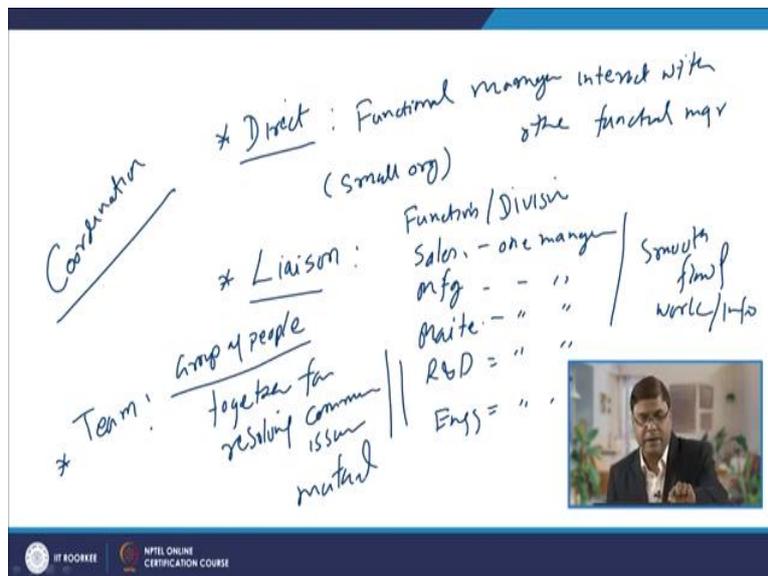


Principles of Industrial Engineering
Professor D K Dwivedi
Department of Mechanical Industrial Engineering
Indian Institute of Technology Roorkee
Lecture-06
Organizational Structure: Roles

Hello, I welcome you all in this presentation related with the subject Principles of Industrial Engineering and what we have seen that the organizational structures are developed. In such a way, that the different functions, groups are assigned the different kind of the responsibilities. While giving the kind of the jobs and responsibilities they will be doing. It is also, identified what will be the authorities, responsibilities and accountabilities related with that different positions.

And when, the number of functions, and groups and divisions are working in an organization they need to co-ordinate with each other for the smooth flow of the work. So, that the activities are done more efficiently and effectively. In order to produce the goods and services which can satisfy the requirement of the customers. So, in this connection as I have said co-ordination is extremely important across the functions, groups, divisions and the different layers which exists in the organization.

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So, whether you got to that if you see, what are the different ways through which co-ordination can be realized? Depending upon the size and the type of organization different kind of the approaches can be used for the co-ordination purpose. One is called direct coordination in which the functional managers directly interact with the other managers,

functional managers interact with the other functional managers or other groups and divisions for the purpose of smooth flow of the work or for getting things done through other functional groups and experts.

This kind of the approach may be good in case, of the small organizations where very few number of the groups and divisions exists and the number of the people involved associated with the organizations are less. Then, there is another one where the Liaisoning. Liaison in this, case since there can be the different number of the functions and divisions in the organization. So, like say we have Sales, Manufacturing, Maintenance, R and D, Engineering, etc.

So, these are the different functions. So, if it is required to interact across these functions one manager from the each function is assigned the duty of interacting with other functions for smooth flow of the work. So, there will be one manager in each function who will be interacting and coordinating the activities with the other functions for smooth flow of work or information. Then there is a third way by which the coordination is facilitated across the organizations is the teams.

Teams means, in this case a group of the people, teams are made, teams are developed having the representative from the different functions and they work together for resolving the common issues. Like, sometimes nature of the problem is such that, it cannot be addressed by one particular function or the group in that case teams are developed to look into those issues where the different functions are involved. Where inputs of that different functions are required to resolve the things to do the job. So, that the objectives of the organization can be realized.

