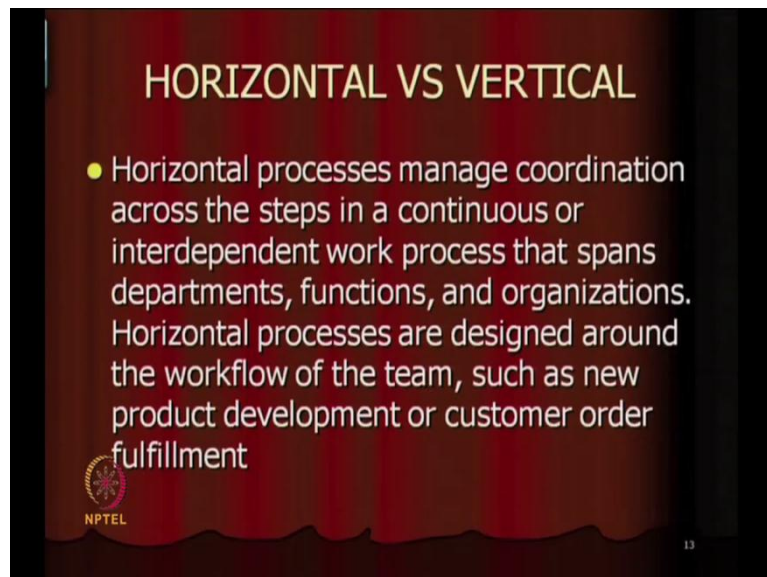


Organization of Engineering Systems and Human Resources Management
Prof. Vinayshil Gautam
Department of Management
Indian Institute of Technology, Delhi

Module - A
Basics of Organizations and Human Resources Management
Lecture - 8
Structure and Process Issues in Running Organisations (Contd.)

This part of the course is a continuing discussion on structure and process issues, in running an organization. From the preceding elaboration, you would be clear on what is the content of the word structure in an organizational content. Similarly, the content of the word processor, and in tandem came the concept of a presidia, and we tried to zero in on the use of these concepts, so far as the efficiency and effectiveness parameters of an organization or concern. We would like to continue this discussion, for recognition that, by convention, two types of structures are supposed to be just exposed to each other; one is a horizontal structure, the other is a vertical structure.

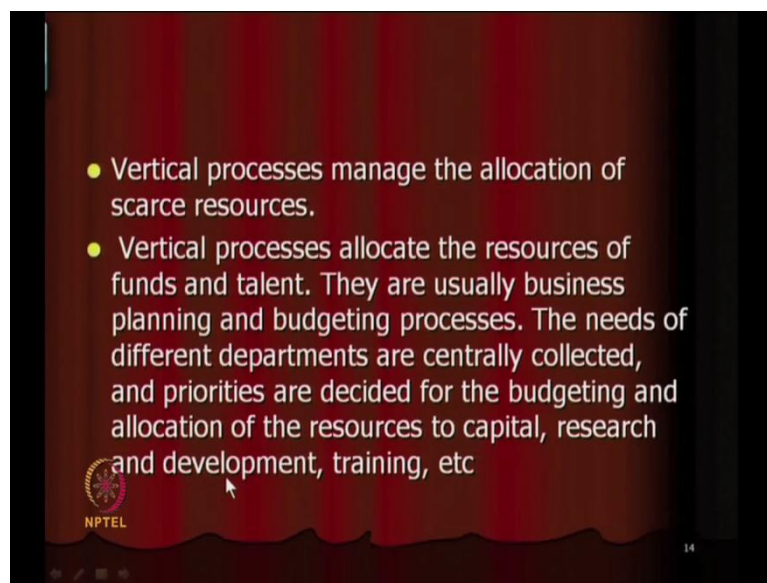
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Let me show to you a written description of the horizontal verses vertical structure, then I will go ahead to explain it to you. A horizontal process, manages coordination across steps in a continuous or interdependent work process, that spans departments, functions and organizations. Horizontal processes are designed around work flows of teams; such as new product development, or customer order fulfillment. Now as you notice here, processes are

following structures. A horizontal process processes manage coordination across the steps, in a continuous or interdependent work process, that spans departments, functions and organizations. So, processors are somewhat like a one over the other situation, running parallel to a structural process. So, when process flows take place, it ends by linking up departments, functions and organizations. Processes are flowing on top of the structures, linking up in a horizontal manner. Horizontal processes have the advantage of a work flow of the team, such as new product development, customer order fulfillment, and becomes very helpful there.

