

Logistics & Supply Chain Management

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Lecture 33 : Strategic Supply Chain Management (Contd.)

so hello dear friends welcome back to NPTEL online course on logistics and supply chain management so in the last session we started discussion on strategic supply chain management and we'll continue this discussion in this session as well and here we'll try to we talked about the strategic supply chain management process, what are the different steps in that, and in that we identified that the second very important step is to analyze the environment, whether you are talking about internal or external environment. So here we'll see some of the models, how we can implement those models to analyze our internal and external your environment, right? And then we'll talk about supply chain strategy implementation and we'll end with the case study, right? So quickly now another step is developing supply chain strategy. And when talking about the strategy is obviously for the future. Whenever we are going, we are talking about planning strategy, we are making for future which is very, very uncertain, right? and complex in that way so that means you need to understand all the dynamics in the environment may be any fluctuations coming from the suppliers and from the manufacturing from the warehouse distribution channel from the customer end you need to tap those things so that means this environment is a kind of you know a kind of your factor, very important factor which will force you to every day change your strategy. So it's not that today whatever decision you have taken will last for longer.

And obviously the factors which are responsible for changing this is evolving customer demands changing quickly right technological advancements are there so any obsolete technology if you are still producing the same product no one is going to buy that then global market dynamics if your local market is not changing maybe the changing force is coming from the global market and sometimes the regulatory authorities like they banned BS3 petrol engine BS4 diesel engines so now you need to come up with the next version of engines right so that you can ensure the sustainability the environmental measures whatever they are targeting right so to navigate this environment as well your internal or your external environment we have some models when you will apply those models you can tap those forces you can predict those forces you can track those forces right so that you can develop your strategy in the dynamic environment so talking about your external environment so why this external environment is important because whatever we are going to offer in terms of product or services where we will offer obviously we are going

to offer to the external environment right and so designing that basket of product and services including all the features obviously you need to find out what you can choose to target and when you are saying that what you can choose target obviously you need to consider all this external environment factors quickly we will go through let's start with the economic factors economic factors in terms of you can divide maybe the consumers maybe the pricing you can talk about maybe the competition you can talk about if your consumer you need to find out where you are targeting it's a kind of low customer group medium or higher class group right so accordingly you need to design your pricing policy your buffet of that product and services accordingly you will fix your pricing as well right and then competition if the monopoly market is there so then you can somewhere you can rule and change the pricing policies quality measures and all those things right but yes then if it is not monopolistic market then you need to take care of your all other rivalry how your competitors are competing with the pricing policies right then talking about physical this is talking about your basically supply chain distribution network right how physically you are delivering the product, placing the product in the market, either you are going through online media or you are going through retail chain or organized store or unorganized store or whatever all the possible ways are open for you. social culture social dimensions lifestyle behavior attitude personality where you are targeting cultural subcultural dimensions all you will demographic features all you will include while analyzing the external environment is it feasible for a kind of maybe that particular culture talking about the Indian culture is little different when the Walmart is targeting the US market that is totally different so that is also very important when you are designing the strategy and analyzing the your external environment .Then global forces how global forces are behaving how global players are coming into the Indian market acquiring the flipkart walmart came into Indian market acquiring the 80% stake in flipkart right how the customers or the other industry players will react to that how flipkart culture will change in that way when someone else is acquiring kind of walmart organization right technological how quickly technology is changing in that particular product industry or services industry so that you can you know if very shorter life cycle so you need to ensure the consumption of the product as well you need to minimize the inventory so that can be consumed if something new will come obviously all will buy the new product so your you will be end up with the huge inventory in your warehouse only what are the political legal you know, developments, any change in the political ruling and then they will come up with their special policies, some political parties are targeting on some particular infrastructure development, some are targeting on maybe more employment generation, different issues are there, how they are contexting the elections and then they are ruling, right? Then demographic features already we talked about in connection with the social culture dimensions, how demographically you need to think about where you are going to distribute your product, what is the you can say in that way how you can characterize that total population which you are going to target through your

distribution supply chain network. so when you fix your external environment then you need to analyze within yourself what capabilities, capacities I am having, resources I am having may be there are huge potential for may be the technological innovation .

