Logistics & Supply Chain Management

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Lecture 35: Achieving Supply Chain Strategic Fit (Contd.)

welcome again to this NPTEL online course on logistics and supply chain management. So, we started discussion on how we can achieve the strategic fit and in that process we have discussed about the first very 2 basic steps where we talked about what are what can be the you know uncertainty is coming from the customer side in terms of demand or different level of services expected ah from the customer. And then we talked about the uncertainty is coming from the supply perspective as well right. And then we talked about what are our capabilities in the second step we explored our capabilities our strengths our weaknesses right and then now the next step is we will continue with how we can get the that strategic fit which we are talking about the you know the alignment between your supply chain strategy and your competitive strategy. So, this is the third step talking about alignment between your supply chain strategy and your competitive strategy.

So, obviously, your competitive strategy is targeted to compete with the rivalries right. So, that means, how you will compete with your complete supply chain whatever you are offering through your complete supply chain right. Now, talking about complete supply chain that means, you need to synchronize all the stakeholders right starting from your raw material suppliers, sub suppliers, manufacturers, co manufacturers, warehousing partners, distribution partners, transportation agency and finally, your customer is also part of that, each stakeholder all functions you will perform supplier will also do the sourcing supplier will also store the material he will also manufacture he will also transport ship package all these activities will happen there as well marketing also there because he is marketing to manufacturer or the next stage supplier same all activities more or less in different way will be happening in the manufacturing agency as well. Then, all these activities or some of the activities happening at the warehousing center as well, we are manufacturing may be in terms of packaging, manufacturing may be in terms of kitting, manufacturing may be in terms of any value adding activity if you are doing with the product, right.

So, that means, these all stakeholders Within each stakeholder all the functional units like here I have mentioned marketing, operation, procurement, logistics, but these are not only 4 right. So, their warehousing is very important, end mile distribution is very important, storing of raw material is very important. manufacturing is very important,

quality assurance is another very important function right. So, these all function if you are saying that efficient then you need to throughout ensure the efficiency, if you are saying responsiveness throughout you need to ensure the responsiveness. So, here we will target either quickly you are responding or efficiently and we will strategic zone where we will say that if you will lie in this zone you will say that you are hitting that strategic fit zone.

So, alignment of supply chain responsiveness and implied uncertainty. So, implied uncertainty this is very common sense if you will see if uncertainty is high can you be cost efficient or you have to be responsible. Obviously, if uncertainty is very high you have to be responsive right, because quickly you need to respond to the demand, quickly you need to respond to any change in the supply. So, if your supplies demands are matured enough, then you can think of going for your efficient supply chain. So, mcmaster car supply chain strategy if you will just go through that quick example which are dealing with the maintenance repair and operation product.

So, they are obviously, the variety is huge because those many products for maintenance you need so many different equipments right different requirements. If you are talking about only keys, so how many different size of keys are required and then so many different other items right. So, rapid delivery and variety they have to ensure. Having said that rapid delivery and variety that means, you need to choose the responsive supply chain. there also you cannot be very efficient you have to be efficient right you cannot say that we are responsive.

So, we cannot be efficient right, but responsiveness is something this supply chain requires responsiveness because of two basic things variety and delivery rapid delivery is required. Aligning roles across the supply chain So, different stages of the supply chain may require varying level of responsiveness and efficiency. Now, this is something we were talking about either your supply chain can be responsive or efficient, but then let us say you are very responsive in providing the high availability of the products. That means, implications are that inventory you need to keep extra with the retailer right, but keeping inventory extra with the retailer will give you one positive chance to reduce the cost of manufacturing because you are producing in bulk.

There you can be cost efficient, you are responsive at the retailer end because you are keeping high inventory, but at manufacturing end you can lower down the cost because now to keep that high inventory you are manufacturing large large lot quantity. So, change over is minimum, then again where you can be efficient you can be efficient when acquiring the resources, raw material suppliers you can negotiate with them because you are buying orders in bulk right. So, that means, this responsiveness throughout the supply

chain you need to design where you can be responsive, where you can be efficient to proper blend of these two you need to find. So, retailer and manufacturer approach retailer holds minimum inventory if you like the example I told you. If retailer is observing the maximum uncertainty keeping the responsiveness parameter by maintaining the inventory that means, retailer is observing the maximum uncertainty in that way.