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Vertical processes manage the allocation of scarce resources. Now vertical will be top down, and the definition goes on to explain, that vertical processes allocate the resources of funds and talent. They are usually business planning and budgeting processes. The needs of different departments are centrally collected, and priorities are decided, for the budgeting and allocation of resources, to capital research and development and training. Please read this statement carefully, for me to explain its implications.

In the earlier case you noticed, that horizontal processes are running across the structures, linking product development concerts, customer order fulfillment across teams, it is this pan across departments, functions. As distinguished from that, vertical processes run top down, with the prime purpose of allocating resources. In this case, processes are running through structures, and the flow will be at different levels. In other words, processes and structures,

or structures and processes, need not necessarily run parallelly, they can run parallelly, or they can run cross section wise, depending upon the function which is at stake.

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Organizational processes required, by flat and boundary less structures, require decentralization of authority, information sharing, diffusion and distribution of competency, and redefinition and reallocation of awards. Once one gets into this area, one is entering into a little more complex formulations. If the structures are by definition, malleable or indeed boundary less, because the nature of the technology, operating in the organization is such, illustratively it is an information technology related firm, or it is a software related firm in any given sectors, say telecom sectors, or to it quite simply an organization dealing with.

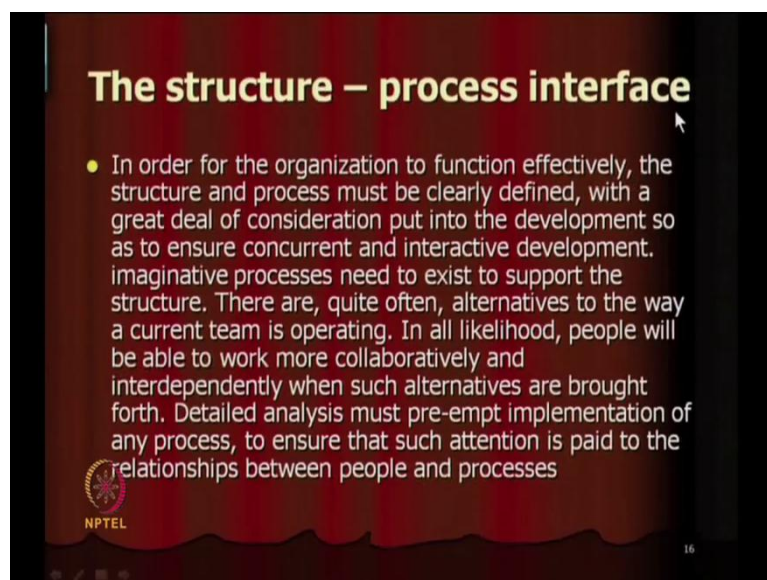
A technology which is not necessarily, sequential from a lower level of sophistication to higher level of sophistication, but a crossly organization linking up different competencies, from one end of the spectrum to another in a lateral fashion. Then what kind of processes would operate there. If you go back to the explanation of a, in the preceding presentation on structure and processes, you will recall that I did talk of hierarchies, then I have talked of structures, and even recall that I questioned you, that all structures are not necessarily hieratical.

We are now at a stage where we notice, that structures will determine decentralization or otherwise of authority. If it is a flat organization, there will be inherent decentralization of authority. If it is a vertical organization paramedical in nature, it will be proven to a

centralization of authority, and the way authority is positioned in the structure, will determine the process flows, which is why I showed you, a shot of organizations processes required by flat and by boundary less organization structures, which had four elements. And I am in the process of explaining it to you, the need to recognize, that there is decentralization of authority, just as, there is a need to appreciate, that the nature of technology in a given organization can be such, that the relationships among jobs would be flat.

Now if there is decentralization of authority and a flat structure, this has implication for information processes also. There will be higher information sharing in a flat structure, than in a centralized structure. In a flat structure also, there will be greater diffusion and distribution of competency, but then again a flat structure does not become superior, to a hieratical structure. All that it tells us, that the flat structure, is more amenable to certain type of product development, and a hieratical structure is more proven to certain other types of product development. In either case, the issue becomes that of a redefinition and reallocation of resources, reallocation of awards, and that is how an organizations becomes alive, which really brings us to the crucial question, which we are trying to handle in this presentation. After all what is the nature of interaction, between structure and processes.