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Coordination

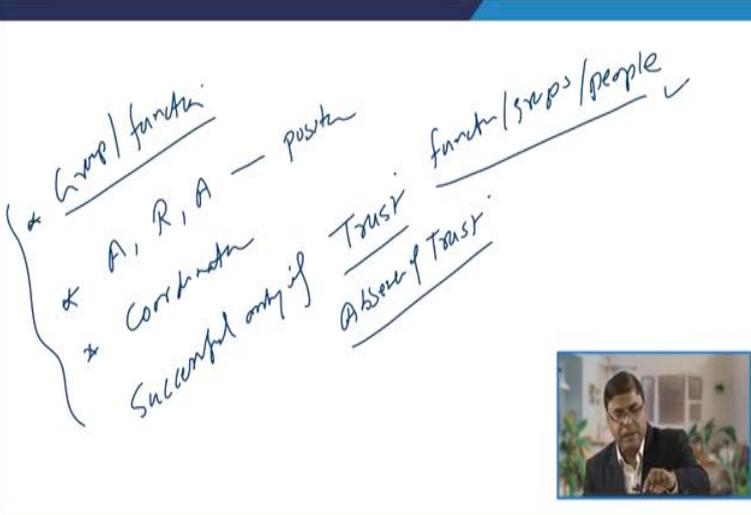
- ✓ Direct contact: when managers across the functions work together
- ✓ Liaison: better coordination: a manager in each function responsible for coordination with other
- ✓ Team: Major functions share mutual issues/problem



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So, this is what we can see here co-ordination through these three approaches direct contact, liaison and the teams. So, the teams where the problems are to be resolved by that different groups, different functions and the function share their expertise and in case of liaisoning one manager in each function is given responsibility to co-ordinate with others. While, in case of the direct contact managers across the functions work together for smooth flow of the work.

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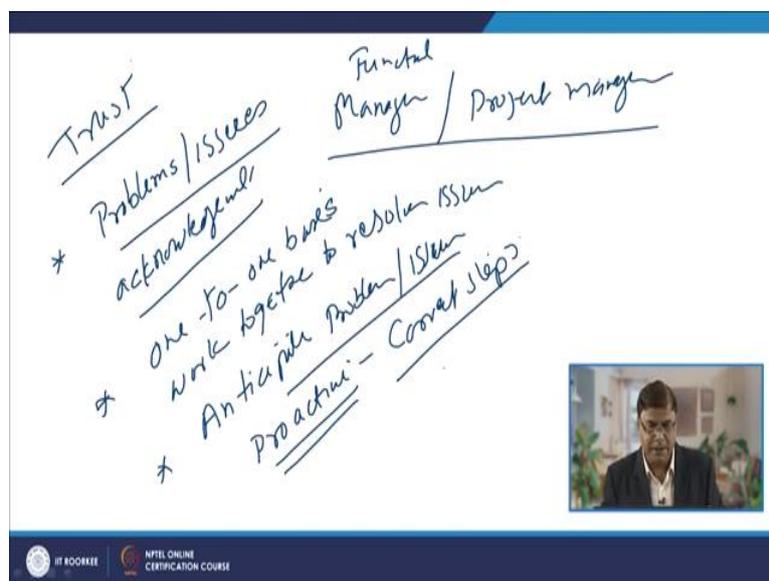
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Now, since we have, in the organizational structures the groups and the functions are developed to undertake different kinds of jobs and then authorities, responsibilities, accountabilities are identified for different positions and then they coordinate with each other

for smooth flow of work. These are the three things which are associated with any organization. But any organization will be successful only if there is a trust among the different functions, groups and the people who are associated with the organization.

So, they need to trust with each other in absence of the trust. So, absence of trust leads to the various difficulties and issues. So, what happens when the trust exists, when there is a trust between the different functions, groups and the people of the organization, the organization works very efficiently like when there is a trust.

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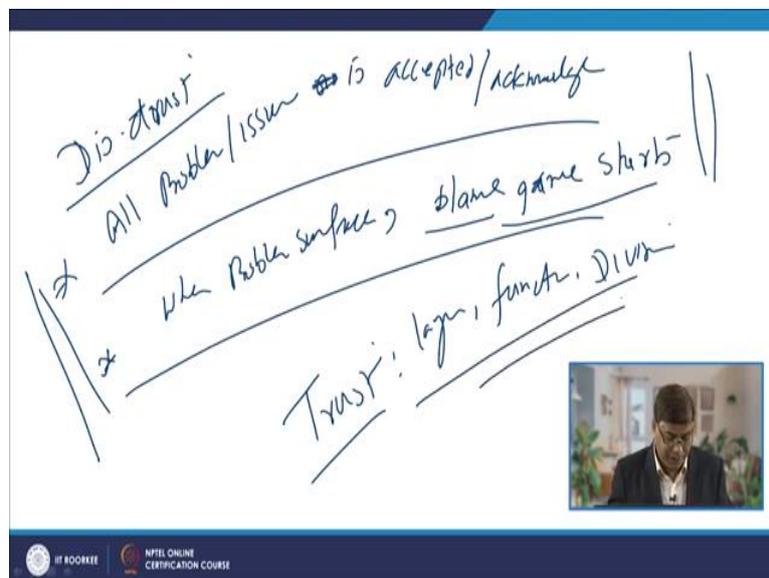
So, first thing is that the existence of the problems and issues. We know, that issues are everywhere in each of the organization there will be different kind of the issues. So, these issues may be small or big one. These may affect them, organization in a significant way or in a little way. So, as per the case. So, whenever since the problems or they are everywhere in each of the organization. So, first when there is a trust the managers associated with the different functions like functional managers and the project managers.