So, he should get the maximum benefit in that way right because he is focusing more on efficiency responsiveness. So, in that way margin should be little higher. On the other hand manufacturer distribute your raw material suppliers they can be efficient at the same time. So, there they need to be cost efficient in that way. So, this is that beautiful picture we were talking about we were targeting getting that strategic zone right.

Now, let us talk about certain demand when your demand is certain. If you are talking about your product steel industry, sugar industry or all commodity market, if your apparel industry, jeans industry is not very you know that much variety is not there almost right. What you can do with the jeans? Either color will be different or some trend may be parallel fashion or maybe narrow jeans or low waist or these kind of things will be there right. But these are fixed right. You know what other what else you will do with that.

but talking about let us say the girls stock or female stock or top how you are designing. So, many variety can be there designs can be there compared to standardized jeans right. So, that means, certain demand certain supply will be there, right so in that way your supply chain should be very very efficient supply chain so this is supply chain efficiency zone you need to target right efficient supply chain but moving towards as your uncertainty is increasing your supply chain from efficiency you will now promise responsive supply chain right where you are talking about zara now zara is saying that because they are majorly producing for females right for girls latest trends every week they are changing the fashion they are changing the inventory on their shelves right. So, that means, responsiveness is very important.

So, they are maintaining a minimum inventory. So, that it could can be consumed within that time and new pattern will come automatically. on the other hand walmart dealing with the same apparel industry, but they are more responsive sorry efficient right cost efficiency so they are providing maybe standardized product or different like amazon what amazon is doing they have divided all the patterns into different category. This kind of product may be jeans I talked about so very regular kind of product demand supply is certain so should be efficient we are designing tops for the girls should be very very

responsive how quickly we need to replenish how quickly we come with the new pattern new design new style So, this is that strategic fit depending upon where your product is, if you are on the uncertainty side, if you are on the certainty side. So, then accordingly you will change this strategic zone right.

So, now all the functions within any supply chain should be targeted to achieve the competitive strategy like I told you if we are saying that we are responsive our retailer should not say that I cannot process single order because we are responsive for supplying even single order as well right. So, efficient supply chain Walmart, Dell supply chain responsiveness where Dell is getting the inputs from the make. When they are getting the order then they are starting the manufacturing process after implementing all your inputs. So, Walmart is not doing that. What Walmart is doing? They are producing in bulk.

They are not taking care of what are your inputs, but in that way they are lowering down the cost as well, right. So, there is no right supply chain strategy independent of competitive strategy. Your competitive strategy is something else, right. All efficient kind of things, how you will you just imagine that you are BMW and you are talking about you are promoting BMW with your fuel efficiency, who will believe that BMW is known for the speed, the comfort, the luxury, the safety, Volvo is known for safety. But if you are saying that you are cost efficient, where is your competitive strategy? That means, your competitive strategy is your high status product.

you cannot compete your your supply chain cannot be right even if BMW store is not there in Kharagpur is in Calcutta and there is one demand customer wants the test drive they should come specially for that customer and this is how they are doing that Harley Davidson they are having the look centralized store. So, any demand is coming they are going there and giving the free rides test rides and then coming back to their store. If any demand is coming, they are meeting from the centralized store, because the inventory, because that is one thing is customized product. You cannot deliver make the regular items and then keep in the store. That means, then very basic purpose that we are including your input is gone.

So, that means, in that way you need to tie up. See now this is these two different scenarios are there first scenario this is complete supply chain see supplier is not at all absorbing any uncertainty. So, when it is not an absorbing any uncertainty it should be efficient he should be efficient in delivering the products. now let's say we are talking about jeans industry we talk about apparel industry apparel industry we are talking about jeans now jeans the material will be more or less same may be color will change but then trend whatever you are doing you are doing in the manufacturing unit so that means and

then finally retailer is placing all the inventory now whatever you are manufacturing you you are some, but may be uncertainty is there if any old fashion is there or any trend change is there you need to amend, but still because main demand for jeans is almost saturated you are known. So, you should be also some, but efficient efficiency parameter should be top priority responsibility should be there if any trend is there you need to go for that, but then retailer is observing the maximum.