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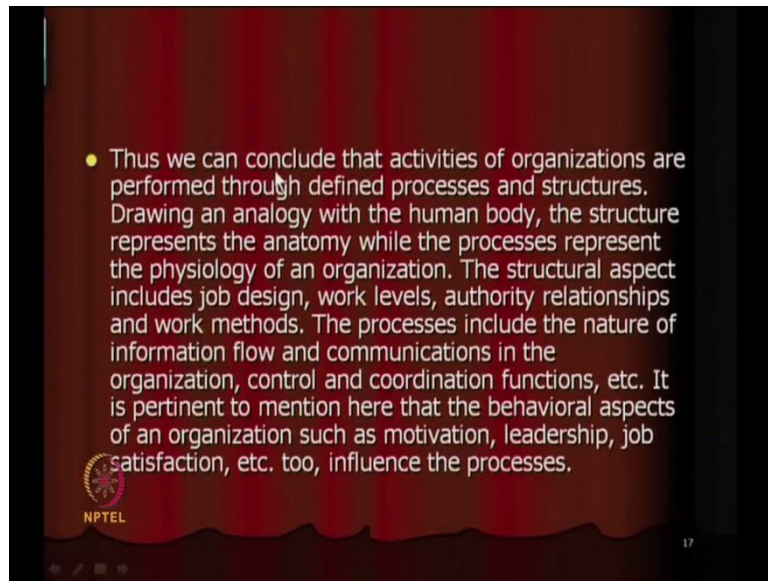
Let me show to you a explanation of the structure process interface, and I would read this out to you, then leave it there for a while. So, that you can read it and eternalize it, let me

read it to you. In order for the organization to function effectively, the structure and process must be clearly defined, with a great deal of consideration put into the development so as to ensure concurrent and interactive development. Concurrent and interactive meaning, as the structure so the process, both recognize each other's existence. Interactive development, imaginative processors need to exist to support the structure, as this is the key to the whole thought. Ensure concurrent and interactive development, imaginative processes leads to exist to support the structure, even if the structure and processors are functioning differently, there would be functioning differently to be supportive to each other, not to be obstructive to each other.

There are quite often alternatives to the way a current team is operating. Please note this statement carefully. There are quite often alternatives to the way a current team is operating, in all likelihood people will be able to work more collaboratively, and interdependently when such alternatives are brought forth. Detailed analysis must pre-empt, implementation of any process to ensure that such attention is paid, to the relationship between the people and processes. The submission here is a simple one; collaboration and interdependency are the defining principals of the operating organizations, and in a while will be talking to you about operating organizations. Detailed analysis must pre-empt; please note this, detailed analysis must pre-empt, implementation of any process.

In other words implementation of a process, is a cognitively conscious process, they are must hashing to add, if you do not do consciously, processors will start operating on their own. The difference being the process which starts functioning on its own, will take time to be mapped, and a process which has been put in place consciously, with an analysis which has proceeded it, will have a map which is already available, therefore big possible interventions which are more effective and which are more scientific. And then, just as structures are operated by people, processors are operated by people. Therefore, people are the human resources of an organization, have an interactive relationship, with both structure and processors.

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Thus, we can conclude, that activities of an organizations are performed through defined processes and structures. This is an important concept which needs to underscored. Thus we can conclude, that activities of organizations are performed through defined processes and structures. Drawing an analogy with the human body again, the structure represents the anatomy, while the processors represent the physiology of an organization. This again is a very important concept as we start winding up this part of the discussion. If you compare organizations with a human body, the structure represents the anatomy, and the processors represent to the physiology of an organization. The structural aspects include; job design, work levels, authority relationships, and work methods. This is really the content of organization theory and practice, which is a whole specialization in organization management of those of you who are still dated, immediates of the last century, organizational behavior.