But I know that I am not very good with my R&D skills my team is not having those R&D skills I am always kind of follower player I am kind of player who is very good with the manufacturing may be someone else with come up with that product but I am so good with manufacturing with assembly that I can cut down the cost drastically but I am not good with R&D skills maybe I'm good with the inventory management policies but not very good with the distribution and mile delivery so then you need to analyze your capabilities competencies and where you are not competent maybe you can go for outsourcing so you need to pick what you can do right now you found what is the external environment how it is changing you know the internal environment in that way now you can go for the development of the strategy now we will go for some of the models how we can analyze our internal how we can analyze our external environment before going to that how we will do the internal analysis will help us to go for the development of your strategic competitiveness see we are every organization is having tangible and intangible resources tangible resources are your infrastructure, machines or whatever you know the production facilities all those resources you are having that is tangible intangible is your brand image your recipe what secret recipe you are using how you are your skills right your soft skills your connection with the suppliers your connection with the end customer those are kind of your intangible resources so putting together your tangible intangible resources you will come up with your capabilities you will develop your capabilities based on whatever resources you have those capabilities will be your core competencies as walmart is very very cost efficient product distributing partner right on the other hand zara is a kind of supply chain which is very very responsible because they are working with their innovation pro strategy where they are frequently changing their styles right then discovering core competencies once you have set of capabilities with you if you are not aware about your core competencies you can target how valuable first criterion should be valuable customer should be ready to pay for that that value you are creating rare that means no other player is promising that or delivering that costly to imitate even if someone wants to copy even then they cannot copy right and then non-substitutable there should be no substitute of that particular product or services this way if you are meeting those four criteria then you can say you have developed the core competency then you talk about value chain analysis if something you are not good at maybe R&D let us outsource R&D maybe marketing and sales let us outsource marketing and sales maybe I am not good with the warehousing let us outsource that one So, that you need to identify. This way when you will develop these four major parameters, then you will come up with the competitive advantage that we want to be leader in that manufacturing, right. So, let us source ideas, let us source

material, raw material, let us source distribution everything, but we are good with our cooking. So, let us open the restaurant and raw material will be sourced by someone else, distribution done by ZOMATO and Swiggy and focus on our recipe only and that will be your strategy competitiveness that we will be targeting to the market right so this already i talked about you can create value value is that thing which will you know ensure the above average returns means average returns means if you invest average in the market what other players are getting that is average return right so if anything you are coming up with new product design or new feature or maybe updated technology how it will help you to get above average returns right so that will only help if you are creating value to the customer and value is if something you are adding attributes performance in the product right or any other feature which customers are ready to pay right that is the value creating activity right so then creating competitive advantage how you can create competitive advantage with your unique set of skills those tangible intangible assets which you worked on and converted into your core competency and then you developed your core competence competitiveness based on which is very rare no one can substitute right there is no competition very difficult to you know copy that kind of recipe so then you are creating the competitive advantage that will provide you competitive advantage right edge .So first model here is SWOT analysis which we can use to you know analyze the internal as well as external environment and when we are talking about streamlining the supply chain operations so you need to understand your strengths you need to understand your weaknesses you need to understand what are the opportunities and threats coming from the external market strengths and weaknesses will be your internal environment coming from the internal environment opportunities and threats obviously will be posed by your external environment so your robust foundation is required for the successful logistics and how you can ensure that by addressing all your weaknesses either you need to improve those weaknesses and if you cannot improve you think that maybe much investment is required or not your core competency let us outsource to some competent partner so that that value can be created cost can be minimized that headache of you know developing those extra skills can be minimized then capitalize your strengths whatever your strengths if you are very good in delivering like amazon is promising two days delivery one day delivery so that if you are promising your strengths right you can convince the audience right then leveraging opportunities whatever opportunities are coming in the next market you need to leverage on those opportunities by mitigating the risk coming from the threats so usually if you go through any SWOT analysis these are the basic points I will talk about in context with the supply chain but quickly what are strengths strengths are usually what you are good at right your competitors are not having those things right you have some extra resources maybe you have very good relationship with your suppliers which walmart is having so always you are feeding them large order and enjoying scales of economy negotiating the prices heavily right and then whatever your tangible resources KFC, MACD everywhere