uncertainty because their customers are going and then you might have seen all the stores your seasonal sales is 70 percent off 50 percent 20 plus 25 percent off that means, now they are selling just on the cost of production, so minimum cost they want to recover so maximum they are observing so they should keep the maximum margin on the other hand if any other supply chain if we talk about like we are talking about the in same apparel industry if you are talking about girls top so then if manufacturing company they need to change quickly the trend so that means they need to change the manufacturing process also .how earlier they were manufacturing the tops now they are adding some new accessories into that they are doing something something with the stuff because I am not an expert in that how they are designing but yes they are coming with so many different patterns and then you see how many options girls are having and then we are coming with the regular t-shirt shirt and then jean what you will do with the jean that means only color you can change maximum this is what you can do So, but you are talking about this is one kind of industry. So, here if you talk about retailer is observing the least whosoever player in the supply chain is observing the less uncertainty obviously, he should be efficient right. So, now I am not saying complete supply chain should be efficient or complete supply chain should be responsiveness.

Some players stakeholders may be efficient, some stakeholders may be responsiveness. So, we have seen different scenarios here. Talking about efficient and responsiveness we have talked about so many things, but let us just narrow down the points where we can compare this. Primary goal what will be primary goal? Obviously, cost reducing cost in efficiency, quick response to the customer requirements should be the objective of responsive your supply chain. Product design strategy, your design should be very easy.

So, that minimum cost should be there, but here modularity like I talked about modular design. Let us say modular design is a kind of thing if in your system I am designing let us say your LED TV. so you are having any problem with the sound you want to improve the sound system just you will remove that sound modular design sound panel and will insert the new one the repairability is gone anything wrong with the picture quality you will remove that picture panel whatever board is there controlling the picture you will put the another with high configuration. And in anything you need to improve the storage

you just take out that storage part and will insert if you want to you know increase the processing speed just include the new processor how quickly you can do that right. Pricing strategy here we are concerned here we are not concerned because they are not competing on price manufacturing strategy should be efficient because in case of efficient supply chain minimize the cost how much you can do, but here capacity flexibility we are promising different variety in that product.

So, how you can ensure that inventory strategy minimum we need to keep. here because we are responsiveness. So, we need to provide the inventory, but that inventory also you need to keep in mind because we are responsive. So, we are quickly changing the inventory whether we have the second market where we can move that obsolete inventory to sell or what we will do with that obsolete inventory because responsiveness also says that quickly we will change the pattern right. Lead time strategy obviously, here we are not bothering about the lead time if it even if standard delivery will be there it may take 5 days, 7 days, 10 days, but here today only we will deliver your product right.

Supplier selection strategy, transportation strategy all the partners will be based in efficient supply chain first thing is how much you will charge. Then we will talk about the quality, then we will talk about your capability, then we will talk about what access to which market you are having right, then we will talk about other, but talking about your responsive supply chain, we will talk about supplier will negotiate starting with how quickly you can change over from one product to other product, how quickly you can change if we will change the design of the product right. So, these will be features. Some of the other issues affecting your strategic fit will quickly go through multiple products customer segments. We talked about Maruti is coming with the 200 different models targeting one car is starting base price is let us suppose 10 lakhs ending with 20 to 23 lakhs.

You just imagine more than double what is the base price is. So, you can just imagine those many extra features you are getting. So, that means, different products and then not only this one this is one particular model they are coming with so many different models right different. models are there in each model this is the variety then different customer segment they are serving right. So, you need to make the balance between efficiency and responsiveness.

The person who is looking for 10 lakh model base model obviously, looking for efficiency he will look for the fuel efficiency as well. He will look for how much maximum he can carry you might have seen who is having the BMW maximum 2 or 3 people must be riding at a point right including driver, but who is having Maruti lower

segment or may be any other Honda, Hyundai lower segment always full with the seat capacity. The seat capacity is 5, they are always trying to fit more than 7, 8 people. So, this is the extra challenge that you are minimum cost product, but then you should carry that maximum weight, but then you talk about these different products are there. So, how you will make one strategy? When you cannot do that make one strategy, then Maruti came with two different supply chain, you see it is so difficult to manage one supply chain and Maruti traditional supply chain is there and one is under NEXA.