Functional or the project managers as per the type of the organization. When the trust exists they acknowledge the existence of the acknowledgment of the issues that these, issues are existing and then once the problem is acknowledge and it is identified that it exists, then they work together, they work on one to one basis, they seat together face to face and then they work to resolve, work together to resolve the issues which are existing.

So, this is a very positive way. First acknowledge the problem and then to look into the ways by which it can be resolved and third, good thing which happens is when there is a trust in among the different functional groups, that is the functional managers and project managers they tried to anticipate. The kind of problems which problems and issues which can creep up in future.

So, they become proactive basically. To foresee the kind problems which can occur. So, their occurrence can be avoided by being proactive. So, proactive approach helps them to anticipate the problems and the take the correct steps. So, that the occurrence of those issues and problems can be avoided.

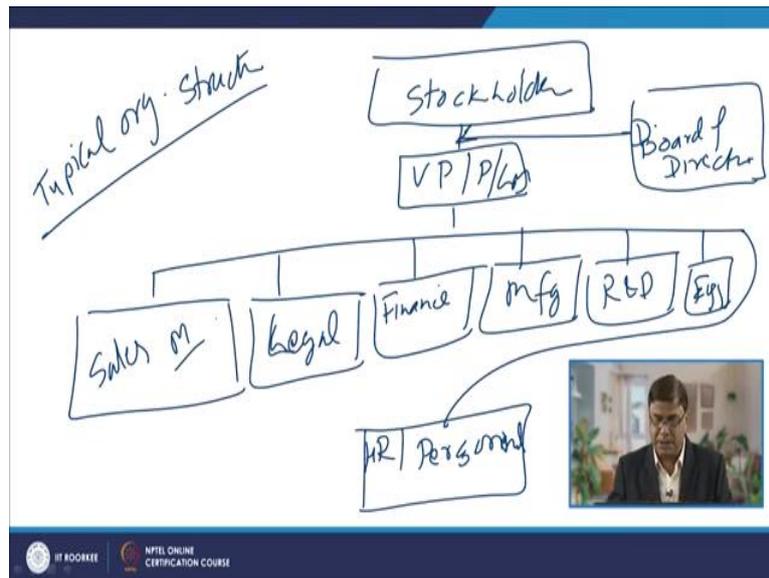
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But when there is a distrust all problems in case of the distrust, the all problems and issues the existence of the problems and issues is not accepted or acknowledged. What is the meaning of that they say that, no there is no problem everything is fine. But, the moment the problem not able a problem surfaces. So, when problem surfaces comes at the surface and its effects become upper end then the functional and project managers start blaming each other.

So, blame game starts once the problem surfaces at the, problems creeps up and comes at the surface and its effect becomes upper end, then they will start to say that the problem has been caused because of the in action by others not them self. So, this is the situation of the distrust. So, most important for having the successful organization. So, that it can really realize its goals and objectives effectively. Presence of the trust among that different layers of the organization different functional groups, and the different divisions this is very important.

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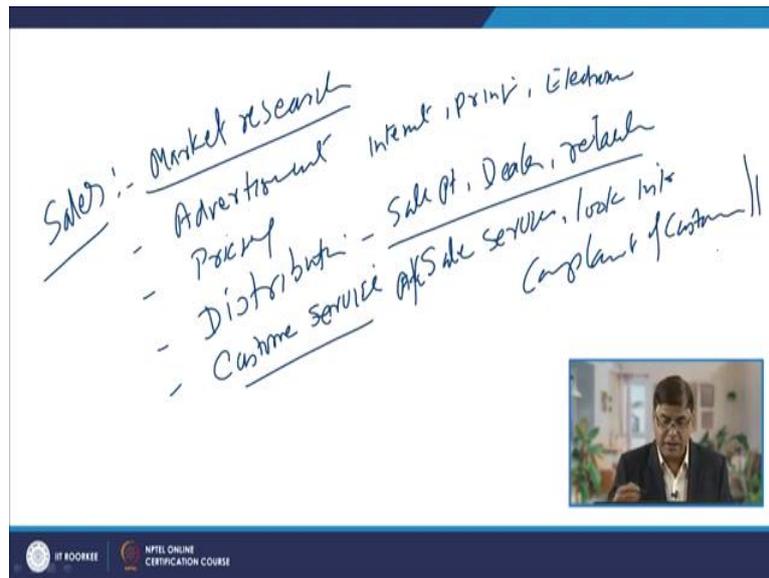


