## Organizational Design Change and Transformation Prof. Sangeeta Sahney Vinod Gupta School of Management Indian Institute of Technology, Kharagpur

## Module - 01 Lecture - 03 Introduction to Organizational Design

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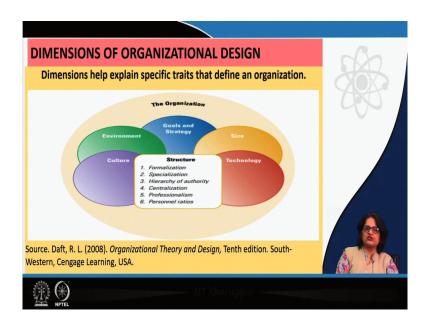
[FL]. We will now continue with our discussions on Introduction to Organizational Design. This is week 1 and lecture 3. In the previous lecture we have spoken about the meaning of an organization, why do they exist? How do organizations create value? We have spoken about organization theory, structure, culture design and change. We have also spoken about the evolution of organization theory and design.

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Today, we shall be moving beyond, and we shall be speaking about the dimensions of organizational design. Organizational configuration and how do contingency factors influence the design of organizations.

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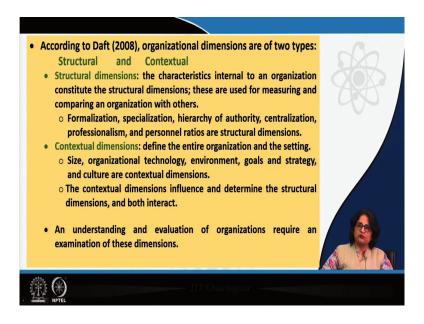
So, coming to the first which is dimensions of organizational design. Now, what are dimensions? Now dimensions explain specific traits that define an organization. According to daft, these dimensions or organizational dimensions are of two types the structural dimensions and the contextual dimensions. So, the contextual dimensions define the entire organization and the setting.

So, what you see here in the form of size, technology, goals and strategy, environment, culture. These are all contextual dimensions. Then you have the structural dimensions which are characteristics internal to an organization and they are used for measuring and comparing an organization with other organizations.

So, formalization, specialization, hierarchy of authority centralization, professionalism, personnel ratios. These are all structural dimensions. So, you have you know the

organizational dimensions which explain the specific traits that define an organization and we can categorize them into two as structural dimensions and contextual dimensions according to daft.

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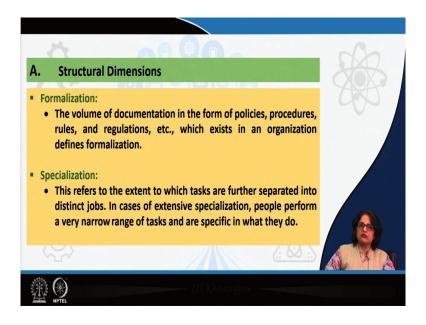


Now, the structural dimensions as I just said pertain to formalization, specialization, hierarchy of authority, centralization, professionalism and personnel ratios and these are internal to an organization, these are used for measuring and comparing an organization with others. And then you have the contextual which is which defines the entire organization and the setting and you know what are these contextual dimensions?

Size, organizational technology, environment, goals and strategy and culture. These are what constitute the contextual dimensions and they influence and determine the structural dimensions and they both interact. So, an understanding an evaluation of organizations

requires an extensive examination of these structural and contextual dimensions and that is what we will be dealing with now.

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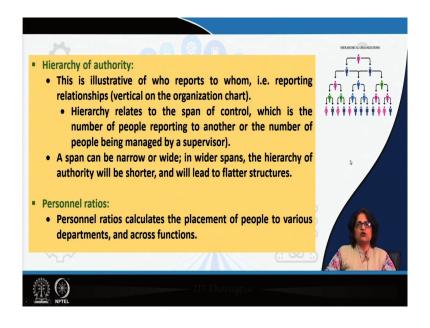
So, if we start with the structural dimensions. Now, when we talk of structural dimensions, we are actually talking we will we will talking of formalization, specialization, centralization, professionalism, hierarchy of authority and personnel ratios. We start first with formalization. So, what is formalization? The entire volume of documentation which exists in an organization in the form of policies, procedures, rules, regulations all of this actually you know is defines formalization.