So, now NEXA now the this is the perception in the market if you want luxury premium products. So, those items products are there in the NEXA showroom and if you want the base you products right they are there in the maruti traditional stores right so that different supply chain there are so many this is not only maruti is doing if you talk about a banking services icici bank is different different branch is there may be in the same city same city financial investment branch will be there same city your insurance selling branch will be there so many different products different branches right so that is how you can do that product life cycle it is again very very important see this is the product life cycle up to introduction stage we we can characterize introduction stage how our demand is and our supply both are very very uncertain That means, here we are just we have just introduced we are not sure about demand. So, we need to keep very high margin at that point of time that means, high price because we need to recover the initial R and D cost as well as we are not sure about the manufacturing, standardization is not there, we are struggling with the defects all those things are there. So, that means, introduction stage your and then you should be here you should be responsive because you are not clear with the demand, you are not clear with the supply those things are not clear, but as your product will mature will grow your supply and demand in that way will be more saturated, you are more certain with your supplies and demand but another challenge will come in terms of the competition.

Now other players will also penetrate into the market so obviously now you need to lower down the price you need to lower down the margins and that you can do how you can do that because your supply and demand now you can fix your supply and demand parameters you have standardized the production process right. So, this product life cycle if early stages you should be responsive, but when you are maturing you are going away with the product then your supply chain should be very very efficient. competitive changes over the time globalization is there more competition will come then obviously, you have to change your strategy if amazon is saying that same day delivery. So, somewhere myntra flipkart all other players ebay they have to ensure that. And now the next trend is like I was talking about the in the I think last to last session I was talking about what else is left in the e-commerce industry.

I just talked about this that now the same day delivery if you are promising that your 90 to 95 percent will be products will be delivered same day that is the major breakthrough. If you your supply chain can support that and the same day evening when I recorded this session that session. I saw the ad from Amazon or Flipkart I forgot they are promising that same day delivery and this is going to be the next you know e-commerce trend and then everyone will be moving towards that right. So, we do not have that much time to wait for that. Now, how we can tailor our supply chain to get that strategic fit.

Need for tailored supply chain because multiple customers are there, their demands, patterns, variety they want diverse products we have. So, no one size fit, no strategic fit, pure strategy will work right, it is not feasible. For one may be you need very efficient supply chain you are selling Maruti Alto through your traditional store and then Baleno you are selling may be high status product little higher compare to that and then you are selling through your Nexon supply chain right. So, examples of tailored supply chain Dell is very good example because earlier what Dell was doing, for responsiveness they were recording the orders through online and then they were configuring the systems right as per the requirement but then they realize that ok we need to because this lead time is huge they are placing order we are manufacturing in the manufacturing hub then we are shipping the product Why do not we set up we go with the traditional kind of chain where responsiveness will be there still you can configure your system what we should have retailer in the local market.

So, that your retailer can fulfill the some of the immediate demand for the regular products and any specialized that high configuration is required then we can take some lead time of may be 1 or 2 days and we can maintain inventory there only with the retailer from there we can fulfill the demand. So, Levi's stores they also they have standardized size jeans also and customized jeans also right. So, then how you can do that? So, you for obviously, for customized jeans you need to be responsive for standardized you will be efficient. So, if you are looking for standard products always you will get the lower price right. Designing a tailored supply chain what will be the key issue? Key issue will be that designing a supply chain that is efficient is obviously, when uncertainty is not there then you can go for that, but if it is there then you need to tailor your supply chain toward the responsiveness right that is very clear.

Strategies for tailoring the supply chain so that means, the maximum efficiency ok and then utilizing different manufacturing processes and transportation modes. If you are saying that faster delivery through drone or through air you can ship. If you are saying sustainable delivery through ship you can transport. If you are saying that cost efficient

delivery through ship or through road or through train you can go right. So, then again whether you are maintaining or inventory at the centralized store or at the distributed location.

So, then also will change your strategy with respect to your competitive strategy. So, again you can see fast moving item with low implied uncertainty stored in decentralized location, where you are sure about the demand you can set up your that retail chain there and you can consume that, but you are not sure like blue nile you can keep the diamonds in the centralized store and then from anywhere if the demand is coming you can supply the product right you can consider another example of pharmaceutical industry any new demand is coming new drug is coming you are not sure first is product availability is very big question. Then then you are promoting through your medical representative they are meeting the doctor, doctor are prescribing your drug and then you are finding too difficult to find that drug right. So, then you will search for the alternative. How you can ensure during the introduction time? This is a big big challenge maybe it is accepted maybe it is not accepted.

the reaction and all that after taking that pill how it will be you know. So, then you are not sure about the demand you are not sure about the uncertainty. So, during that time you should be responsive how quickly you can respond to that. Now, expanding strategic scope of a supply chain.