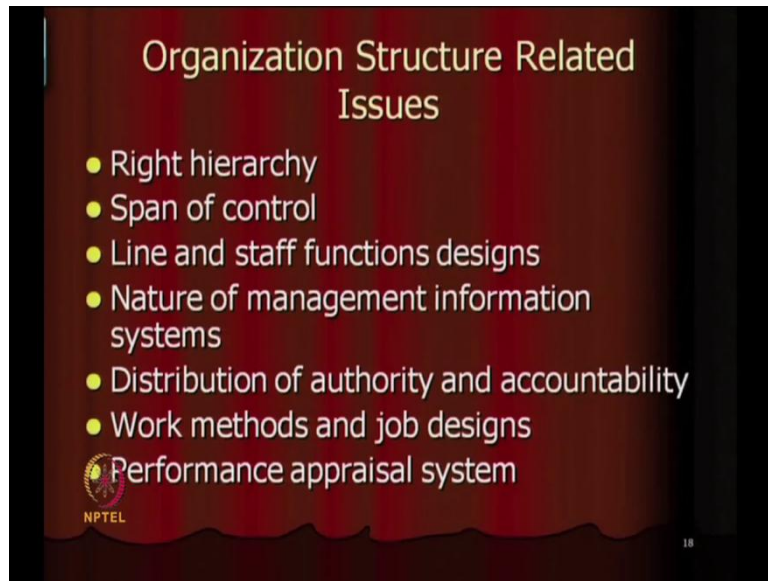
Without getting out into the kind of elevate, all I wish you to register is, structural considerations, include job design, work levels, authority relationships, and work methods, the listing is not exhaustive. In this course, we shall be devoting, at least two hours, looking at design issues of organizations. Another I wanted to share it with you, I will be presenting to you certain schematic diagrams of organizations, which will help you understand, how organizations actually could work.

The processes include the nature of information flow, communications in organizations, control and coordination functions. Now, again within the limitations of the time space of this course, just as we will not be looking at all the subcomponents of the structures, we will be not looking at. All the subcomponents and processors, which has to do with information flows, communication, control, coordination functions, but then it is important for your level of understanding the subject matter. To recognize that the word about the structure and process, or umbrella concepts, which operationally for the organization has many sub elements.

For those of you who are a little more ambitious, we would find in the bibliography a reference to a book, organization development systems. That book does elaborate upon both, the structure and the process in a little more detail. In a detail manner enough, to help you understand what an information flows to do with organization functioning, or what as communication to do with organization functioning. This presentation is made at the bottom line of information and knowledge you must pick up, if you want to appear a literate in organization, management and human resources management with reference engineering systems. But for an advance level of understanding, obviously you will have to back it after some reading of your own.

It is pertinent to mention here that the behavioral aspects of any organization, such as motivation, leadership, job satisfaction to influence the processes. Again in this course that we will be touching upon some of them. It is pertinent to mention here, that behavioral aspects of an organization; call them human resources management if you will; such as motivation will be touching upon that, leadership will be touching upon that. We will not be talking about job satisfaction etcetera, in any great detail when again the positive of time, but then this is the stage where you must be informed, that these elements do influence the processes, and do create an impact on the character of the organization. So, to some up, just part of the presentation, what is that that you need to internalize.

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There are at least seven organization related issues; they are not issues of organization structure. Please notice the difference very carefully. They are organization structure related issues, they are displayed on the screen, please take a look then I'll elaborate. So, what are the organization's structure related issues? Hierarchy; hierarchy has to be right, and what is the right hierarchy. Right hierarchy is the hierarchy, which delivers the results to fulfill the objective, for which the organizations have been created, their organizations in Saudi Arabia, which has twenty seven levels, there is nothing in the grammar of organizations which says this is wrong.

Normally public sector of organizations in India have anywhere between nine to eleven levels. So, what is the difference, if you have nine level organization, and you have a 35 to 36 years career, then other things being normal, you can expect a promotion every fourth year. So, that is when you go back home, and tell all those how you wished to impress or those who are dependent upon you, or who all those with whom you have some sentiments to share, you have been promoted.

You would not be able to do it much quicker than once in four years, but if you have twenty seven levels, you can do it almost every second year. The question therefore remains, is this news of promotion which is central to good functioning of an organization, or does hierarchy have a logic of its own which has to do with production process. Now that is not a

question which I can answer in with any great clarity in this presentation, but the fact remains.

There has to be right hierarchy, and the numbers can vary. There is a span of a control, and each manager has a span of control, where the reporting patterns get back to him. It is my case, that span of control must match span of attention. If your span of control is too wide, and your span of attention is not that wide, then please remember, your effectiveness will be to that extent low. If you remember the presentation on the screen, the third element was, line and staff function design. Now you should know the difference between line and staff functioning. Line is usually flat, staff is usually hierarchical, but irrespective, a mixture of line and staff function, makes an organization function, but not without accounting for the major of the management information system. This can be distributed, this can be centralized.