So, the a volume of documentation, the amount of documentation in the form of rules, regulations, policies, procedures you know all of this which exists in an organization defines formalization. The second is specialization. Specialization refers to the extent to which tasks

are further separated into distinct jobs ok; they are separated into distinct jobs. In case of extensive specialization people perform a very narrow range of tasks and are very specific to what they do.

And so, they gradually get specialized in whatever they are doing. So, specialization refers to the extent to which tasks are further separated into distinct jobs and in case of extensive specialization people perform a very narrow range of tasks and are very specific to the what they do and they gradually gain specialization in whatever they are doing.

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The third is hierarchy of authority. Now hierarchy of authority clearly is illustrative of who reports to whom that is the reporting relationships in the organization. It can be seen vertically on the organizational chart ok. Now hierarchy relates to span of control. What is span of control? Span of control is a number of people which a manager can effectively call

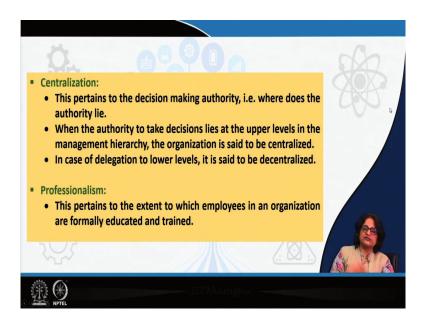
you know control and deal with and so, and the and you know it actually refers to the number of people a person or a manager can effectively handle ok.

We will be talking of the span of control in subsequent lectures as well. So, the hierarchy relates to the span of control which is the number of people reporting to another or the number of people being managed by a supervisor. The span of control as I said is the number of people a manager can effectively deal with. So, when we talk of you know the hierarchy, it relates to the span of control which is the number of people reporting to another or the number of people being managed by a supervisor.

A span can be narrow, a span can be wide, in wider spans the hierarchy of authority will be much shorter and will lead to flatter structures ok. So, the span, a narrow span will be mean that a manager or supervisor deals with fewer people ok. So, that is a narrower span a wider span is when he can deal with many people. So, a span can be narrow and wide, but when it is wide you know he is dealing with more number of people.

And so, the hierarchy will be shorter and will lead to flatter structures. The fourth dimension is personnel ratios, personnel ratios calculates the placement of people to various you know departments and across functions. So, personal ratios calculates the placement of people to various departments and across functions.

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The next is centralization; centralization pertains to decision making authority where does the decision-making authority lie. Does it lie at the top and is restricted to one of few. So that means, its highly centralized or and so, in the such cases decisions are taken at the upper level.

So, when the authority to take decisions lies at the upper levels in the management hierarchy, the organization is said to be centralized; in case it is you know it is also allowed at lower levels or the decision making is delegated to lower levels as well it is said to be a decentralized structure or decentralized organization.

And the last of these dimensions structural dimensions is professionalism, it pertains to the extent to which people in an organization are formally educated and trained. So, these are the six dimensions or we refer to them as the structural dimensions ok, you have formalization

which refers to the rules, regulations, policies, procedures, the entire volume of rules, regulations, policies, procedures which exist in the organization.

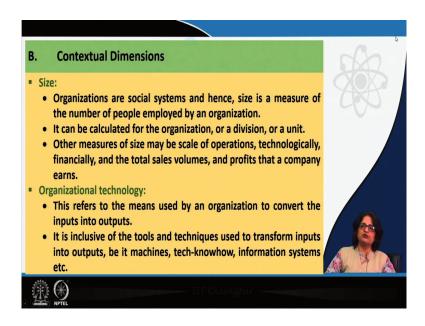
Then you have specialization which is how a different jobs are broken into different distinct tasks and roles and the when the specialization is narrow, it would mean that you know the when the specialization is extensive it would mean that people perform very a very narrow range of task and are very specific in the what they do. Then we have the hierarchy of authority which relates to the span of control and the span of control will ultimately talk of the wide and the narrow span of control ok.

