

Organizational Design Change and Transformation
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Module - 03
Lecture - 15
Organizational Structure

[FL]. Today we will be culminating our discussion on Organizational Structures which is week 3 or module 3 and this is lecture 5.

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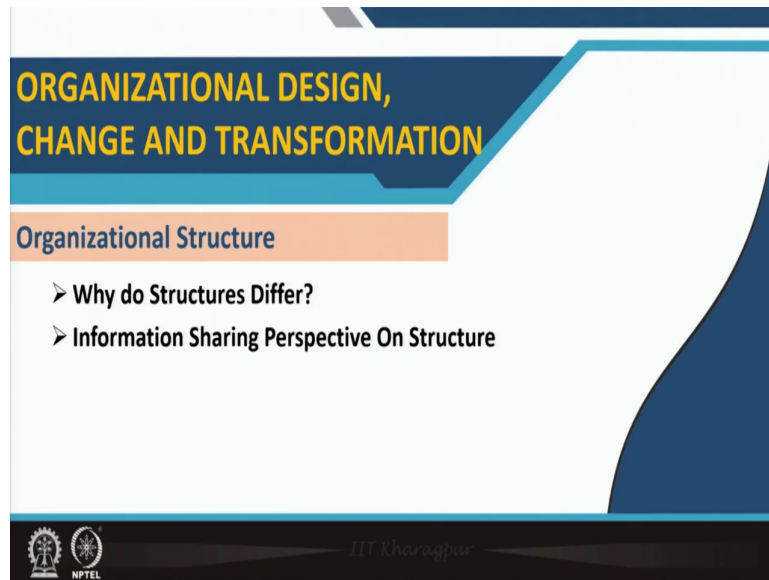


The slide features a blue header with the IIT Kharagpur logo and the text "NPTEL ONLINE CERTIFICATION COURSES". Below this, the course title "ORGANIZATIONAL DESIGN, CHANGE AND TRANSFORMATION" is displayed in bold, followed by the instructor's name "DR. SANGEETA SAHNEY, PROFESSOR, VGSOM, IIT KHARAGPUR". The slide is divided into "Module 3" and "Lecture 5". A diagram on the right shows a person standing in front of an organizational chart. The bottom section contains a list of topics: "Basic challenges of organizational design; Designing organizational structure: Authority and control; Organizational structures; Types of structures; Contemporary design structures; Why do structures differ?; Information sharing perspective on structure."

In the previous lectures we have spoken about the basic challenges of organizational design, designing organizational structure, authority and control, organizational structures, types of structures and contemporary design structures. Today we will culminate our discussion by

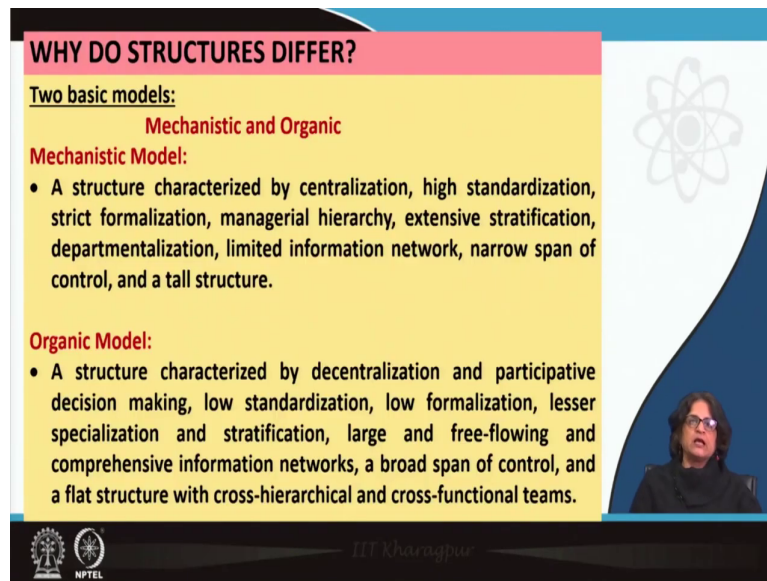
discussing two more topics which is why do structures differ and the information sharing perspective on structure.

