

Manufacturing Strategy
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Module No. #05

Lecture No. #21

Developing an Operations Strategy: Roth and Miller Classification

Welcome, friends. Now, we have crossed, the 50% mark, of this course on Manufacturing Strategy. We are starting with the fifth week, in this session. And, in last few sessions, we were focusing on the development of, Manufacturing Strategy. The various steps, which we need to follow, to develop a sound, a robust, a competitive strategy, which can provide, manufacturing as a weapon, for the organisation. And, we discussed, that this whole process, can be divided into two broad phases.

One, where you analyse your markets. And, second, based on that analysis, you develop your Operation Strategy. We discussed, that understanding the market, is the most crucial thing. Because, when you understand the market, from strategic development point of view, we understand, what are the Order Winners and Qualifiers. And, based on those Order Winners and Qualifiers, either, we will be adjusting our strategy, to fulfil those requirements of the market.

And, when we anticipate, those Order Winners and Qualifiers, we try to develop, or we remain proactive, to provide those market winners and qualifiers in advance. So, that is, in a very nutshell, the whole process of development of Manufacturing Strategy. And, once you are able to do that, certainly, manufacturing can provide, lot of inputs to the corporate level strategy. Now, in today's session, in the same part of development of Operations Strategy, we are going to discuss, the contribution of Roth and Miller.

Roth and Miller gave, one of the taxonomy of manufacturing. And, this taxonomy is, as old as, about three decades. Now, they did some kind of research, in North American organisations. And, based on their research, they develop this manufacturing taxonomy. So, now, when we see the contribution of Roth and Miller, they divided the organisations, manufacturing organisations particularly, in three broad categories.

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Strategic Type	Order winning Criteria	Qualifying Criteria
Caretakers I	Price	Delivery Reliability Consistent Quality ✓
Marketeers II	New products ✓	Consistent Quality ✓ Dependable delivery ✓
Innovators III	(a) High quality products (b) Design flexibility (c) Speedy new product developments	Consistent quality ✓✓

1989

Caretakers, Marketeers, and Innovators. These are the three prime categories, in which, Roth and Miller, divided their organisations. Now, according to Roth and Miller classification, Caretakers are those types of organisations, where price is the most important. And, they say, that price was the order winning criteria. But, along with price, delivery reliability, and consistent quality, are also equally important, but not so important, as price.

So therefore, delivery reliability, and consistent quality, became the qualifying criteria, for caretaker type of organisations. The second type of organisations, according to them, is the Marketeers. Now, Marketeers are those organisations, which are more oriented towards market. And, as per the market requirements, these organisations are bringing, new products, on a regular basis. Because, the market requirements are changing.

And therefore, to fulfil the market requirement, organisations are bringing, new products. But, even in the new products, they expect, consistent quality, and dependable deliveries. So, you can see that, even in the Caretakers, and in the Marketeers, the qualifying criteria are more or less similar. Consistent quality was, one of the criteria, qualifying criteria for Caretakers. And, consistent quality, is the criteria for qualifying, in case of Marketeers also. Delivery reliability was the word, used by them, for Caretakers.

And, dependable delivery, which is almost similar, that you have delivery reliability, for the Marketeers. The third category. First was the, Caretakers. Second is the, Marketeers. And, the third category, is the Innovators. Now, Innovators are those types of organisations, where they provide, high quality products. They are able to maintain, good design flexibility, and their

new product development. New product development, is winning criteria for, Marketeers also.

But, in case of innovator, the rate of introducing new products, the rate of NPD, is much faster. So therefore, Innovators are having, these three important winning criteria, high quality products, design flexibility, and the development of new products, at a much faster speed. And, here you see, the quality is only, the important order qualifying criteria. Because, this delivery has come as a winning criterion, in case of Innovators. Delivery was qualifying criteria, for Caretakers and Marketeers.