anywhere any part of the world you go their recipe you just you have that belief set in their this brand that you will get that minimum quality but maybe some local player which you never heard if you are going to some other country or even in India also now these are well known players so what they are having extra they are may be probably getting the same type of raw material right more or less but then recipe how they are cooking how they are preparing weaknesses these are some of the points may be market complaints are coming customer feedback they are not happy we are not like the weakness I highlighted that we are not good with the R&D, but we are very good with the manufacturing.

So let us then promise our manufacturing skills only and outsource the R&D product development part to some other team, to some other stakeholder, right? then opportunities whatever opportunities are coming how you can analyze those opportunity like the pestle analysis we did where you can analyze the external environment any cultural change in the market you can assess that right any kind of disaster in terms of pandemic is coming in terms of cloud bursting in terms of natural disaster any earthquake so you can assess those opportunities those threats in advance and can then design your strategy .So these are some of the issues you can just go through for any SWOT analysis very generic but we will go for the sort analysis when we are talking about developing the supply chain strategy so here I have included two perspective one is your company manufacturing perspective another one is vendor strength there can be you can talk about the strength weaknesses opportunities and threats related to transportation related to warehousing related to distribution network all these related to implementing digital twins. so all those different functional area so just couple of examples we'll take here we'll just understand these are not only solely the points right you can work on all those points related to particular stakeholder or activity so company strength in terms of supply chain strength what can be your strength your purchasing power if you have that purchasing power of raw material you can negotiate on price you can negotiate on quality as well right inventory turnover rate if your inventory turnover rate is very high quickly you are selling the product compared to your inventory you are keeping that means that is also your strength anything you are making people are just dying like the new series of apple iphone is coming people are just standing in the queue to take that new phone right so if you are having that you can leverage on that right payment history how good you are with the payment if you are very clear with the payment terms if you have promised your suppliers that within 60 days or 90 days you will make the payment and 90% of the payments are done within that period that means you are good with the track record right and 10% because of some quality issues sometimes you are returning the lot those many things are there. Which we can understand right so that is another strength? which you can carry right multiple vendors if you are having then also you are having negotiation power? so if someone is lowering down the price you can negotiate on that on the other

hand if I'll talk about the vendor strength credit terms right if he is offering longer period of time to repay right then also it's kind of strength quality no one can you know match the quality so then that vendor you will obviously you will go for and as a customer they are also aware that which processor you are using inside your pc when you are manufacturing dell purchasing dell laptop or lenovo laptop or any other xyz laptop who is the you know sometimes those it is not that always these players are hidden who are providing the raw material they are known they are well established and we see we say that if that processor you are using so obviously if it is by intel we will use that right then willingness to retain inventory if that is very big kind of your supplier he can absorb those kind of you know inventory extra inventory cost he can be efficient in that way setting up the manufacturing facility near to you just in time you can implement these can be the you know strength of your organization talking about the weaknesses so weaknesses can be you can reverse these points just you are not good with the manufacturing that is also your weakness may be manufacturing cost is very high that is how you can be more productive you are still using automated manual manufacturing where you can go for automation where your other competitors are using automation so that means they are producing more products number of units with lesser cost their productivity is high but your productivity is because of your manual this is one of the weakness right so other weakness may be so inaccurate purchases you are not sure how much you should purchase raw material sometimes you are placing order for larger quantity sometimes for lesser quantity in that way you are not in a position to negotiate with the vendor right you are not good with the distribution network but still you are managing your own distribution network so that is also a kind of weakness and then vendor weakness can be may be he is struggling with the quality may be he is struggling with meeting the delivery schedules he is struggling with producing that quantity scale up scale down cannot do this scale up scale down can be the company weakness as well so quickly how quickly you can respond to that if you need to manufacture less how you can reduce the cost because if you are having multiple models how you can design your production assembly in such a way that if there is less demand for some models for few models you can channelize other models on those production lines how flexible your production lines are if those production lines are kind of dedicated production lines where you may not produce B model on A model even A there is nothing much to produce even that is lying vacant that production line you are not using so that kind of things can be there supply chain opportunities, company opportunity just you can quickly go through all those points again what can be the opportunity like I talked about in e-commerce market one day delivery if today you promise that 100% one day delivery all the traffic will go to your website right and then how you can improve the delivery experience if I'm ordering maybe five or six orders I'm receiving six different messages from the courier partner these are out for delivery today why don't you combine consolidate into one order and we'll get the one delivery all six times you will not ring my

