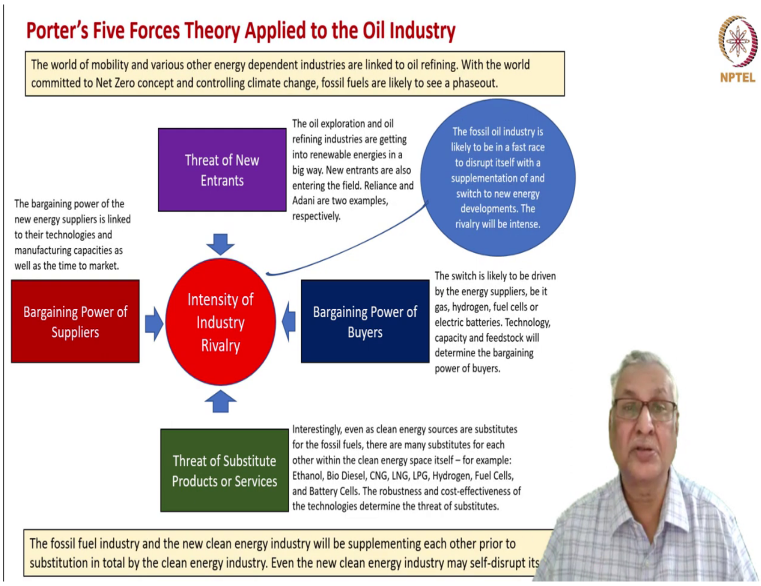

Let us apply the Five Forces Theory to the Oil Industry. The world of mobility and various other energy dependent industries are linked to oil refining. With the world committed to net zero concept and controlling climate change fossil fuels are certainly on the way out. The threat of new entrants is very much there.

The oil exploration, oil refining industries themselves are getting into renewable energies, because they see lighting on the wall. New entrants are also entering the fields; Reliance and

Adani are two examples respectively. The bargaining power of buyers is going to be influenced by the energy suppliers; be it gas, hydrogen, fuel cells or electric batteries.

New energy suppliers are the ones who will dictate the bargaining power of buyers. Technology capacity and feedstock will determine the bargaining power of buyers. Interestingly as far as the threat of substitute products service is concerned, even as clean energy sources are becoming substitutes for the fossil fuels.

There are many substitutes for each other within the clean energy space itself. Ethanol, Bio Diesel, CNG, LNG, LPG, Hydrogen and Fuel Cells as well as Battery Cells are acting in substitution of each other. The robustness and cost effectiveness of these technologies determine the threat of substitutes.

The bargaining power of new energy suppliers is linked to their technologies and manufacturing capacities or service delivery capacities as well as the time to the market. Will there be high intensity of industry rivalry certainly, because the fossil oil industry is not willing to give up it is going to enter into the renewable energy space in a very big way.

Even in our own Indian situation, all the oil refining and marketing companies are getting into the alternate energy sources in a big way. The fossil oil industry therefore, will be in a fast race to disrupt itself proactively with the supplementation of and switch to new energy developments, the rivalry will only be intense.

The fossil fuel industry and the new oil industry or the new clean energy industry will be supplementing each other prior to substitution in totality by the clean energy industry. Even the new clean energy industry may self disrupt itself from time to time depending upon the type of clean energy substitutes that will become available.