But, for Innovators, delivery has moved, to the order winning criteria. How quickly, you are able to deliver, new products, better products. So, that is a winning criterion, in case of innovator. But, in all new products, you need to maintain, a consistent level of quality, that is a qualifying criteria. So, you can see that, according to Roth and Miller, the study which was done in 1989, from that time, the quality everywhere, is remaining a qualifying criteria.

Because, each organisation, nowadays, can have, similar access to technology. So, when you have, similar access to technology, we all can deliver, similar level of quality. So therefore, quality was no longer, a winning criterion, for those organisations, which were the part of study, under the Roth and Miller Taxonomy. And therefore, quality remained, a qualifying criteria. And, even today also, you will see that, for variety of products, quality will remain, a qualifying criteria only.

Now, going slightly more into detail, about these three types of strategic type. And, because these will be, you can say, whatever strategic manufacturing strategic development we discussed, these three types of strategic output, can be used, as generic strategies for manufacturing. Whether, you are a caretaker type of organisation, you are a marketeer type of organisation, or innovator type of organisation, so that is interesting that, in which bracket, you are falling.

And, that will give you, that what type of actions, you are going to take. And accordingly, your competitors can also perceive, that if the organisation is a caretaker type of organisation, what will be the priorities of this organisation. If it is a marketeer type of organisation, what

will be the priorities. And, if it is innovator type of organisation, what will be the priorities. So therefore, now let us see, these things, slightly in more detail. So, the first is, caretaker.

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The slide features a white background with a blue header and footer. The title 'Caretaker' is centered at the top. Below it, the text 'Low relative emphasis on the development of competitive capabilities.' is displayed, with 'relative emphasis' underlined in red. A handwritten note 'Protection:...' is written in red ink to the right of the main text. The footer contains logos for IIT KOOKEE and NPTEL ONLINE CERTIFICATION COURSE, along with the number 3.

Now, caretaker type of organisation, as we just discussed, the price is, important order winning criteria, for these organisations. The issue is that, caretaker is those organisations, they are very reluctant, in acquiring or developing, new competitive abilities. They are satisfied, with whatever they have. And therefore, they have relatively low emphasis, on the development of competitive abilities. Whatever they have, they are satisfied. And therefore, they are more focused, all the time, on reducing the cost of their production activities.

And therefore, the emphasis on price, as the order winning criteria. Because, they are not developing, the are not acquiring, new capabilities, new competencies. And, as a result, you will see that, it will be very difficult for caretaker organisations, over a period of time, to survive. Because, your competing organisations, will be acquiring, some new types of capabilities, new types of competencies.

And, when you are not acquiring, you are reluctant, you are feeling comfortable, in your current zone, in that case, the competitors will go ahead of you. And, it will be very difficult for you, to survive, even in this competitive edge. Because, earlier, the market were very slow. Markets were characterised by, similarity. The rate of change was very, very low. And, at that time, even if you are not developing new competencies, it was good enough, to survive. You take the example of India, for this matter, now.

Before, this liberalisation era came to India, we were living in License Raj system. And, in the License Raj system, we used to have, license for everything. You used to have permits, we used to have quota. For everything. Now, if I am a company, making radios. So, Government of India used to give me the license, that I can produce, 10,000 radios in a year. Now, that was the license given to me, to produce 10,000 radios. No other company, can produce even a single radio, without that license.

So, I was very comfortable, that I will produce 10,000 radios. And, all those 10,000 radios, will immediately sell. So, Caretakers are that type of organisations, which are developed, under some protected environment. So, caretaker type of approach, caretaker type of generic strategy, is suitable, when you have some protection. And, please be careful, that this protection is not coming, from your intellectual property. The protection may come, that you do some kind of innovation, and you protect that innovation, under patent, etcetera.

Now, this protection is normally coming, because of state support. When, your Federal Government, supports your organisation, by providing some kind of shields, that protection is the reason of, low emphasis on developing new competencies. When, you get that type of favouritism, then it is probably, the caretaker type of approach, which is coming up, in the manufacturing era. And, most of the Indian manufacturing organisations, suffered, only because of, this particular kind of protectionism.