What however, and whatever that may be, it is important to recognize, that information is like the central nervous system of a human body. Information flow decides the effectiveness of response and coping capability of the limbs of an organization. It can be distributed, it can be centralized, it can be lodge at one place, it can be lodged at the point of action, and there are different models available for the structure of the information systems. Again this is not the best place to get in to it, but yes this is the sort of place where you will be need to be briefed; that the nature of the information systems effect the structure and processes of the organization. Information flows beside, which of the component of the structure are defunct, therefore can lopped off, or better still, which of them are alive, fruitful, and therefore need to be reinforced. The distribution of authority and accountability, is also a central paradigm for structures and processes to operate.

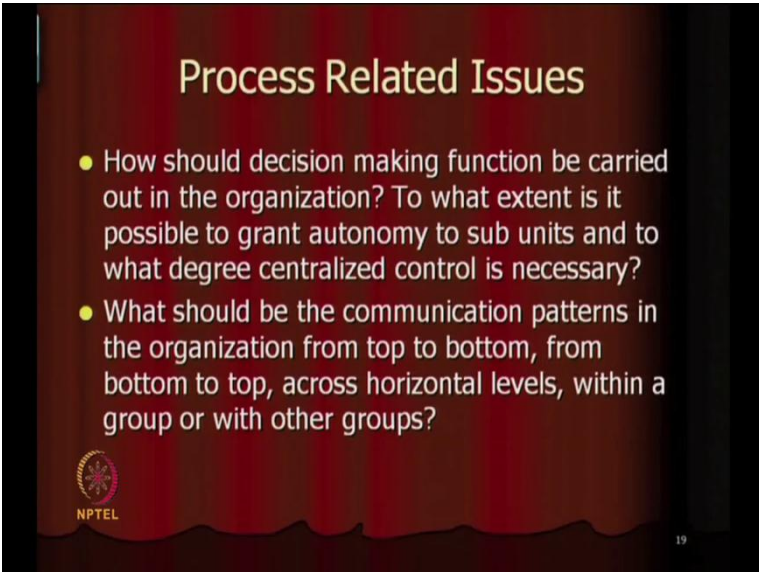
strictly speaking there can be no authority without accountability, but that those in authority do not always appear, keying to vendor accounts of performance, but these are the eye readies of human nature, and where we stand here or now, is not the place to try resolve these eye readies, the way to go about is would be to accept these eye readies, and see like a practitioner of decision theory, decision practice, problem solving. To what extent can we breathe life in to authority and accountability.

So, that the entire organizational system is more responsive, more proactive, more self renewing, and therefore more capable of taking care of itself. Work methods and job designs

are the true intervening variables, which impart trainee organization its character. As I have alerted you in lecture following this one, I will be discussing concerns of design, and while discussing concerns of designs, you will be also be referring to job designs, and if you are referring to job designs, and if you are referring to design, clearly work methods will be under review. And finally, after having done, some reflection on right hierarchies, span of control, line and staff design, line and staff function designs, nature of management information systems, distribution of authority and accountability, work method and job designs, performance appraisal.

A quick recap of the issues which was shown to you on screen a little while ago, being shown to you again, and we are here, trying to link up the preceding six issues here, and focus it on performance appraisal and design, because performance appraisal systems, are really the process of review and feedback to organizations on the state of health, there are the process of review and feedback to their organizations on relevance to the organization, and why indeed the organization should retain them at all. Indeed I am of the view, that it is a feedback loop, which really determines the way the organization is spoils to its future. It is another matter, that a perfect performance appraisal system, is a theoretical reality, but a lot of things in life, have to contain with the sub optimal, and continue dealing with it, because the ideal remains the objective to target and it helps also, to shape better once own plan of work.

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Process Related Issues

- How should decision making function be carried out in the organization? To what extent is it possible to grant autonomy to sub units and to what degree centralized control is necessary?
- What should be the communication patterns in the organization from top to bottom, from bottom to top, across horizontal levels, within a group or with other groups?