You know if the number of people whom a manage person can manage is many, it leads to its it means a wide span of control which means that there will be fewer levels in the hierarchy and which will mean that they are flatter structures. On the other hand, if the number of people being managed by a person is less, it would mean that the hierarchy is taller and it will lead to you know tall structures; the hierarchy of authority will be longer and it will lead to taller structures.

And personnel ratios is the placement of people to various departments and to various functions. Then we have centralization and decentralization when the decision making authority is restricted to the top view it is centralization and when it is spread across the organization it is decentralization. So, centralization is when it is restricted to the top; decentralization is when it is spread across the organization or to different levels in the organization.

And then professionalism is degree to which or the extent to which people in the organization are formally trained and educated.

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The next we come to is contextual dimensions. Contextual dimensions as I just said relate to size, environment, technology, goals and strategy and culture. So, we start with size, organizations are social systems as we all know and so a size is a measure of the number of people who are employed by an organization.

So, it is calculated by the for the organization or it may be calculated for the division or for the unit and other measures of size of size may be scale of operations, technologically and financially. And the total sales volumes and profits that a company earns. So, all of this constitutes what we call as size. Then we have organizational technology. Technology relates to the means used by an organization to convert its inputs into outputs.

So, it is inclusive of the different tools, the different techniques which are used by an organization to transform the inputs into outputs be it the machine, be it the technological know how be it the information systems etcetera.

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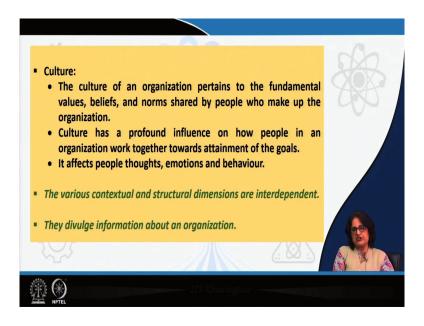


And then we have the environment which refers to the elements external to the organization which impact organizational performance. So, it could it basically includes the industry in which the organization operates the government, the legal machinery, the customers, the competitors, the suppliers, the dealers, the distributors, the bankers, the investors etcetera.

Then we have the goals and strategy. So, these define the goals and purpose for existence of an organization and these are stated as a part of the vision and mission statement. So, the why while the goals state the objective, the strategy is the action plan for reaching the goal.

So, they these the very these the goals and strategy basically define the aim and the purpose for existence of an organization. The aim and the purpose for existence of an organization and these are start stated as a part of the vision and the mission statement. So, while the goal states the objective, the strategy is the action plan for reaching to that goal.

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Then we have the culture which I just spoke of the culture pertains to the fundamental values, beliefs, norms shared by the people who actually make up the organization. So, it has a huge influence. In fact, it has a deep influence on how people in an organization work together for accomplishment of goals.

It affects peoples thoughts, it affect affects people's emotions and behaviour. So, if we talk of the contextual dimensions I repeat we have size we have technology, we have environment, we have culture and we have goals and strategy. So, the size pertains to the number of people employed in the organization.

You can calculate it in number in terms of the overall organization or the division or the unit and other measures of size include the scale of operations technologically and financially as well as the total sales volume profits that the company earns. Organizational technology pertains to the technological know how the machines, the information systems etcetera used to convert the inputs into outputs.

We talk of the environment which refers to the different forces surrounding an environment which affects its functioning and it is all the elements which are there which significantly affect organizational performance. And this could be the industry in which the company operates or the dealers, distributors, vendors, suppliers, competitors, customers, bankers, investors the legal framework etcetera. The goals and strategy define the aims and purpose of existence.