So, we can see how we can expand that. Now, this is not limited scope to one functional department or one operation or one stakeholder, this should be across all the functions, across all the supply chain stages, across all the stakeholders. Shared objective is the main motto of this expanding the strategic scope. We will see 5 different strategies. intracompany, intra-operation scope, intra-company, intra-functional scope, but first we will understand what is the meaning of intra-company, intra-operation, intra-functional and then inter-company, inter-operation, inter-functional. Intra-operation scope is very minimized local view within let us say I am doing manufacturing, this is one function is manufacturing.

this is any department in the any unit right. Now, manufacturing whatever I am doing is first is obviously, my process of converting raw material into finished, I am doing the handling of the material as well, I am maintaining the inventory as well, I am doing the change over as well from one model to other model, I am doing the packaging as well, these all are different functions I am doing within one function, different activities, activities means operation. Intra-operation means I am only concerned about the process. Process I am saying I am very efficient, I want to reduce the cost of doing this, but on the

other hand I am saying packaging, inventory may be I am targeting responsiveness, may be another parameter, right. So, that means local view, one operation I am targeting efficiency, other operation is not at all aligned with that. Second is now limited scope, this is the problem if you are having that limited scope you are not even aligning even one single department, intra functional.

Now, within each department now manufacturing is one department, marketing is another department, storage is another department, distribution is another department. sourcing who is handling the raw material procurement is another department R&D is another department quality is another department ensuring the quality quality assurance is another department right but now we are saying we are little bit we are moving to the next level and we are saying that within one functional unit will align all the strategies means all these activities operation within manufacturing function should be aligned either we are talking about efficiency. So, all should be aligned towards efficiency. So, we are getting the next level. Now, inter functional scope let us say we have different function I am talking about only manufacturing again.

So, manufacturing means within manufacturing unit all the functions of let us say manufacturing, process, inventory, R and D all these functions should be aligned. This is inter functional. All the functions within one unit stakeholder should be aligned. Now, inter company scope let us say other than manufacturer I am adding distributor as well.

I am adding retailer, then may be your raw material suppliers. So, all these are doing different function units right, raw material supplier is also doing manufacturing, he is also doing auditing, he is also doing sourcing, he is also maintaining the records, accounting, HR all those functional units are there. Inter company means all the if I am saying that efficiency is the main target all functions within one organization should be aligned towards efficiency, then all organization involved in that supply chain should be aligned towards the efficiency. This is the complete view maximizing the supply chain surplus right. So, if we understood these concept we will quickly go through. the diagram which i wanted to show you agile inter company scope means how quickly you will change right so that we will see this is what i was talking about now first is this only here what we are doing one operation let us say this is distributor this operation distributor is doing one operation let us say distributor is pack doing the packaging he is doing the inventory practices as well right, but packaging only he is maintaining right now and towards efficiency he is not bothering about the inventory sometime he is stock out sometime he is keeping the excess inventory, but then what I will do I will maximize the scope and I will keep intra company still the company is only one distributor.

and intrafunctional that means, intrafunctional means supply chain strategy only I am talking about. So, within supply chain strategy I will align all the strategies towards either efficiency or responsiveness or wherever I want to set the parameter of responsiveness or efficiency right. So, these different are functions like I was talking about manufacturing, R&D, HR, accounting here I have this diagram includes these 4 different functions competitive strategy is one function product development strategy is another function supply chain strategy another function marketing strategy another function you can include R and D you can include your HR you can include accounting you can include purchase department warehousing that also functions right and these are different players now let us broader this picture and come to one particular player and align all the strategies all the functions this is what I was talking about. Now, within that player if distributed want to want wants to be efficient.