Because, this protective approach, did not allow them, to develop additional competencies. They were very much satisfied, within whatever market available to them, at that time. So, this is, one type of generic strategy, which is there. But, not very helpful. This is not going to give you, the advantage, by the manufacturing. But, it is one type of generic strategy. The second type of generic strategy, which is much more popular, than the caretaker, that is the Marketeers.

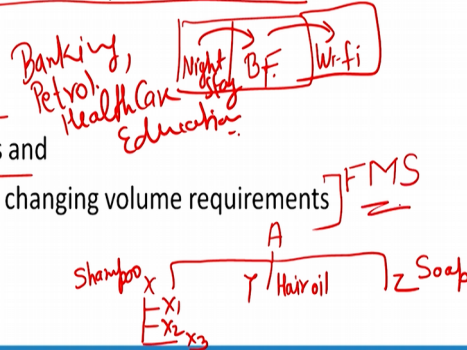
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Marketeers

- Several key market oriented competitive capabilities.

- They seek to obtain

- broad distribution,
- broad product lines and
- to be responsive to changing volume requirements



Now, Marketeers are those organisations, which try to develop competitive abilities, which try to develop competencies, which are market-oriented. So, they have, key market-oriented competitive abilities. And, according to changes in the market, they keep trying, to develop, or to acquire, new capabilities. Because, market is a very dynamic phenomenon. Customer's requirements are changing, at a very fast rate.

And, if you are a marketer type of organisation, you continuously need to evolve. And therefore, the points which we discussed in our earlier sessions, that to analyse your market, to understand your market, to agree on the market, whether you are going to serve, the same market, with the changing requirement, or you are going to identify new markets, where your current capabilities can work. These are the, two different type of things. One, where you are trying to develop, your capabilities, as this market is changing.

This market is requiring, new type of features. Their expectations are changing, from one need to another, another to another. Now, earlier, we were using hotels, only for night stay. So, the expectation was, to have a comfortable room, a comfortable bed, in the hotel. But, over a period of time, now customers need that, when we are staying in a hotel, I should get breakfast also, next morning. So, breakfast also becomes, an important element.

So, whether, I will keep serving, same customer, and add breakfast, in my services or not, or I change my segment, that I keep serving those customers, who require only night stay. Now, another, after 2 years, after 3 years, customer also expect, complimentary Wi-Fi. So, should I

add, this service also, into my product, or I again look, for a new segment of customers, who are only comfortable, with night stay, and morning breakfast.

So, that is, the two type of things, which you need to continuously see, agree, in case of Marketeers, that how you are remaining, a market-oriented organisation, you develop your capabilities, which are, as per the expectations of the market. Now, when you are a market-oriented organisation, we discussed, that new product, is one of the key order winner, for the marketeer type of organisations. Now, new product means, you need to continuously evolve your products, because market requirements are changing.

So, with changing requirements, you need to continuously evolve your product. And, when I am talking of, evolving the product continuously, there are few things, which we seek. Now, we seek, broader distribution. How I need to reach, to the larger markets. Wherever my markets are, I should be able to reach, to those marketplaces. And, that is the meaning of, broad distribution. I need to continuously broaden my distribution. You see, in country like India, there are examples, particularly in the banking sector. Then, in petroleum sector.

Then, you see, lot of healthcare sector. Then, in education sector. The key of success is, to broaden the distribution. In all these sectors, there is not much innovation, happening in the product, though there is some. But, largely, the meaning of marketeer, for these organisations, whether you talk of State Bank of India, you talk of ICICI, you talk of HDFC, you talk of Vijaya Bank, Bank of Baroda, you name any bank, whether it is a PSU bank, it is a nationalised bank, it is a private bank, their main objective is, how to increase their number of branches.

And, increasing the number of branches is nothing, but to achieve, higher distribution level, higher penetration into the market. Petroleum companies, they were having, very selective outlets, 10 years back. But now, they keep looking opportunities, that where can they open, new outlets. So, again, expectations of broader distribution. Healthcare. The good hospitals, multispecialty hospitals, were only available, in Tier-1 cities in India, few years back.