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So, this is what we will be discussing today.

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WHY DO STRUCTURES DIFFER?

Two basic models:
Mechanistic and Organic

Mechanistic Model:

- A structure characterized by centralization, high standardization, strict formalization, managerial hierarchy, extensive stratification, departmentalization, limited information network, narrow span of control, and a tall structure.

Organic Model:

- A structure characterized by decentralization and participative decision making, low standardization, low formalization, lesser specialization and stratification, large and free-flowing and comprehensive information networks, a broad span of control, and a flat structure with cross-hierarchical and cross-functional teams.

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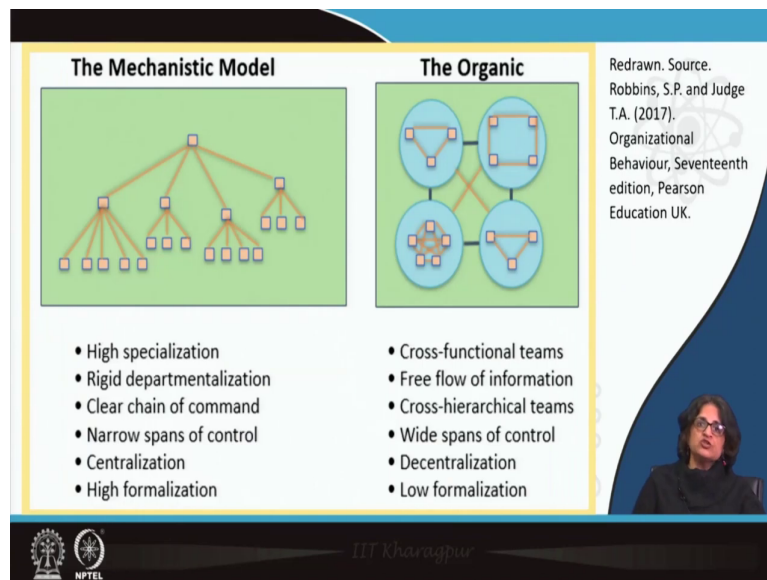
Now, why do organizations organizational structures differ? We have been discussing in week 2 as well as in week 3 about the impact that that the environment has on organizational structure and design. So, have we will continue with that and we will now try to culminate our discussion on how ny structures across organizations change and even within the same organization how do they change over time.

We have discussed the two basic models which is the mechanistic and the organic, where the mechanistic structure is characterized by centralization, high standardization, strict formalization, management hierarchy, extensive stratification, departmentalization, limited information network, narrow span of control, and a tall structure.

And the organic model has been characterized by decentralization and participative decision making, low standardization low formalization, lesser specialization and stratification, large

and free-flowing and comprehensive information networks, broad span of control and a flat structure with cross hierarchical and cross functional teams.

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So, this is what we see as the two models where we see the mechanistic model with high specialization, rigid departmentalization, clear chain of command, narrow span of control, centralization and high formalization. And at the other hand we have the organic structure with cross functional teams, free flow of information, cross hierarchical teams broad span of control, decentralization and low formalization.

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Why do some organizations structure themselves on the mechanistic model, and why do others follow the organic model?

Determinants of an organization's structure:

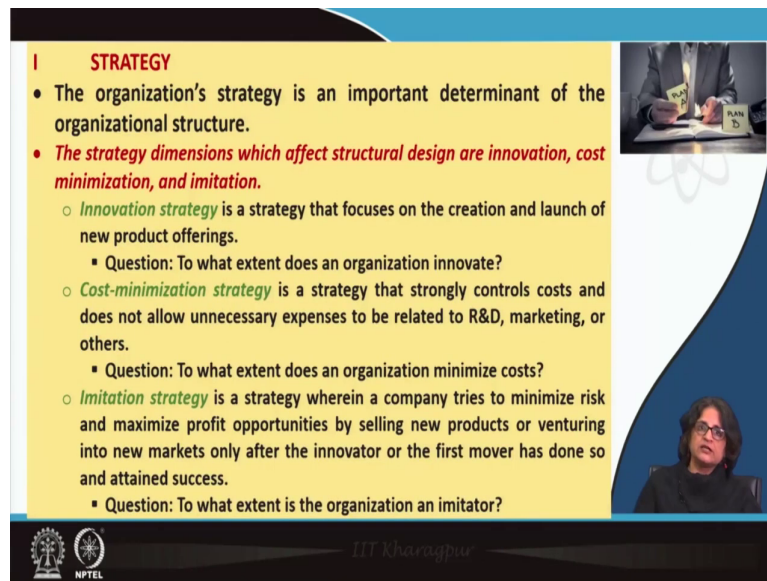
- Strategy
- Size
- Technology
- Environment
- Institutions

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Now, why do some organizations structure themselves on the mechanistic model and why do some others follow the organic model? Now, to this leads us to the determinants of an organization structure which is a strategy, size, technology, environment and institutions. So, far we have been emphasizing upon the role of the environment.

Today we will move beyond and discuss how strategy, size, technology and institutions also have a role to play in you know have a role to play when it comes to decisions pertaining to organizational structure and design.

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I STRATEGY

- The organization's strategy is an important determinant of the organizational structure.
- *The strategy dimensions which affect structural design are innovation, cost minimization, and imitation.*
 - *Innovation strategy* is a strategy that focuses on the creation and launch of new product offerings.
 - Question: To what extent does an organization innovate?
 - *Cost-minimization strategy* is a strategy that strongly controls costs and does not allow unnecessary expenses to be related to R&D, marketing, or others.
 - Question: To what extent does an organization minimize costs?
 - *Imitation strategy* is a strategy wherein a company tries to minimize risk and maximize profit opportunities by selling new products or venturing into new markets only after the innovator or the first mover has done so and attained success.
 - Question: To what extent is the organization an imitator?

The slide includes a video inset in the top right corner showing a person in a suit looking at a document labeled 'PLAN D'. The bottom of the slide features the IIT Kharagpur and NPTEL logos.

So, let us first start with strategy. Now the organization strategy is an important determinant of the structure. The strategy dimensions which affect structural design are innovation, cost minimization and imitation. So, if we look at the first dimension which is innovation strategy. As a strategy it focuses on the creation and launch of new product offerings.

So, the question it addresses is, to what extent does an organization innovate? The second dimension you know you know which set second strategic dimension which affects structural design is cost minimization strategy. As a strategy its cost minimization strategy strongly controls costs and does not allow unnecessary expenses to be related to R and D marketing or others. 3.40


So, the question is with respect to what extent does an organization minimize cost? The third is imitation strategy. It is a strategy wherein the company tries to minimize risk and maximize

profit by selling new products or venturing into new markets only after the innovator or the first mover or some of the organization has done so and attained success.

So, the question that pertains to this as a strategy is to what extent is the organization and imitator? So, we have these three dimensions ok, which affect structural design. One is the innovation strategy which pertains to the question to what extent that the organization innovate. Second is the cost minimization strategy which pertains to the question to what extent does an organization minimize cost?

And the third is imitation strategy which pertains to the question to what extent is the organization and imitator? Now, these are three you know strategy dimensions which affect structural design.

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Porter's Generic Strategies:

- 1. Low-cost business-level strategy:**
 - Exerts stringent controls over existing and current activities and weaker controls over new ventures.
- 2. Differentiation business-level strategy:**
 - Creates expensive, high-quality products aimed at specific market segments.
- 3. Focus strategy:**
 - Entails concentrating all of the organization's resources on a single market segment.

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Now we also talk of Porter's generic strategies, ok. Porter spoke of the low cost business level strategy wherein he emphasized upon exerting stringent controls over existing and current activities and weaker controls over new ventures. The second is the differentiation business level strategy.