bell and then I'm getting that you know enhanced customer very small point but sometimes now customer is also whole day is not you know free that he is waiting for the product and visit of that courier partner and always ringing the bell and all those can be sometimes irritating as well so why don't you consolidate into one delivery that can be one opportunity right so expansion of your capacity how you can do that if you are not leveraging on economies of scale Why don't you expand to some other market? some nearby market right so this is the kind of opportunity you can sense vendor opportunity same way vendor can also you know improve upon their services upon the quality upon the delivery they can update their manufacturing technology come up with the latest technology right so this is the opportunity threats again posed by the external environment suddenly government is coming up with the banning of those you know, diesel engines, like I was talking about BS4 engine, so now you need to shift to the new technology. Government is now very, or regulatory authorities, environmental agencies working, different environmental agencies, WHO coming up with strict guidelines that electrical waste should be minimized.

how you can do that? how you can ensure the longevity? so this is a kind of threat then sustainability measure overnight your customers are getting more aware how they can reduce the carbon footprint so then this is again a kind of threat then other threats natural disaster or maybe kind of pandemic shutdown now complete shutdown how you will meet the customer demand? how still you will ensure your supply chain is moving? smoothly when there is any flood how you can ensure the smooth supply of the medicines smooth supply of the food packets emergency supply chain disaster relief supply chains how you can ensure so that is always promising the emergency services so those kind of threats can be there and in terms of vendor also if those threats are there sometimes more demand and next day I am saying that customer are shifting to some other product how you will manage that, like overnight customer shifted to Jio, then what the Vodafone, Hutch, other networks they will do with their existing network structure, how they will utilize that, so better to divest into something else to liquidate that, sell those things to maybe Jio or Airtel and maybe merge so that they come they can come strongly to fight with one player this is how they can manage that right so these are some of the threats right these are not only the points only few examples i have quoted here but yes different activities different opportunities and threats you can find out let's talk about one case study again amazon how they are dealing with all those opportunity threats with coming up with their supply chain strategy where they are always promising highly efficient supply chain and they think that this is the key key measure for their success and how three fundamental elements they are focusing on extensible warehouse and distribution network all coverage of all the pin codes diversified fleet right how you can diversify the transportation advanced technology quickly you are sharing the information and you can see 2373 active facilities they are managing single in if you talk about North

America alone more than 200 fulfillment centers so worldwide presence how they are ensuring through their efficient and affordable supply chains, right. There is a very beautiful program run by this Amazon that is fulfilled by Amazon where they are collaborating making a kind of supply chain strategy where they are closely collaborating with their suppliers what they are doing they are asking their suppliers to supply the products to them to their distribution or fulfillment center and then they will do Amazon will do the packaging and delivery see how good it is that so then under that program FBA program what they did they also tried to develop the technology what suppliers are using for manufacturing for packaging for delivering and then they also implemented the automation what they were using in their warehouses to you know maintain the inventory to how they can be cost efficient fulfillment centers right so they helped with that also so this is a kind of strategy where they work very closely with their vendors they ask them to supply in advance where the packaging delivery is being done by the Amazon only and they introduce the Scout of 6 wheeled automatic delivery robot to carry the product to the customer doors. So key takeaway you can see after implementing this close network with their suppliers and making them a very much part of their supply chain by implementing FBA onsite program, they increase this inventory turnover by 8.39 times. that means 8.