So, competitive strategy will be minimum cost. Product development strategy will be if he is developing because distributor is not developing the product. If we will take the example of manufacture, then we can say that manufacturing strategy will be minimum cost, right. Supply chain strategy will be minimum cost. All the functional units toward the minimizing the cost. Then we will expand this view to the maximum where we are talking about all players are talking about responsiveness.

or may be responsiveness on 1 to 10 parameters we are setting 9 and cost efficiency 1 to 10 parameters we are setting somewhere 5. This also can happen mixture of strategy. Another supply chain can come which will say cost will be 8 and then responsiveness will be 7. So, this is how you can expand the scope of the strategic fit right. So, key drivers that improve supply chain strategy obviously, you need to.

align the markets with you only then both the strategy will be getting the best fit global growth and expansion competitive strategy is also going for growth your supply. So, that way your supply chain need to support your competitive strategy you need to set up your distribution fulfillment centers in the global markets as well. Supplier relationship collaborative approach your competition is how you can minimize the resources right, cost of acquiring the raw material, supplier collaboration, process redesign, if any inaccuracy is there with the process you need to update the process. And then obviously, you need to track all the KPIs whatever you are recorded and you want to target. What are the challenges to achieve this strategic fit? Obviously, we talked about different variety and shrinking life cycle.

thing is you quickly you are you are providing so many different products. So, then also

it is a challenge to get the because many products. So, then sometime you are saying efficient and then the demand is changing for some other product you have to be responsive. So, this is again will disturb you from that strategic path zone we talked about this strategic path the strategic fit right. So, it will disturb you from that zone this is strategic fit zone where you are talking about let us say if it is efficiency is here responsiveness here that means, it is a demand is certain here certainty is here it you are very uncertain with the demand right. Then globalization and increasing uncertainty challenge will be obviously, globalization is giving you access to the overseas suppliers, overseas markets, but also then disruption happens then a risk is also there.

So, how you can do that? You need to build the flexibility. If something goes wrong with your overseas suppliers, how you can ensure the smooth delivery of the product with your in-house suppliers. Honda very best example you know they are coming up with those kind of production lines, where they are manufacturing. sedan cars, SUVs or hatchback cars on the they can manufacture on the same production line right. If any thing goes wrong with the demand of may be sedan cars you can switch to the manufacturing of SUVs or some other segment right.

Fragmentation of supply chain challenges increased outsourcing. Now, what is there? When you are outsourcing some functions obviously, you are losing the control that means, ownership is gone. So, your overall control on the supply chain is gone. I can motivate my retailer to keep extra inventory to be responsive, but in the end. he is only responsible for that and he because we do not have we cannot force him right so in the end if he is convinced with the demand pattern obviously he will maintain if he is not convinced with the demand pattern he will not maintain that So, what is the solution? Solution is you ensure your retailer even if your inventory is not consumed properly. So, we will take it back we will reprocess it or whatever we will sell in the second market.

So, cost we will be bearing you just keep the inventory then it can happen right. change in technology because rapidly you are changing the technology product shorter time. So, life cycle is now getting shorter. So, again getting shorter you are starting new product introduction already I highlighted the characteristics of the introduction stage, uncertainty with the supply, uncertainty with the demand. margin you need to keep high, R and D cost you need to recover and then you need to be responsive supply chain.

Like Dell shifted from direct sales now they are providing through retail outlet. So, that is another example. Environment sustainability measures are coming right. So, you again you need to change like Myantra did they change their packaging, Starbucks is also very good example.

So, you need to come with those policies. Now, case of Walmart. Quickly I want to just give you the picture if you will talk about the Walmart on we will talk about all the you know the drivers we talked about we talked about facilities, we talked about inventory logistics drivers, we talked about transportation and then we talked about cross functional drivers sourcing. pricing and information. I just want to elaborate on each of these 6 drivers how Walmart leading giant right in the industry highest sales per square feet, how Walmart is handling all those 6 drivers, how they are coming up with the supply chain strategy. So, what they are doing with the facilities and inventory, they are having centralized distribution centers. Now we have discussed that when you are having centralized stores that means, that means you are not keeping inventory at multiple location rather you are keeping inventory at one location.

So, inventory cost is minimized. Facility cost is also minimized because instead of setting up 10 different facilities you are having one centralized facility. So, facility operation cost is also down. So, in that way they are saving huge cost in these two parameters, huge cost inventory almost they are minimum inventory, but they are keeping maximum inventory in the centralized store. Transportation, now transportation they are responsive, here they are efficient, see this is the perfect example to code with first two. drivers facility and inventory they are efficient with transportation they are providing the responsiveness by running their own fleets they are running their own fleets to deliver the items.