Which emphasizes upon creating expensive high quality products aimed at specific market segments. And the third is a focus strategy which entails concentrating all the organizational resources on a single market segment.

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Strategy	Structural Option
Innovation	Organic: A loose structure; low specialization, low formalization, decentralized
Cost minimization	Mechanistic: Tight control; extensive work specialization, high formalization, high centralization
Imitation	Mechanistic and organic: Mix of loose with tight properties; tight controls over current activities and looser controls for new undertakings

The Strategy-Structure Relationship

Redrawn. Source: Robbins, S.P. and Judge T.A. (2017). Organizational Behaviour, Seventeenth edition, Pearson Education UK.



Now, if we relate these strategies to the structural option. We have innovation ok, as one of the strategic dimensions. If innovation is one of the strategies and with which the organization would like to adopt, if innovation is adopted as a strategic dimension then the

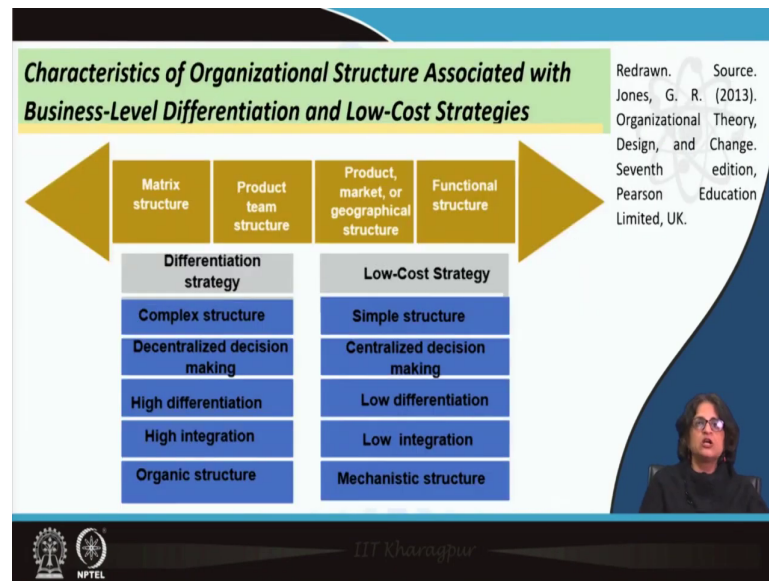
structural option which is more suitable would be an organic structure, a loose structure, low specialization, low formalization, high amount of decentralization.

On the other hand if cost minimization is a strategic dimension in that case a mechanistic structure is more suitable because it believes in tight control, extensive work specialization, high formalization and high centralization. And if imitation is a strategic dimension then it has to be a mix of both mechanistic and organic.

So, it is a mix of loose with tight properties. Tight controls over current activities and loose controls over new undertakings or new ventures. So, this is what you know this is how we can relate the strategy to the structure and this particular table here clearly showcases the strategy structure relationship.

So, when a strategic dimension is innovation go for organic, when it is cost maximization sorry, cost minimization when it is cost minimization go for mechanic and that it is imitation go for both.

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So, here what we see is that how we can relate organizational structures with business level differentiation and low cost strategy. So, we can see here that if the organization decides to you know adopt a differentiation strategy then a matrix structure and a product team structure is more suited. And on the other hand if it wants to adopt a low cost strategy, a functional structure and a product market or geographical structure is a more suitable one.

Now you know a differentiation structure sorry, a differentiation strategy would entail decentralized decision making, high differentiation high integration complex structures. And so what we are actually speaking of is an organic structure. On the other hand a low cost strategy which would mean centralized decision making, low differentiation, low integration, mechanistic structure and so what we are talking of is a simple structure.

So, you can see here that you know when organization decides to adopt a low cost strategy, a simple structure will do centralized decision making will be can be suitable low differentiation, low integration will be needed and a mechanistic structure can be adopted. But when it decides to go for a differentiation strategy it required decentralized decision making, it would require high levels of differentiation and integration a complex structure and.