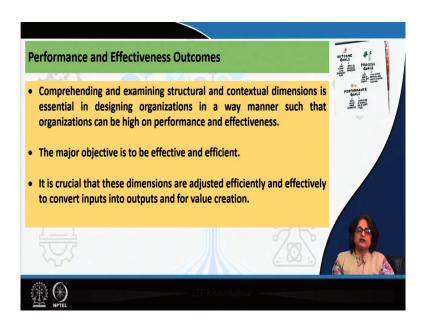
So, the goals state the objectives; the strategy lays out the action plan for achieving the objectives and then we have the culture which also has a profound influence on how people in an organization work together towards attainment of goals and all of these various contextual and structural dimensions are interdependent.

I will again go back to the slides and to the first slide where we saw this where you see that the environment, the goals and strategy the size technology and culture which are the contextual dimensions have you know affect the structural dimensions which is the formalization, specialization, hierarchy of authority, centralization, professionalism and personnel ratios.

So, the they all affect each other and you know it is very very important here to see that the structural and the contextual are interdependent and these dimensions reveal a lot of information about the nature of an organization about the characteristics of the organization ok.

So, these are the various dimensions of organizational design the structural and the contextual which affect each other and are interdependent of course, they the contextual have a huge impact on the structural and they both are interdependent. So, the organization is defined by these dimensions and such dimensions reveal a lot of information they divulge a lot of information about the organization.

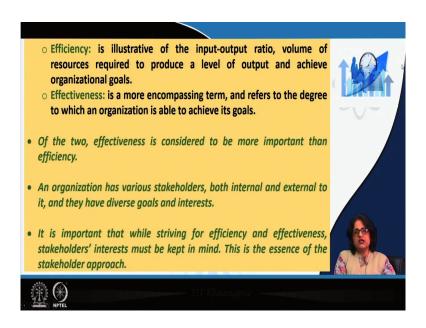
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The next we move to is the performance and effectiveness outcomes. Now comprehending and examining the dimensions is essential you know the comprehending and examining the structural and contextual dimensions essential in designing organizations in a way such that organizational effectiveness and performance can be enhanced.

So, the main objective is to be effective main objective is to be efficient and it is very crucial that these dimensions are adjusted efficiently and effectively to convert the inputs into outputs for if for value creation for enhancing the value creation ability of the organization.

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So, when we talk about efficiency; it is illustrative of the input output ratio which is the volume of resources required to produce a certain level of output and to achieve organizational goals. And when we talk about effectiveness, it is a more encompassing term and it refers to the degree to which an organization is able to achieve its goals. So, there is a difference here between efficiency and effectiveness which one need one needs to be very careful about.

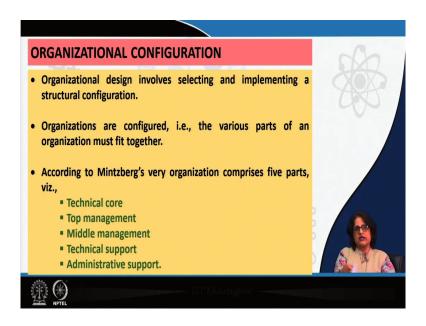
Efficiency is illustrative of the input output ratio that is the volume of resources needed to produce a certain level of output and to achieve organizational goals. And effectiveness is the

degree to which an organization is able to achieve these goals. You know the objective of the organization you know when we talk of you know is to be both efficient and effective. Of course, of the two effectiveness is considered to be more important than efficiency.

So, an organization has a various stakeholders both internal to the organization external to the organization. And they have diverse goals and interests and it is important that while companies or while organizations are striving for efficiency and effectiveness. The interests of the stakeholders are kept in mind and this is the essence of the stakeholder approach.

If you understand very well that organizations are complex entities, they are complex social systems and they have stakeholders both internal and external to the organization when organizations aim towards value creation when they aim towards creating value more efficiently and efficiently. It is very very important that stakeholder interests are kept in mind and this is the essence of the stakeholder approach.