So, the cost extra cost they are bearing of running their personal fleet to deliver the items they are recovering from this. So, here cost will be little higher, but still you are in the profit side because you are not maintaining any. So, what they are doing for centralized stores they are doing the cross docking for transportation. Basic model is cross docking and we have seen cross docking is the best example where you are not maintaining inventory that transportation cost is cutting down and you are consolidating orders at one location from where you are shipping the trucks to different pin code wise right.

Sourcing, for sourcing another cost efficient parameter. You see again they are targeting on efficiency side and they are feeding very very large orders to their raw material suppliers negotiating huge on price. So, they are lowering down the cost. Then pricing I will talk about later information. Information again they are very very responsiveness. They are setting up huge information network so that they can collect whole information and provide the product, meet the customer orders, maintain that inventory, all the variety they are promising with minimum level.

So, here they are responsive. Pricing, very best strategy of pricing is? everyday low pricing the unique feature of walmart is everyday low pricing means whenever you will visit our store you will get the same price so as a customer i feel ok i need not to negotiate much with that because it is fixed kind of pricing when it is fixed kind of pricing the very best you know the implication of this kind of strategy is your demand is fixed your supply is fixed when you are sure about your demand and supply that means pricing also you are efficient. So, you can see how those 6 different drivers Walmart is maintaining overall the result is huge variety, volume quantity is available, minimum price, fair quality right these are some of the parameters we can characterize the Walmart. supply chain. So, you can just go through the complete case key takeaways reduced its out of stock occurrences by 16 percent right. You can just go through I have explained every aspect of this supply chain.

Another supply chain is Dell supply chain. So, I talked about before 2007 they were taking orders online. designing the product right. So, direct sale model they were implementing they were taking the orders online and then directly shipping to the customer in that way they were very close contact with the customer getting real time information, but the problem is the distance between the customer and their manufacturing sites from there they were you know shipping the orders. So, that means, lead time is one thing, build to order you place the order then you they will start the manufacturing then again lead time will increase. Just in time they can ensure they can minimize the cost in just in time and inventory management because inventory is not required you are placing order will our raw material suppliers will supply as and when required we can cut down the cost.

So, minimum cash is required supplier collaboration is obviously, required when you are implementing that kind of system just in time because as soon as you need to process the order you will do that, but after 2007. They also experience that other players are now very closely linked with the end customer because they are having retail distribution chain. We should also go near to the customer. Now, shift to retail distribution partner partnering with some retailers right.

So, now, again product diversification if you are doing that let us not only. limit to PCs only, we will come with the different laptops configuration, we will come with some other you know electronics item with headphones with whatever other related items you can add into that. Supply chain optimization they focused how they can implement because now the complete supply chain they need to manage, they need to manage they have included one more player into their supply chain that is their retailer. Strategic

partners obviously, you will talk about them and then sustainability environmental initiatives also obviously, now customers are very aware and also regulatory authorities WEEE. that waste coming from electrical and electronics products equipments you need to handle because many measures are coming in that way. So, customer centric approach still they are focusing on that only thing is they have added more into responsiveness and efficiency because they have moved their retail chain near to the customer right.

So, this is another very good example. So, you can see how we identified. based on the market analysis environmental analysis and internal analysis we found the opportunities we found what are the our strengths how we can exploit those opportunities then we came up with one competitive strategy how we will compete with the different players in the market, then we thought ok we fix this strategy as per all the forces and then we need to design the complete supply chain strategy. Then we talked about how this complete supply chain strategy should be aligned with the your competitive strategy to get that strategic fit, we have seen some parameters how this strategic fit can be disturbed with your multiple products, multiple customers, some life cycle changing your uncertainty from the supply, uncertainty from the demand, globalization all those things right any change in the technology will disturb your complete strategic fit right. So, that is all about how we can develop the supply chain strategy in line with the competitive strategy. So, major source that is used is this book of Chopra and Mandel supply chain management, strategy, planning and operation.

So, you can just go through this book for further reading. So, that is all from my side. Thank you very much.