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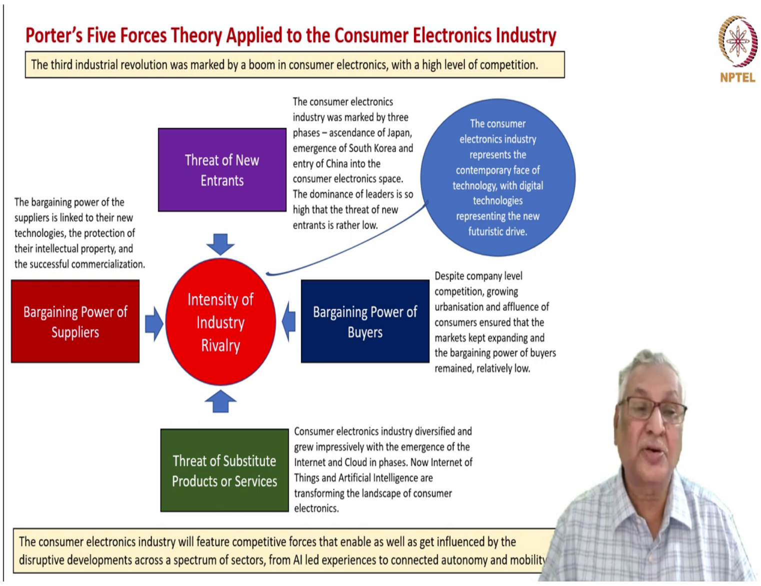

Let us look at something which is very closely aligned to our lifestyle; this is the consumer electronics industry. The third industrial revolution was marked by a boom in consumer electronics with a high level of competition. The threat of new entrants has always been there in the consumer electronics industry.

The consumer electronics industry was marked by three distinct phases; the first was the ascendant of Japan, the second was the emergence of South Korea and the third was the entry of China into the consumer electronic space. The dominance of leaders in the consumer electronic space is so high that the threat of new entrants is now rather low.

The bargaining power of buyers is relatively low, because despite company level competition, growing urbanization, and affluence of consumers. The factors ensured that the markets kept expanding, but the bargaining power of buyers remained relatively low, it is a kind of paradoxical situation.

There is more capacity that is always available, there is more technological developments that are always taking place, there are more powerful brands than ever the existing brands are becoming powerful day by day. The buyers have huge choice yet the bargaining power of buyers is kept in check, by the kind of technological changes and the brand loyalty programs that the suppliers have been able to come up with.

So, expansion of the requirements has not necessarily resulted in bargaining power of buyers. Otherwise, how would one explain that even today generation after generation the premium smartphones are priced at 150000 or 175000. Today when you look at a HP all in one computer range.

It starts with an entry level of 33000 rupees and goes up at the higher end or what they call super premium end to as much as 2000 rupees that is the kind of spread. And for features the buyers are made to pay a lot despite there are many alternatives such as Del, Lenovo in Aces in this space.

In respect of the threat of substitute products or services, consumer electronics industry is very diversified and it has grown immensely with the emergence of internet of things and artificial intelligence. It has also grown substantially with the advent of cloud. All of these things are transforming the landscape of consumer electronics.

The ability to monitor whatever is happening in the house despite not being in the house is a tribute to the developments that are taking place in the internet of things and in the cloud architecture. These things will go up a notch with integration of artificial intelligence in future.

Therefore, the substitute products or services would be in the nature of the new digital technologies well embedded in the consumer products that are required as in the normal course. The bargaining power of suppliers is linked to their new technologies, the protection of their intellectual property and the successful commercialization.

If one were to have camera modules that are protected intellectually, if one were to have Smartphone displays which are foldable which are protected intellectually. And if any of the consumer electronics product has a future such as the new types of washing machine which reduce the use of detergent through the sensory mechanisms to detect the level of dust and dirt so on and so on.

Then, the bargaining power of suppliers would be high. The consumer electronics industry will feature competitive forces that will enable as well as get influenced by the disruptive developments across a range of technologies across a spectrum of sectors. And this will include alt experiences to connected autonomy and mobility.

So, this is a very unique expounding of the Porter's Five Forces Theory. Porter did a great service by bringing out the Five Forces Theory, but to my knowledge nobody has applied these five forces to different industrial situations as I have attempted to do in this lecture. This is a unique contribution to the understanding of the Porter's Five Forces Theory, as also a unique understanding of the evolution of different industries.

And therefore, the likely evolution of the competitive forces in the industry and this would enable the players in the industry understand their own structure, develop their own business strategies. And finally, develop their own business development approaches to be able to be successful in this industrial transformation era.