But, now you will find, that multispecialty hospitals, the branded chains, the organised healthcare, is available, in Tier-2, Tier-3 cities, of our country also. So, those organisations, healthcare organisations, hospitals, are also looking for, broader distribution. Education, we

have some very reputed, school chains, in our country. Their schools were available, only in limited cities in our country.

But nowadays, under this aspect of marketeering, under the aspect of broader distribution, these branded schools are available, in Tier-2, 3, 4, or Non-Tier cities also, smaller towns also. So, organisations are understanding, that there is a huge market. There is a huge market, which is available, in different pockets. And, you can achieve, you can target that market, only by broader distribution. And therefore, the concept like, rural marketing, is becoming popular, in our country.

Because, more than 50% of India's population, is still living in rural area. And, if you want to target, that large market, more than 50% of the India's market, you need to increase your distribution. So, distribution is one aspect, of the marketeering activity, from the production point of view. Then, broad product lines. Because, you are market-oriented. And, market is full of heterogeneity. It is not, similar requirements, of all the customers.

We have many a times discussed this aspect, that our current customer is, a very heterogeneous customer. Each customer requires, different types of products. And, when each customer requires different types of products, you need to fulfil, large variety of products, from your product offers. So, we require, broader product lines. Now, just to explain you, what do we mean by, product lines. So, when there is a company like A. And, if company A is offering, three different types of products, X, Y, Z. Now, X, Y, Z, are three different types of product.

So, if X is, let us say, a shampoo, Y is hair oil, and Z is soap. So, these are three different type of products. Now, within these three different types of products, companies offer, different types of variants of shampoos, X1, X2, X3, etcetera. Similarly, for Y, there may be different types of variants, Y1, Y2, Y3, Y4. And, so on for Z, Z1, Z2, Z3, Z4, etcetera. Now, you are offering, X1 to Z4, that is known as your product mix.

Now, in this product mix, the X, Y, Z are known as, product lines. So, you need to have, more product lines, because different customers have, different types of requirement. And, it is always safe, to offer more product lines. Because, sometime, your one product is not doing well, then your other products may help you, in surviving, during those odd periods. Like, if

your shampoo is not doing good, so maybe, hair oil and soap can help you, during those periods.

If soap is not doing good, shampoo and hair oil, can help you. So, by this permutation and combination, you can survive, in all periods. So, broader product lines, are also required, when we are market-oriented. And then, we also need to be responsive, to changing volume requirements. Because, customers, sometime they think that, I must procure, for whole month. Sometime customer feels, that I should procure, only for my immediate requirements.

So, customer requirements, keep fluctuating, for the same product. For the same product, when sometime customer reveals that, okay, I want to purchase cool drink, so let me keep cool drink for 1-month stock. Sometime, customer purchases, only for immediate consumption. So, these are the, fluctuating volume requirements. So, you have to be responsive, you have to be adjusting, your offerings, as per the changing volume requirement, if you are a marketer type of organisation.

And, obviously, if you are fulfilling, the volume requirement, different volume requirement, of the customer, you need to have, a more flexible manufacturing system, that can take care, the needs of changing volume of production level. So, with this, we see that, you have to very closely understand, your market, if you are a marketer kind of strategic organisation. Then, third type of classification, third category in their classification, is Innovators.

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Innovators

- Ability to make changes in design and to introduce new products quickly.
- They share certain characteristics with the marketeers. In both groups, conformance and performance quality is top rated characteristics.



So, Roth and Miller said, there are lot of similarities, between Marketeers and Innovators. Marketeers are also offering, new products. Innovators also offer, new products. But, the important thing is, that Innovators are offering new products, at a much faster speed, much faster rate. So, their time to deliver the product, from idea stage, for the requirement stage, to the delivery stage, is much shorter, as compared to the marketeer.