Now if we, talk of the kind of the important thing in any organization which are done, if we talk any typical organizational structure. Typical organizational structure involved in same manufacturing. So, at that top we will have the stockholders who have invested the money. Then, there will be Vice President, President and then there will be the different Directors like this here we have the Board of Directors then President, Vice President and GM., etc.

And then there are different functions like sales, then legal, then finance, then manufacturing, then R and D, engineering and then we can say the very commonly known as human resource HR or Personal. So, these are the very commonly used functions in a typical organizational structure and these, will be taken care of by that different managers and the other subordinate staff in each of the functions.

What is the typical role? Because these kind of things will be there in almost all types of the organizations industries there, may be a difference in the kind of number of layers which exist and then the way by the authorities and responsibilities are fixed.

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So, if we want to see the role which is performed by sales. So, the sales function will be doing number of activities. For example, they will be doing the market research to see what should be the strategy of the product and pricing in future, or what kind of product should be launched in future, what kind of iterations and modifications should be done in the existing products.

So, market research is one, then advertisement. Advertisement in order to increase the demand, in order to increase the sale volumes of the product or of the service advertisement is undertaken through that different means it may be internet, it may be print media, it may be electronic media like the radio, television, etc. Then we have the pricing as per the policy of the organization whether, the pricing will be competitive or the pricing will be aggressive, so that it gives the more aggressive competition to the competitors.

Then, apart from this distribution. So, that whatever product, goods and services are being provided by an organization they are made available to the different sale points, to the dealers, retailers. Basically, idea is how effectively and easily it is made available to the customers. Then, important aspect is the customer service.

Customer service this is to look after the like, after sale service and then to look into the complaints of the customers. This is very important because, after purchasing the product if the customers are not given the required service, then they will become dissatisfied and they will move on to the different kind of the product subsequently.

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Legal:

- Industrial Law
- Patent (medical, Tech Interest)

Then, there is a legal function which is primarily related with the Industrial Laws and like the filing patent, if these are if the work is being done. Mostly, in the medical field and in case of the Technology Intensive organization these kind of the breakthrough technology are developed so the patents they need to be filed to protect the business interest and professional interest.

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Finance :- Treasurer: Credit/Debt/Liability

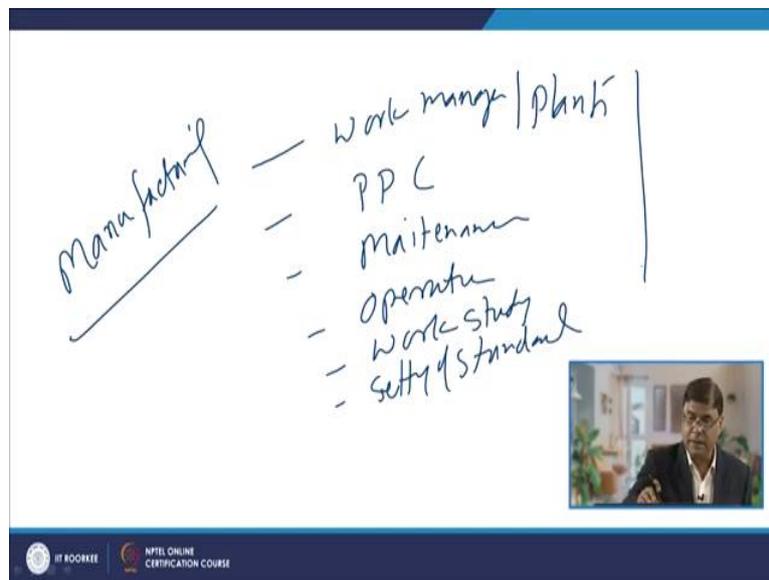
- Account
- Loans/Credit
- Taxes - GST/Income tax
- Budget control

Then, there is a finance here the one is like treasurer. Here, treasurer basically role of this is to see the kind of the credits, debts and the liabilities. Liabilities associated with the

organization and to take consider the account is the another aspect related with the finance, another activity related with the finance.