39 times they are moving their inventory consuming their inventory rather than means ensuring sales then they are keeping the inventory how efficient they are with their inventory management so these are some of the parameters where they worked cost effective advantage for revenue generation save more time need less warehousing Customer feedback, sales volume, business expansion, how they can go with these parameters, they set all these parameters to get that efficient supply chain. Talking about SWOT analysis implementing on Amazon, so obviously it sends brand and entity well known and pioneer in that. cost advantage we get low cost products and continuous business improvement they are doing that and we have seen over the time in terms of delivery they are promising if we talk about weaknesses obviously e-commerce industry is a kind of industry their margins are very low because the competition is huge and seasonality is also affecting sometime there is high demand sometime there is low demand what you will do with your resources when there is less demand how good you can utilize those resources opportunities you can diversify e-commerce business into those areas where it is not tapping much market potential like furniture industry we talked about we talked about your grocery industry so how we can expand more into still that mobile industry we have explored much but still where to go to tap the full market potential so how we can go for so continues to increase awareness of its branded products and services .how they can go for expansion of local businesses they have included the local partner also ? local suppliers like local manufacturers local products. Threats can be obviously low margin low profit will be there and then patent infringement is there obviously this kind of industry is that we are not very high barriers are there any day you

can collaborate with any even small restaurant can collaborate with you know Swiggy and Zomato likewise small seller can collaborate if today they are collaborating with Amazon delivering the fresh vegetables tomorrow they can set up their own distribution network when they have that much resources to cover that one particular city right so then obviously security issues are one thing when you are talking about implementing digital networks right so those are always required now Porter five forces model this was given by professor Michael Porter professor of Harvard Business School where he talked about the role of your competitors when developing your competitive strategy and then he wrote this book article how competitive forces shape strategy where he talked about there is you know more than their competitors there are other factors which we need to tap those factors to when we are thinking of developing our strategy right so how quickly we can adapt to the supply chain management those dynamics of the environment so that we can come up with the accurate or perfect strategy and these are Porter's five forces model which is known.

Five forces, five different aspects Porter has included. so competitive rivalry is obviously the center of this model where we talk about the competition of that particular industry and we talk about number of how many competitors are there how you are differently with the quality and other differences if you are providing some extra features what cost is there customer is loyal or not in that particular industry because nowadays customer loyalty is a very fragile kind of statement if you are saying customer is loyal so we are getting opportunities and quickly as a customer we are switching from one before placing order a very kind of standardized item I am getting little less price obviously I will go for that if I am getting better experience in terms of delivery in less time obviously I will go for that so you need to analyze your complete competition in the market then we need to know the supplier power very limited number of suppliers so that means supplier is at that position where he can negotiate right and if many suppliers are there so then you can negotiate but then negotiation depends upon the quantity you are buying and then number of supplies size of suppliers uniqueness of services like if you are providing a kind of services where everyone is looking towards your services in the finished product then you have to you know go for that supplier only so cost of change what is the cost if you will change from one supplier to other supplier like we talked about it is not that easy to change the suppliers overnight because supplier is our strategic investment he is our strategic stakeholder so we are sharing the secret recipe how we are preparing the products what are the raw material manufacturing process we are sharing the designs everything so it is not that easy threat of new entry how this third force is affecting the industry if threat is very low anyone can enter into that industry then it is very difficult but if talking about a kind of a communication industry where Jio is you know obsoleting everything earlier we were having cable network but now they are setting up one solution they are providing you in your house they are making everything smart kind of house So