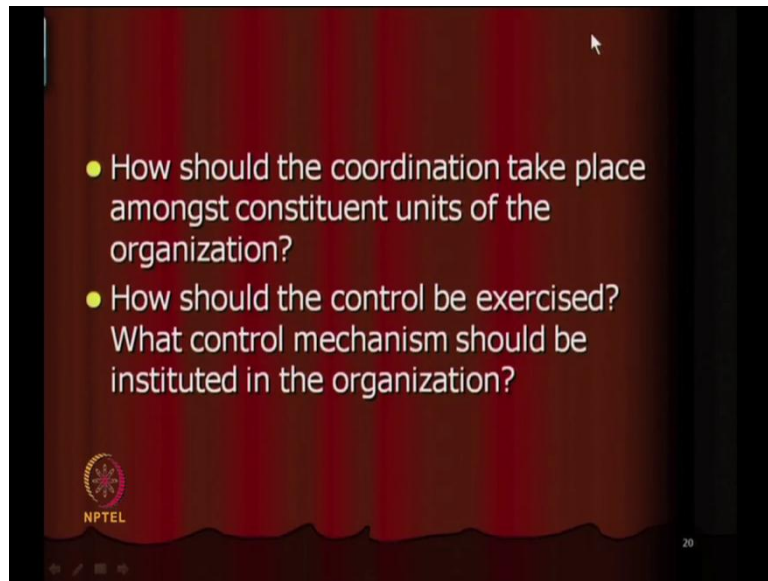
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So, what are the process related issues which we should be thinking on, and what process related issues determine the effectiveness of an organization. Let us see a quick listing, how should decision making function be carried out in an organization. There is no ideal answer to this question; that decision making function in any organization, is the most desirable, which is the most productive to its survival and growth. If there is a higher level of acceptability of that decision even better, but organizations which put acceptability above inputs to growth, usually come to grief. This is where the zero's pattern occasionally also makes sense. If you are the leader, there can be and there will be occasions, where refractions and distortions of the decision making process, take place before you will seek your intervention for correction, and that is what the leadership function is about.

Then there is a question of to what extent it is possible to grant autonomy to sub units, and to what degree centralized control is necessary. This question here, to what extent is it possible to grant autonomy to sub units, and to what degree centralized control is necessary; again one of those classical dilemmas of management, which really have no answer. What is the relationship between autonomy and centralized control. The relationship is very much like the shoreline and the sea. You do not know where one stops and other begins, and in any case it varies from high tide to low tide, from one hour to another. It has to do with speed with which waves come in, it has to do with the strengths of the tide, indeed the classical dimension is the speed with which the earth itself is rotating.

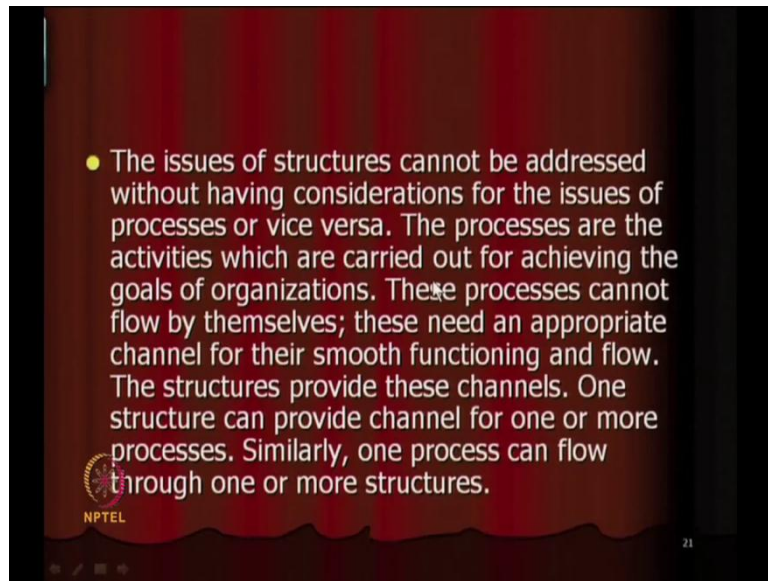
So, the relationship between the shoreline and the sea is never an autonomous variable. The relationship between autonomy and centralized control, is never an autonomous variable, but it has to be sensitively and proactively handle. Get back to the slide, what would be the communication patterns in the organization from top to bottom, or from bottom to top, across horizontal levels within a group or other groups, difficult to answer. One will have to ascertain, keeping in mind the results, which alternate modes of communication caused. One will have to keep in mind, that central purpose of communication is to create, within the organization, goal centeredness of energy and effort, and externally a proper presentation of the organizational image, so that the objectives of the organization are well met.