Then the kind of the loans and credits to be taken, then the taxes which are to be filed as per the law of the land like the GST or the Income tax, etc. Then, there is like the Budget control. This is important aspect is about the allocation of the capital resource to see, where which kind of the investments or diversification should be done for realizing the goal and vision of the organization.

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Then, we have the manufacturing under this like work manager or plant manager responsible for so many things being done in the organization including the maintenance, the planning, the production all those things. So, here production, planning and control, maintenance, operation, all manufacturing related activities then there is method study or the work study, setting standards, setting of the standard of the performance, all those things will be falling under the manufacturing.

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Engg. & Design is New, modification
* Development of Prototype/Testing



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Then, we have the engineering. Engineering function basically, is involved in design of the products, modification of the existing products, designing of the new products or the modification of the existing ones or incorporating the suggestions, benchmarking of the product with the competitor. So, that it can be improved in much better way. Apart from, that designing of the new products or the modification of the existing ones the development of the prototypes, their testings and suitability to launch the product. So, that it is suitable, so that it can be produced and launched for the customers.

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R&D * Works for resolving tech. issues
related product/mfg
& Development of new tech.
breakthrough team ||

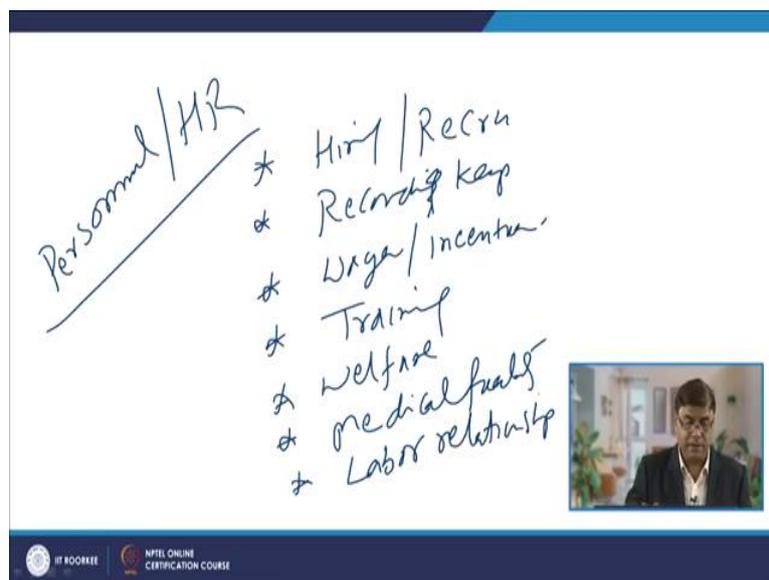
↑ Output
↓ Input
↑ Quality
↓ Cost



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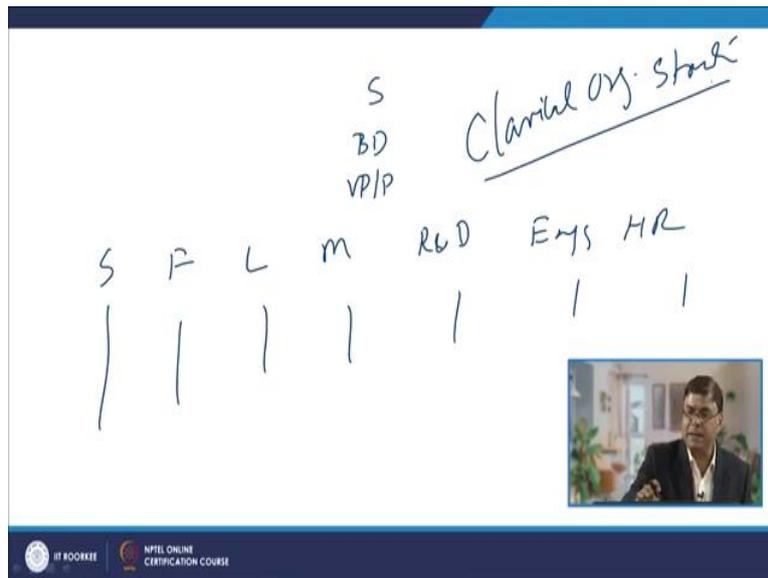
Then, there is R and D in case of the research and development it under this basically, it works in most of the organization, it works for resolving the technological issues related with the product or manufacturing. Another role, is like development of the newer technologies. Development of the newer technologies these may be in form of like breakthrough technologies breakthrough technologies. And so that basically, idea here is to produce more and more using the lesser inputs, using the breakthrough technologies. So, that quality is enhanced and the cost is reduced. This is the idea behind the R and D.