they are promising you need not to pay separately to your other dish or TV services you are getting, broadcasting services you are getting, through Jiofiber you will get that also. wifi you need not to pay extra for recharging your mobile you need not to pay extra only one single recharge and you will get all those services right so threat of new entry how you need to sense that also so if technology is very high strong that also very big threat right so suddenly new player cannot leverage on that if economies of scales producing in large order so then new player is that may be big threat, so barrier and then cost advantage if you are working on that because you have recovered all the initial investment cost R&D cost, stabilization cost, standardization of cost, standardizing the process now you have standardized everything you have recovered the initial cost also now you can lower down the price as well so but new player will not be easy for that player to you know reduce the price because initial investment cost is very high then the fourth player is by buyer power if you are buyer or customer is buyer how much quantity he is buying what quality he needs right negotiation power if only you are there you can you know motivate you can just at that point of time you are dominating the whole market so customer is not that a position that he can negotiate right whatever quality whatever variety whatever price you are offering services you are offering customer has to buy that there is no option so price sensitivity if the customer is so price sensitive quickly changing the product because of the price then also you need to take care cost of change how if the customer is changing from one service provider to other services provider then also you need to find out threat of substitution if any close product is coming you need to sense that also when your product can be replaced so in that way you need to come up with your renovation strategies innovation strategies you need to quickly change the product so how this water five forces model can be used to you know to design your supply chain strategy so supplier power supplier concentration if very high concentration limited number of suppliers will affect this decision right so then supplier is having more negotiation power switching cost how costly it is when you are switching from one supplier to other supplier not that easy because if you have standardized the process with one supplier you cannot change other supplier supplier relationships it takes time to develop those relationship where during your worst time your suppliers are the best stakeholder to support you so if you have developed those relationship buyer power you need to assess your power how much quantity you are buying you need to negotiate on that so price sensitivity under wire concentration if you are only wire so that means you have that negotiation power you can buy that product differentiation if you are offering different products any unique feature so obviously customer will come to you you have more bargaining power Threat of new entrant, so if anyone new is coming that is a potential threat for my existing product. threat of new entry you need to anticipate those entries barriers to entry you can see if high capital investment is required or technological investment is required or any regulatory restrictions are there so then barrier to entry are there you can leverage on that industry structure you need to analyze

the competitive landscape market concentration so that you can find out the industry what the market scenario is and then technological advancement any So, you need to keep on I mentioned that if you are renovating your product quickly coming up with the new features. So, obviously, your product will not be obsolete and then that will be very high threat big threat for the new entry threat of substitutes.

customer preferences if customer is now moving towards the substitute products right so then you need to tap those customers by you know providing the substitute products you need to move from your product to the other product right product differentiation how uniquely you are proposing your product and delivering the unique value regulatory environment regulatory environment also sometimes like your if you are producing a kind of using a kind of technology in your product which is you know not environmental efficient so then you need to take care you need to change that technology right so rivalry among competitors market growth opportunities for growth and expansion if it is growing you need to grow so how your other players competitors are capturing more market share how you can go for that right but during a time when like Jio came into market so most of the competitors were thinking to stabilize their at least the existing market share because that was the time because they were offering everything free so how they can do that now see this is a kind of strategy you need to understand during IPL Jio came with the free you know broadcasting of IPL so now they start maybe the strategy was when the world cup will come just after 2-3 days it is going to start so when it will come so then they can charge on that right but then to counter this now disney hot star is coming with free subscription of your world cup right so this how long you can go with these kind of counter strategies right you need to you need your your resources should support your these kind of competitive strategy right but barriers to entry if you are leveraging on those kind of barriers where either technology barriers are there or you have highly invested in the market to set up that distribution network so in that case the entry for barriers this entry will be very difficult for the new players right so next supply chain strategy implementation once you have figured out all the factors responsible for implementing for designing your supply chain strategy based on your internal environment analysis and external environment analysis now you can go ahead with implementing picking your strategy and implementing your strategy but this is for sure no one best strategy right so in game theory we talk about in operation research there is concept of game theory pure obsolete strategy we are going with one strategy only but usually we have seen in game theory that we are opting for mixture of strategies right mixed strategy so we are using partly may be 20% of cost efficient may be 60% of responsiveness may be then rest 20% cost efficient plus responsiveness right so those kind of strategies you need to only when you have configured your external and internal environment then you will identify what is the demand type how you need to design your product and services you need to know customer location where is customer location so