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The question continues, and the answers are not always present. How should the coordination take place, amongst constituent units of the organization, what should be the processes are adapted to do so, or the question which follows, how should control be exercised, what control mechanism should be instituted in the organization. The questions of coordination and control again very judgmental, but if one thing is clear, that is if anything can be clear. To lead an organization, one has to raise beyond prejudices, berry the past, look to the future, and take the decisions, which in your private movements, which in yourself and yourself, you are capable of saying; yes, that was the right decision to take, I took that decision without prejudice. I took that decision without bias, and that was the best I was capable of. If you can answer yes to that question, you have understood proactively and wisely the use of structure and processes has a leader, and we will be talking about leadership in course of time.

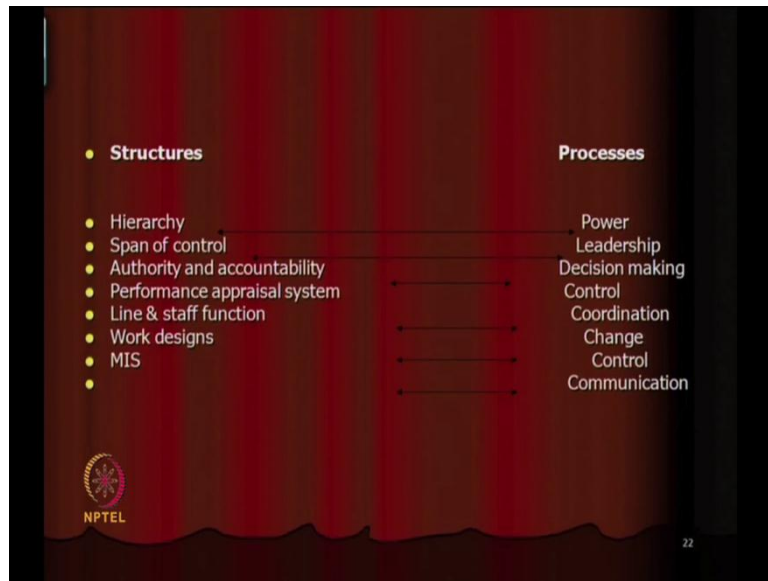
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A proposition to you for you to consider, let us read it together. The issues of structures cannot be addressed, without having considerations for the issues of processes or vice versa. So, the two are inter dependent, the processes are the activities, which are carried out for achieving the goals of the organizations. These processes cannot flow by themselves. These need an appropriate channel for their smooth functioning and flow. The structures provide these channels. One structure can provide channel for one or more processes. Similarly, one process can flow through one or more structures, that is not a very complicated sentence, it is not to play on words, the ideas are basically simple we shall walk through it once again for the sake of clarity.

The issues of structures cannot be addressed without having considerations for the issues of processes or vice versa. The processes are the activities, which are carried out for achieving the goals of organizations, these processes cannot flow by themselves, they need an appropriate channel for their smooth functioning and flow. Structures provide these channels; one structure can provide channels for one or more processes. Similarly one processes can flow through one or more structures. If we have got the ham of this statement, you are with us in understanding the structure and processes in organizations.

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Here you have a schematic diagram between structures and processes, and which activity of which segment links up with which other activity. You will notice that the hierarchy is linked with power. Span of control has structural function is linked with leadership; a process function. Authority and accountability, a structural consideration is linked up with decision making a process consideration. Performance appraisal system is linked up with the control. Line and staff function linked up with a coordination. Work designs are linked up with controls.