So, what it needs to adopt is more of an organic structure. Now differentiation strategy and organic structure also relates to product team structure and matrix structure. And similarly you know low cost strategy relates to a mechanistic structure and again relates to product market or geographic structure or a functional structure.

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II SIZE

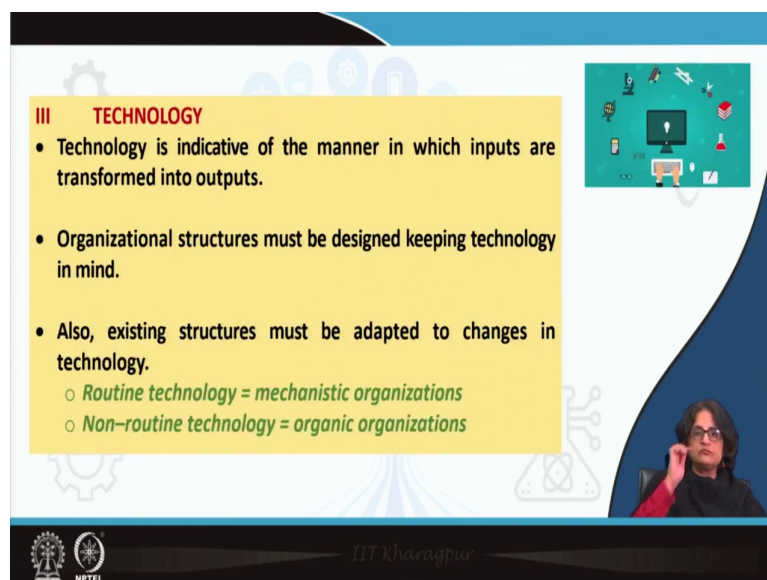
- The size of the organization affects the structure.
 - Organizations with a larger number of employees will have more specialization and more departments.
 - Also, the number of vertical levels will be high, and there will be more rules and regulations.
- *However, as the organization begins to expand more and more, size becomes less important.*

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The second determinant to organizational structure is size. The size of the organization affects the structure. Organizations with a large number of employees will have more specialization, more departments, also the number of vertical levels will be high and there will be more formalization more rules more regulations.

However, as the organization begins to expand more and more size becomes less important as a determinant for structure.

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III TECHNOLOGY

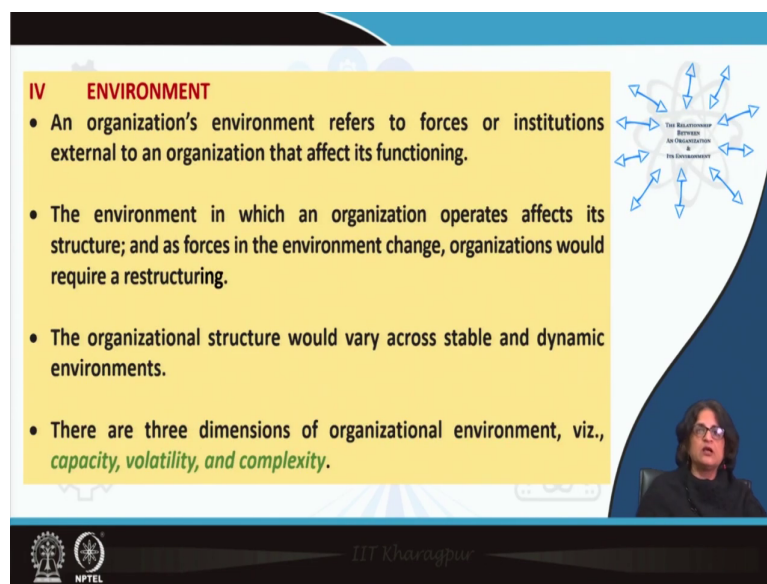
- Technology is indicative of the manner in which inputs are transformed into outputs.
- Organizational structures must be designed keeping technology in mind.
- Also, existing structures must be adapted to changes in technology.
 - Routine technology = mechanistic organizations
 - Non-routine technology = organic organizations

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The third determinant of structure is of technology. So, technology is indicative of the manner in which inputs are transformed into outputs, organizational structures must be designed keeping technology in mind. Also existing structures may need to be changed because of changes in technology. Particularly relevant in today's day and age.