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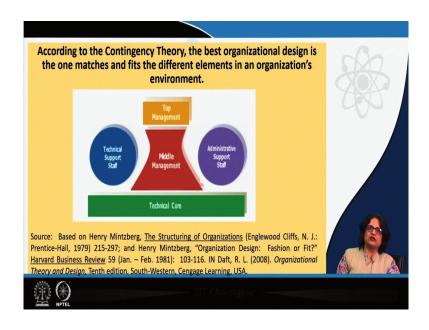
The next we come to is organizational configuration. Now organizational design involves selecting and implementing a structural configuration. We just spoke about the structural configuration, we spoke about you know we spoke about centralization, hierarchy, span of control, professionalism, personnel ratios size etcetera.

So, these are all parts you know or dimensions which are which are structural dimensions and organizational design involves selecting and implementing a structural configuration. So, organizations are configured which means that the various part of the organization various dimensions have to be fitting together. So, according to Henry Mintzberg every organization comprises five parts.

The technical core, the top management, the middle management, the technical support and the administrative support ok. I am repeating when we talk of an organization we talk about structural and contextual dimensions. We have discussed both of these. Structural pertain to the size, the technology, the personnel ratios, the hierarchy and span of control professionalism and specialization.

So, organizations are configured and the various part of the organizations must fit together, an organizational design involves selecting and implementing a structural configuration. So, according to Mintzberg every you know every organization comprises five parts which is the technical code, the top management, the middle management, the technical support and the administrative support.

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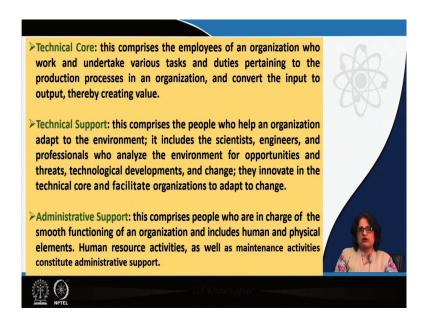


So here we see ok we have discussed that according to the contingency theory the best organizational design is the one which matches and fits the different elements in an organization environment. So, keeping the environment in mind, keeping the contextual

dimensions in mind and keeping the structural in mind we basically will now build upon this model proposed by Henry Mintzberg in 1979.

So, according to him you know an organization comprises five parts and we will now discuss how each of these is relevant.

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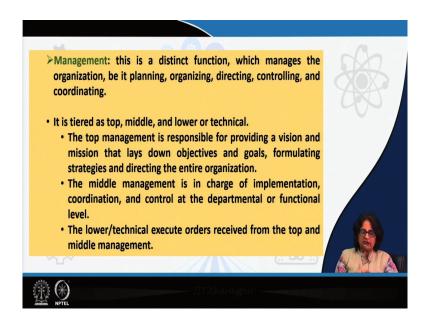
So, we have the technical core which comprises the employees of the organization who work together and undertake various tasks and duties pertaining to the production processes in the organization and they convert the input into output. So, that is the technical core which is the employees of the organization who undertake tasks and duties pertaining to production processes to convert the input into output.

The second is the technical support which is the people who help an organization adapt to the environment ok. It includes scientists, engineers, professionals who will understand the environment, analyze the environment for opportunities and threats, technological developments and change.

And they will innovate in the technical core to facilitate organizations. So, that they can adapt to change. So, the technical support comprises people like the scientists, engineers and professionals who will analyze the environment and identify the opportunities and threats, they will look for technological development, they will look at the change and they will innovate in the technical core and facilitate organizations to adapt to change.

The third is the administrative support, who are the? These are people who are in charge of the smooth functioning of the organization and will include human and in and includes the human and physical elements. So, human resource activities as well as maintenance activities they constitute the administrative support.

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The next we have management which is a distinct function which according to Mintzberg manages which is which according to Mintzberg is managing the organization be it planning, organizing, directing, controlling, coordinating. And it is tiered as a top middle lower or technical.