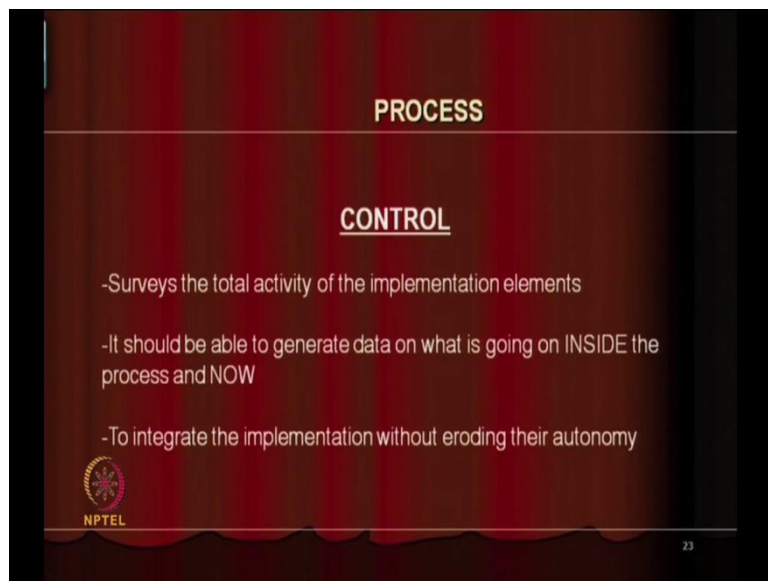
Under processes we have got communication and deliberately this is left blank, because you can link up MIS with control, you can link up work design with a change, and diagram speaks for itself. Then communication, while a process function covers just about everything in the organization. This is not a chart to swear by, but this is certainly a chart, which is for a person who is trying to get a foot hold in to management, helps to make some sense of what may appear a very large base of variables, which to a person beginning the understanding of process appear in comprehensible.

So, hierarchy and power, span of control, and leadership, authority and accountability and decision making, performance appraisal systems and control, line and staff functions and coordination and change, work design and control, MIS also deals with control, and finally communication which will support everything. With that you will notice that there is certain fuzziness around performance appraisal systems, at a certain levels it will be linked up with

decision making, and at certain level it is made up of control in terms of its linking up. Under the process you have had eight variables; under the structures you had seven variables. We have one extra process variables, because communication is listed there, but arrows you have only six, and that is because communication does not have counterpart.

The linkage of MIS with process issues is fuzzy, and so is the linkage of performance appraisal with a single process issue of fuzzy. It is difficult to identify one to one relationship for MIS, and performance under appraisal system which has structural variables with process issues. But once you recognize these two exceptions on the structure side, for which it is very difficult to find the counterpart on the process side; that is a single counterpart on the process side. You will also recognize that is for at least one variable on the process size, there is communications, is very difficult to find one single variable on the structure side, but by a large, I believe the point is made. To conclude then, we shall talk of certain process variables, control, coordination, implementation and rap up with systems.

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Control requires survey; it surveys the total activity of the implementation elements. It should be able to generate data, or what is going on inside the process, and now to integrate the implementation without eroding their autonomy.

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PROCESS

COORDINATION

- In the absence of this there will be duplication of activities, non-uniformity of operations
- The function is not to command but to damp oscillations
- They reflect decisions they do not make

IMPLEMENTATION

- These are execution activities related to Resource Conversion, Resource Support, Customer Acquisition and Vendor Development

NPTEL

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So, for as the coordination processes concerned in the absence of this, there will be duplication of activities, non-uniformity of operations, the function is not to command, but to damp oscillations. By damp oscillations is meant, reduce oscillations. They reflect decisions they do not make, and finally implementation. These are execution activities related to resource conversion; that is implementation, resource support, customer acquisition, and vendor development. You will notice, but the time to come to implementation, I am talking of operational aspects of resource support, customer acquisition through phases like resource, or a customer acquisition, and vendor development.

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The slide is titled "SYSTEM" in bold, uppercase letters at the top center. Below the title, there are two bullet points: "-Systems are sum total of interrelated and interacting structures as well as processes working towards a common goal" and "-Systems consist of Structures and Processes". In the bottom left corner, there is a circular logo with a starburst pattern and the text "NPTEL" below it. In the bottom right corner, the number "25" is displayed.

So, processes lay emphasis on coordination and implementation, and the summation is in the form of systems. Systems are the sum total of interrelated and interacting structures, as well as processes working together towards a common goal. Systems consist of structure and processes, and therefore integrated systems would require you to have a proper understanding of structure and processes, but all involve.

Please remember that where management is an art, trying to atomize structure, trying to atomize processes, may contribute to what is a certain degree of cognitive clarity, but when you are actually operating an organization, these lines of division are neither neat nor clear, nor always identifiable. In initiating the study of any matter, you begin with seeking tremendous clarity of variables, the relationships, and a scientific characterization. In real terms, life is not amenable to such clarity or such specificity, as ultimately you have to feel your way through, which is where management is simultaneously, a science or an art, and perhaps a best caption we can give to management, that it is the craft of the practitioner.