In case in cases where organizations adopt routine technologies, a mechanistic structure is feasible. But if organizations use and adopt if the organizations adopt and use non routine technologies or emerging technologies or advances in technologies then the organization structure will be more appropriate and more feasible.

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IV ENVIRONMENT

- An organization's environment refers to forces or institutions external to an organization that affect its functioning.
- The environment in which an organization operates affects its structure; and as forces in the environment change, organizations would require a restructuring.
- The organizational structure would vary across stable and dynamic environments.
- There are three dimensions of organizational environment, viz., *capacity, volatility, and complexity.*

The Relationship Between An Organization & Its Environment

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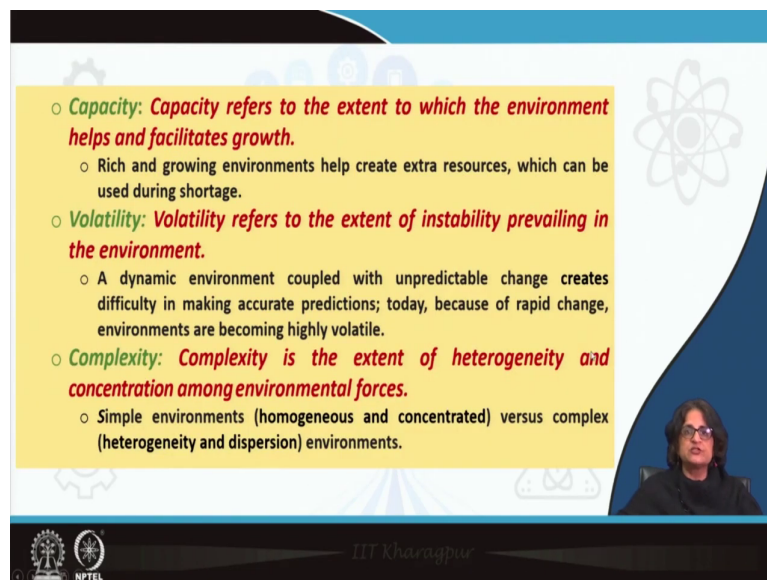
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The fourth is environment. So, an organizations environment refers to the various forces in external to the organization that affects its affects its functioning. We have been talking about the environment in the past few weeks. So, the environment in which an organization operates affects its structure and as forces in the environment change organizations may also require restructuring.

So, these three dimensions of organizational environment capacity, volatility and complexity. And we see that organizational structure would vary across stable and dynamic environments.

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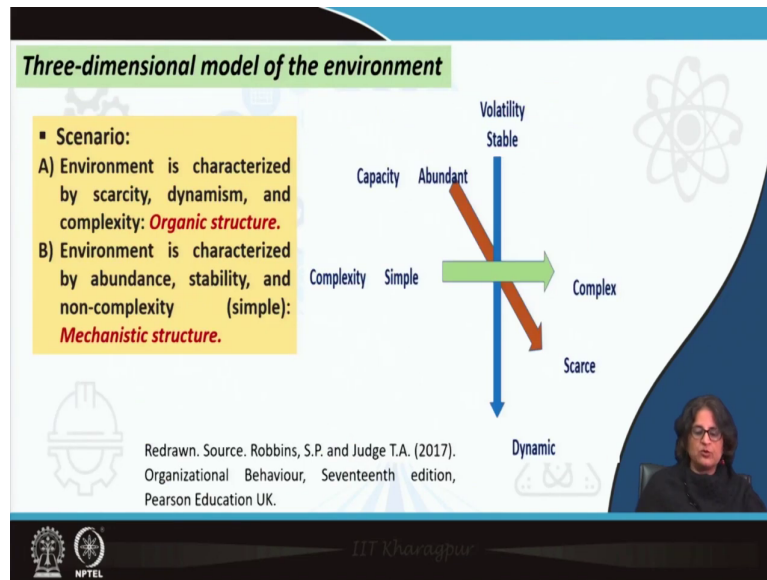
- **Capacity:** Capacity refers to the extent to which the environment helps and facilitates growth.
 - Rich and growing environments help create extra resources, which can be used during shortage.
- **Volatility:** Volatility refers to the extent of instability prevailing in the environment.
 - A dynamic environment coupled with unpredictable change creates difficulty in making accurate predictions; today, because of rapid change, environments are becoming highly volatile.
- **Complexity:** Complexity is the extent of heterogeneity and concentration among environmental forces.
 - Simple environments (homogeneous and concentrated) versus complex (heterogeneity and dispersion) environments.