So, the top management is responsible for providing a vision and mission, laying down the broad objectives and goals, formulating the strategies, the middle management is in charge of implementation or execution of you know of the strategies and they are in charge of coordinating and control at the departmental and the functional levels.

And the lower or the technical you know tier actually executes the orders which have been received from the top and the middle management. So, if we go back here and see we have

the five parts which is the technical core, the top management, the middle management, the technical support.

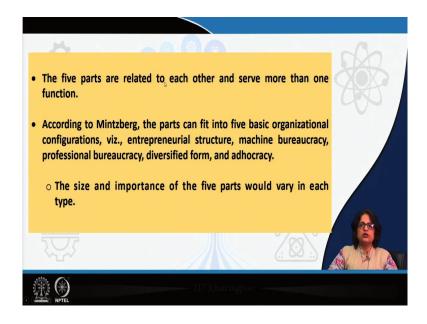
And the administrative support and the top management here is in charge of you know the top management here is in charge basically of formulating a of formulating a vision and a mission and laying down the broad objectives and goals formulating the strategies and directing the entire organization.

The middle management is in charge of execution of the strategies, implementation of that as well as coordinating and controlling at the departmental and functional levels. You have the technical core which is actually in charge of the you know the production processes in the organization to convert the input into output you have the administrative staff which is in charge of the smooth functioning of the organization and includes human resource activities as well as maintenance activities.

And you have the technical support staff which comprises scientists, engineers as well as professionals whose job is to comprehend the environment look for opportunities and threats and need for change and then they must innovate you know to innovate and facilitate organizations to move towards change.

Now, this is what Henry Fayol sorry, this is what Henry Mintzberg has to had to actually you know speak of in terms of the five parts that the organization has and we will now relate this to the you know to design to the you know to niche to decisions pertaining to organizational design so that it matches best with the organizational environment.

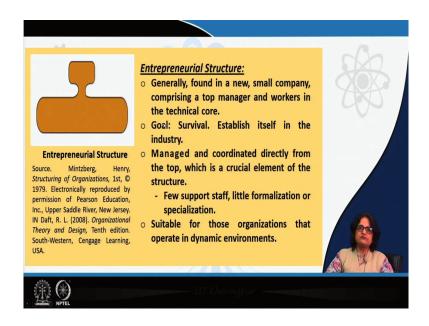
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So, the five parts relate to each other and serve more than one function and according to henry Mintzberg, the parts can fit into five basic organizational configurations, the entrepreneurial structure, the machine structure, the professional bureaucracy, the diversified form and the adhocracy. I repeat according to Mintzberg, the parts can fit into five basic organizational configurations that is the environmental structure, the machine bureaucracy, the professional bureaucracy, the diversified form and the adhocracy.

Now, the size and importance of the five parts, five parts meaning the technical core, the top management, the middle management, the technical support and the administrative support the size and importance of these five parts will vary across these five organizational configurations which means across entrepreneurial structure, machine bureaucracy, professional bureaucracy, diversified form and adhocracy.

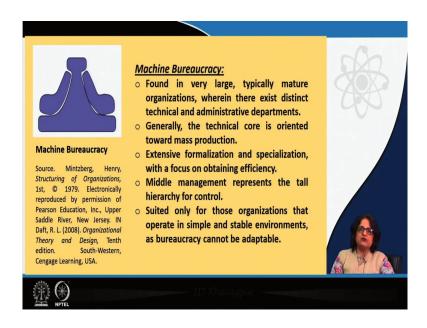
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So, let us first see the entrepreneurial structure. Now this is generally found in new companies, small companies where a top manager and the workers form the technical core. The goal is survival they want to establish themselves in the industry such in such structures you know management and coordination is directly from the top which is the crucial element of the structure; because the structure only comprises the top manager and workers in the technical core.

So, there are very few support staff, very little formalization, very little specialization and this is suitable for organizations that operate in very which operate in dynamic environments. So, this is the first one which is the entrepreneurial structure.