that you can move to that location manage inventory near to customer location and finally you need to know your supplier location as well because that distance between customer and supplier in between you are there so whether you want near to your supplier or near to your customer. Identify demand how whether your demand is seasonal linear consistent .if it is consistent you can be efficient you know number of shipments required frequency of shipment required how much quantity they are demanding you can forecast weekly forecast can be there monthly forecast can be there . But if it is seasonal that means during particular season that demand will be there you need to be very very you know strong with your distribution network during that time but when the season is off may be you are focusing on manufacturing keeping some inventory so that whenever there will be season you can channelize that same inventory right understand the product portfolio what your competitors are providing in the market what customers are liking if my customer is moving to some other brand why he is moving to some other brand because they are providing some other features which we are not providing so we need to understand that and include in our product portfolio then you need to know the customer location only then you can design the distribution network I need to know the location is far away from this metro city I cannot promise one day delivery if it is more than 500 kilometers so obviously it will take time I need to consolidate orders for that particular pin location or can i come with the one kind of big hub there nearby that so that same one day delivery can be ensured but whether i am getting those many orders from that particular reason right then you need to know location whether customer is within country outside right global shipments are also happening same way when you are talking about the supplier location whether your supply is coming from overseas so in overseas then you need to take little longer time because delivering will take little longer time. ok so that's why you are setting up your nearby vendors also so that during those emergency period that just in time can also be implemented and then you need to manage the inventory what type what size nature complexity depending upon that you are managing the inventory right to tap all those forces so there is one case study on this starbucks and we can see we have seen that how they have implemented that collaborative planning, forecasting and replenishment, we will extend this case study, Starbucks 35000 retail shops and you can see the revenue and they are more than 50 years of operation huge extensive network and one thing they are promising is efficient supply chain how they are promising that not only efficient they are also promising your quality coffee beans how they are doing that because they have vertically integrated they have collaborated with the these coffee producers right the coffee beans producers so those farmers under their standard for coffee and farmer equity and ESG plans they have developed that where they are talking about ethical environmental social quality criteria they have implemented right they are closely collaborating with all those coffee beans producer farmers more than 4 lakh producer directly collaborated with them they are ensuring the quality and delivery and same taste throughout so this complete supply chain

from the farmer field to the cup of coffee they have integrated beautifully so this is their supply chain strategy because by collaborating all those players including farmers in their supply chain they have created very very complicated supply chain but then peter gibbons he implemented this he transformed this complex supply chain into simple supply chain structure and then he took implemented adopted four stage model taken from that score model plan source manufacture and deliver remove the return part for these stages micro operation they have included in their supply chain and ensure that centralized logistics system so how they can coordinate with planning sourcing from the suppliers manufacturing that you know the coffee roasters who are roasting the beans right and delivering to the your starbucks coffee houses from there these are coffee beans are served to the customers right and then they divide the complete supply chain into four matrix operational safety how safe their operation equipment whatever they are using on time supply and order fulfillment rate how many times your own time overall cost of the supply chain and financial performance in terms of cost effectiveness and you can see this after streamlining this supply chain they have utilized the digital technologies as well so that they can implement the complete transparency throughout the network immediately they can collaborate, they can share information with the coffee producers if any quality measure they need to take, any deviation is there they can quickly instruct their coffee farmers, producers and coffee roasters as well who are roasting they are having the roasting machines and all they are producing the coffee beans so you can see After implementing this plan, program, they are now ethically sourcing 98.

6% and worldwide they have increased their revenue by 5%. This is huge 5% achievement. So, these are the books I referred in the last session as well. You can go for these basic models of strategic supply chain management we have taken from there. Some references you can go through.

So, thank you very much. That's all.