So, they are doing these things, quickly. So, lesser time is the key, for the innovator organisations. If you are able to introduce, new products quickly, you are an innovator organisation. And, you can very well understand, without giving any name, right now, that organisations are trying to become, more and more combination of marketeer and innovator. We are discussing right now, the general classification, caretaker, marketeer, and innovator.

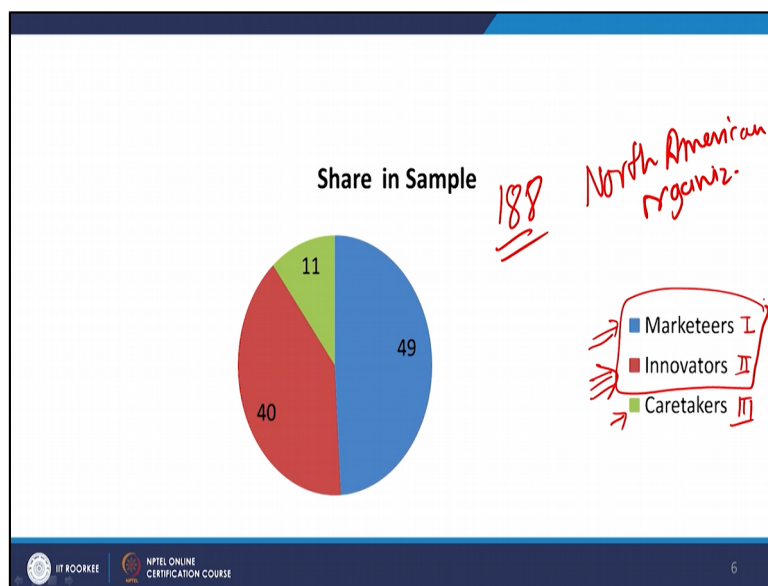
But, organisations try to become, market-oriented, and at the same time, offering new products at a faster rate. So, more pressure is coming, on the functional activities. So, as I said, that there are, lot of characteristics, which are common, between marketeer and innovator organisations. But, apart from that, when we are talking of marketeer, the idea is that, whatever is required by the customers, we produce those types of products.

When, we are an innovator type of organisation, we keep doing R&D, in our labs. And, on the basis of those results of R&D, we offer products. Now, many a times, there may be a conflict, that these products, which we are developing in our research labs, may not be required, by the customers. But, then we use, heavy promotional activities, for selling these

products, innovative products, to the market. So, sometime, the idea of marketing and innovation, may get some kind of contradiction.

Because, the products, which are developed, according to market requirement, can be distributed, can be given to market, much conveniently. But, those products, which are developed, as a result of your R&D activities, may not be exactly in line, with the market expectations. So, you need to do, lot of hard working, in pushing those products, to the market. So therefore, we need to be, market, as well as innovator, a combination of these two generic strategies.

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So, when we discussed, these three classification, these three types of organisation, so if you see, out of a sample of 188 organisations, which Roth and Miller took, for their study, and all of them are from, North America. 49% of them, were the Marketeers. So, most of the organisations feel that, if we are market-oriented, the chances of success are, highest. 40% of the organisations, were Innovators. Those, developing new products, regularly, at a faster rate. And, only a very small percentage of organisations, 11%, were Caretakers.

So, you can see that, from the American organisations point of view, marketeer is the most preferred, then the innovator, and then the caretaker. But, if you see, from India's point of view, this data, this percentage, may change. In India's case, large number of organisations, may fall, under the category of, Caretakers. Because, we are living in a very comfort zone kind of situation. So, many Indian organisations will fall, in the caretaker category. Then, second, the marketeer. And, third will be the, innovator.

While, as I just proposed, that organisations, need not follow this generic classification. Organisations need to develop, their own strategic type. And, it is good, if we have a combination of, marketeer and Innovators, where we should be able to introduce, new products quickly. And, these new products, should be, as per the expectations of the market. So, if that type of strategy, is developed for my organisation, that is going to give me, the best competitive weapon, in this volatile market. Thank you, very much.