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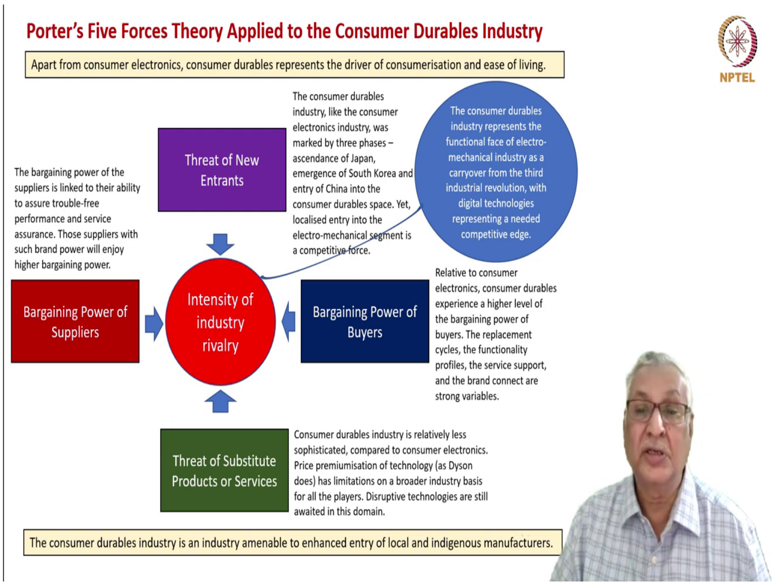

I will end up with the Consumer Durable Industry. Apart from consumer electronics, consumer durables represents the driver of consumerization and ease of living. The consumer durables industry like the consumer electronics industry was marked by three phases ascends of Japan, emergence of South Korea and entry of China.

Yet localized entry into the electro mechanical segment has been a competitive force. Relative to consumer electronics, consumer durables experience a higher level of the bargaining power of buyers. The buyers are not easily swayed as they are by the consumer electronic products.

The replacement cycles, the functionality profiles, the service support, and the brand connect or strong variables. The buyers will prefer those products which rank high on these parameters. The consumer durables industry is relatively less sophisticated compared to consumer electronics.

Price premiums of technology as in the case of Dyson, has limitations on a broader industry basis. Dyson has been a very unique innovative development, but not all companies are Dyson's, disruptive technologies are still awaited in this domain. Therefore, the threat of substitute products services is rather muted in this industry.

The bargaining power of suppliers is linked to their ability to assure trouble free performance and service assurance. Those suppliers with such brand power will enjoy higher bargaining power. The consumer durable industry will have high intensity of industry rivalry, because it is the functional phase of electro mechanical industry, it is a carryover from the third industrial revolution.

It still offers scope for entry into the electromechanical segment by new players. And the threat and the substitute product technologies would up the ante for established as well as the new players. Therefore, there is always a need for competitive edge in the consumer durables industry which every new entrant as well as the established player would strive to accomplish.

It is an industry which is in the overall amenable to enhanced entry of local and indigenous manufacturers. So, with this we come to the end of this lecture, as I have said earlier you would have appreciated the relevance, importance, and uniqueness of demonstrating the Porter's Five Forces Theory with reference to the consumer durables industry in the end.

As also the various other industries that I have demonstrated from consumer electronics, and semiconductors to automobile industry and the energy industry. And those industries which are people intensive and grant intensive such as the retail industry. The applicability of the Five Forces Theory to industrial situations is beyond doubt.

But we need to have sharpness, specificacity, and also smartness in applying the Five Forces Theory to different industrial situations. And this is not an application that can be done once and believed to be applying itself continuously ever after. We need to apply the Five Forces Theory on a dynamic basis to the evolving industrial situation.

We have to use the Five Forces Theory with reference to our industry in a manner that we can understand the evolving structure, frame our competitive strategies, develop our business strategies. And finally, zero in on the most appropriate business development approaches.

So, thank you once again for your kind attention, hope to see you in the next lecture.