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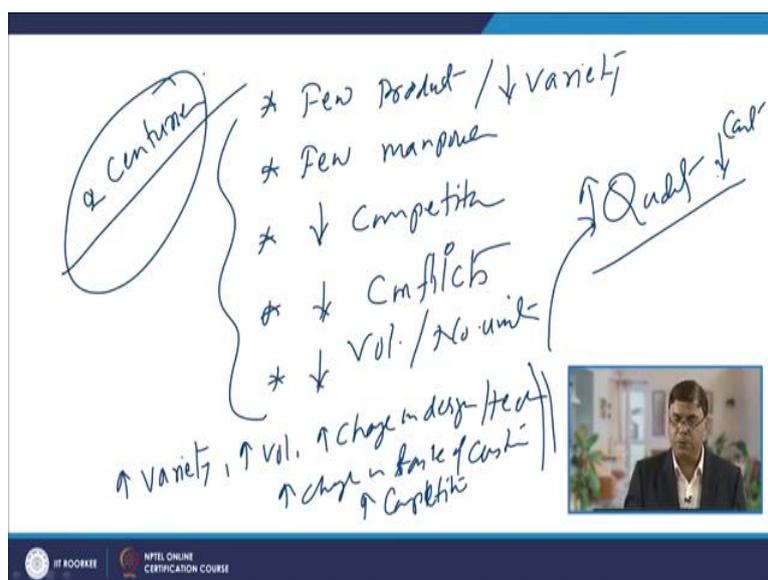
And then, we have the personal or HR human resource. So, the main activity related with this is like the hiring or recruitment of the staff this is one. Then record keeping. Record keeping of the staff then looking after the wages and incentives the salaries and the incentives. Then there is the training of the manpower which is there and then looking after the welfare of the personals, medical facilities. Recreational facilities, medical facilities, etc. Also maintaining the labor relationship. So, these are the different functions and the kind of the roles which are provided by the different functions.

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So, now if we see as we have seen that typical organizational structure has the stockholders, then board of directors, and then vice president or president, then the different functions like the sales, or the finance, legal, manufacturing, R and D, Engineering, HR and then other subordinates and number of people in each of the functions. This is, the traditional or we can say the classical organizational structure as per the size and the kind of product and services being given by the particular organization. There, may be clubbing, combining and there may be different number of layers.

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But, these kind of the structures have survived for more than two centuries. There, is a reason behind this that in early days of the industrialization each organization was manufacturing fewer products. Means, number of products being manufactured by them were limited in terms of the variety. So, less variety was there in the beginning. So, there may be just one, two or three product lines which were completely easier to maintain.

Fewer number of persons, manpower was less, so fewer, it was completely easier to maintain the few number of persons or less manpower. Very few organizations were there in each product categories so, the competition was also less. So, these things were in favor actually, the competition is less, manpower is less, product varieties are less and because of that, there were less conflicts. Less conflicts and then we can say the volume of the units which were produced because, the economy was not that strong in the early days.

So, the number of purchasers were also less and that is why the volumes, or the number of units which are manufactured were also less. Gradually the economy is improved, the demand grew and that led to the increase in volume and the number of units that were required to be manufactured. So, because of these favorable things our classical organizational structures have survived for more than two centuries, but later on increasing requirement, or demand, or regarding the variety.

Increasing volume, fast change, increasing change in the design and technologies, increasing change in the test of the customers, increasing competition, all these things have forced rather organizations to involve in such a way that they can offer the quality products to the customers at low cost, increase quality and low cost products and that to these products which are lesser in number, large in variety, these are not going to survived in the market for long.

So, to deal with these changing conditions, the organization have beaned forced to, to involve, to satisfy the need of the customers, of the current day. Now, I will summarize this presentation in this presentation basically, I have talked about the way by which co-ordination can be realized across the functions and what are the typical roles performed by the different functions in an organization and what is the typical classical organizational structures, and why they have survived for so long and now there is need to change in the classical organizational structures. Thank you for your attention.