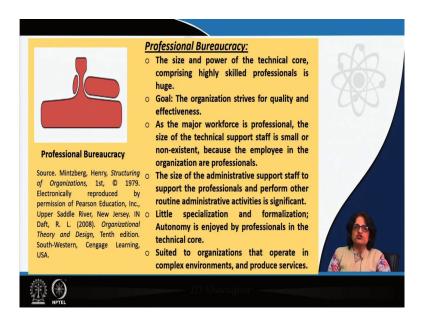
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The second is the machine bureaucracy which we which is found in very large typically mature organizations where wherein there exist distinct technical and administrative departments. Generally the technical core is oriented towards mass production there is huge amount of formalization and specialization focus is on obtaining efficiency, middle management represents the tall hierarchy you know I have it is and for control.

And it is suited for organizations that operate in state in simple environment, stable environments as bureaucracy cannot be changed or cannot be very adaptable. Bureaucracy is slightly rigid. And so, in you know it because it is not adaptable this kind of structure is only suited for organizations which operate in simple and stable environments.

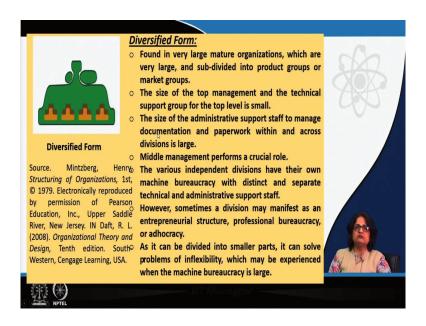
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The third is professional bureaucracy. So, the size and power of the technical core is huge, technical core here meaning people who are highly skilled professionals. The goal of the organization is to strive for quality and for effectiveness. And now as the major part of the workforce is professional, the size of the technical support staff is small sometimes even non existent; because the employees in the organization majority of them are professionals.

So, the size of the administrative support staff to support the professionals is for routine activities is also significant. There is little specialization and formalization autonomy is employed by professionals in the technical core and this is suited to organizations that operate in complex environments and produce generally produce services ok. Services meaning they are into production of services and not tangible goods.

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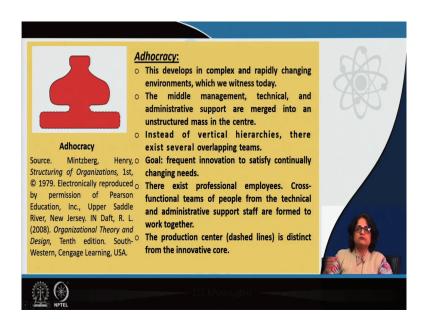


The fourth is a diversified form which is found in very large mature organizations and if you see here you know this organization is further subdivided into product groups or market groups which you can see in the form of those yellow structures. The size of the top management and the technical support group for the top level is small and the size of the administrative staff to manage lot of paperwork within and across the organization, across the divisions is large.

Middle management performs a very crucial role and the various Indian divisions have their own machine bureaucracy with distinct and very separate technical and administrative support staff. Now, sometimes this division may manifest as an entrepreneurial structure or as a professional bureaucracy or as adhocracy.

We will talk about adhocracy subsequently and as the organization can be divided into smaller parts, it can solve problems of inflexibility which may be experienced in the case of machine bureaucracy. So, in that way this is a very this is a form which is which actually tries to meet tries to you know meet the disadvantage of a machine bureaucracy.

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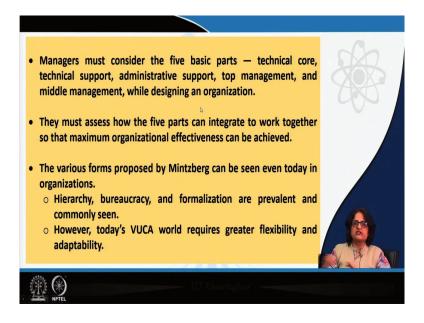
The finally, we have the adhocracy which develops in complex and rapidly changing environments which we witness today, the middle management, the technical and the administrative support staff are merged and you know are merged as an unstructured mass in the center.

Instead of vertical hierarchies there exist various teams an overlapping teams, the goal is frequent innovation to satisfy changing consumer needs and there exist professional employees, cross functional teams of people from the technical and the administrative support

staff are formed. So, that they can work together cross functionally and such kind of you know if you see here there is dashed line.

So, the production center or the dashed line is distinct from the innovation core ok. So, if you see the five parts are there in and vary in size and importance across these five configurations.

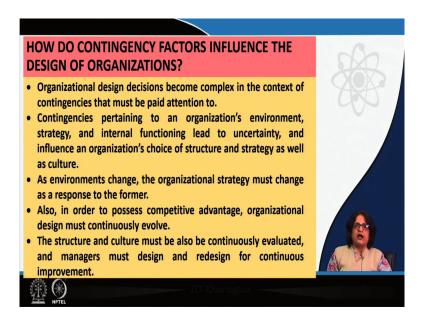
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And so, the managers must consider the five basic parts which is technical core, technical support, administrative support, top management and middle management while designing an organization and they must see how the different five parts can integrate to work together. So, that maximum organizational effectiveness can be achieved.

As I just said a little while ago that according to Mintzberg you know the five parts can fit into five basic organizational configurations which is entrepreneurial structure machine bureaucracy, professional bureaucracy, diversified form and adhocracy and the size and importance of each of the five parts would vary across these five forms. So, the various forms proposed by Mintzberg can even be seen today in organizations like you have hierarchy, bureaucracy and formalization are prevalent and commonly seen.

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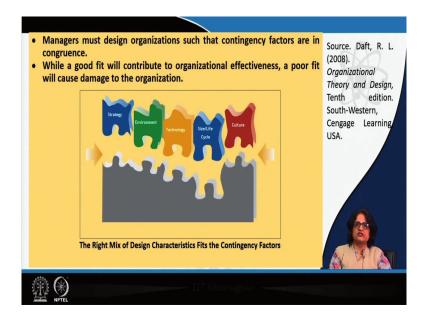
However in today's VUCA world greater flexibility and adaptability is required and that is what leads us to the contingency factors which you know how do contingency factors influence the design of organizations. So, organizations today operate in a VUCA world organizational design decisions are too complex in the context of the contingencies which organizations must deal with.

So, a contingencies pertaining to an organizations environment, strategy and internal function lead to uncertainty and will influence the choice of structure and design as well as culture. So,

as organ as environments change organizations have to think in terms of think about a change in their strategy, in their structure, in their culture and so as environments change the organization strategy must change also to possess competitive advantage the design must continuously evolve.

So, the structure and culture of the organization must be continuously evaluated and managers must design these structures for overall continuous improvement.

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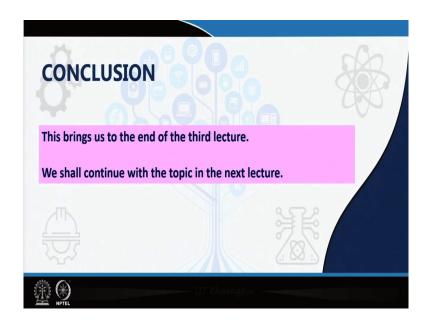
So, the design we must design organizations such that contingency factors are in congruence and while a good fit will contribute to organizational effectiveness, a poor fit will cause huge damage to the organization. So, it is very very important that strategy, environment, technologies you know size and culture which are all of these are actually the contextual dimensions.

They fit well with the structural dimensions and we can also relate all of this to Mintzbergs configurations which he has actually proposed in the form of the different you know in the form of adhocracy in the form of entrepreneurial structure, machine bureaucracy, professional bureaucracy and diversified form.

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So, with this I come to a conclusion of this lecture, these are the references and this is the end of lecture 3 of week 1 we shall continue with the topic in the next lecture.

Thank you.