So, a capacity refers to the extent to which the environment helps and facilitates growth. You have rich and growing environments which help create extra resources which can be used by the organization during times of shortage. Volatility refers to the extent of instability in the prevailing in the environment.

So, a dynamic environment together with unpredictable change creates difficulty in making predictions. And today because of rapid change environments are becoming highly volatile. A complexity is the extent of heterogeneity and concentration amongst environmental forces.

So, in simple environments you know the forces are homogeneous and concentrated. But in complex environments they are heterogeneous and dispersed.

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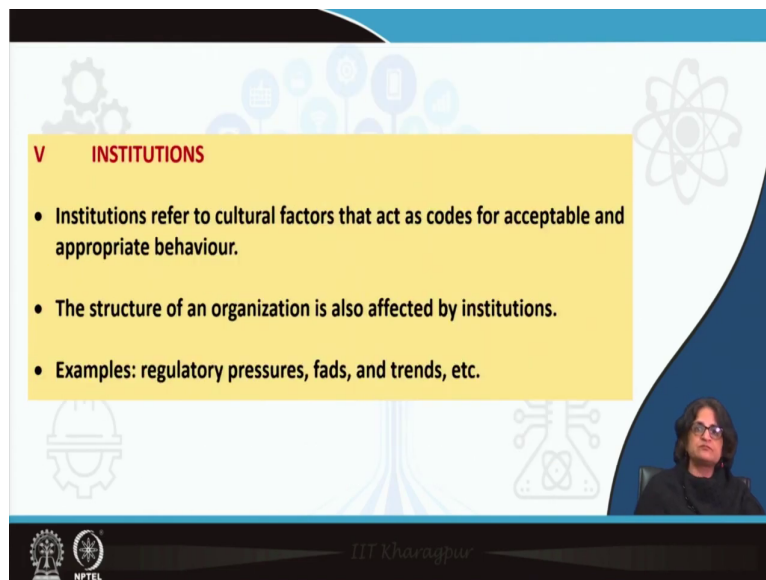
And, so we have a scenario here where the environment is characterized by scarcity, dynamism and complexity. In such cases the suitable structure is one which is organic. And then you have environment which is characterized by abundance, stability and non complexity in such cases the suitable structure will be mechanistic.

So, what we see are two scenarios here that when there is when the environment is characterized with by scarcity or dynamism and dynamism and complexity the structure which is suitable is an organic structure. And when the environment is characterized by abundance, stability and non-complexity which means simple environments the structure which is suitable is a mechanistic structure.

So, you can clearly see here that we have you know capacity, complexity and volatility. As these three components and you have the capacity which can be which can on a continuum be abundant or scarce. Complexity which on a continuum can be simple to complex and volatility which on a continuum can range from stability to dynamism.

And when the environment is characterized by scarcity, by complexity and by scarcity the preferred structure is an organic one. When it is characterized by abundance stability and non complexity the preferred structure is a mechanistic one.

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V INSTITUTIONS

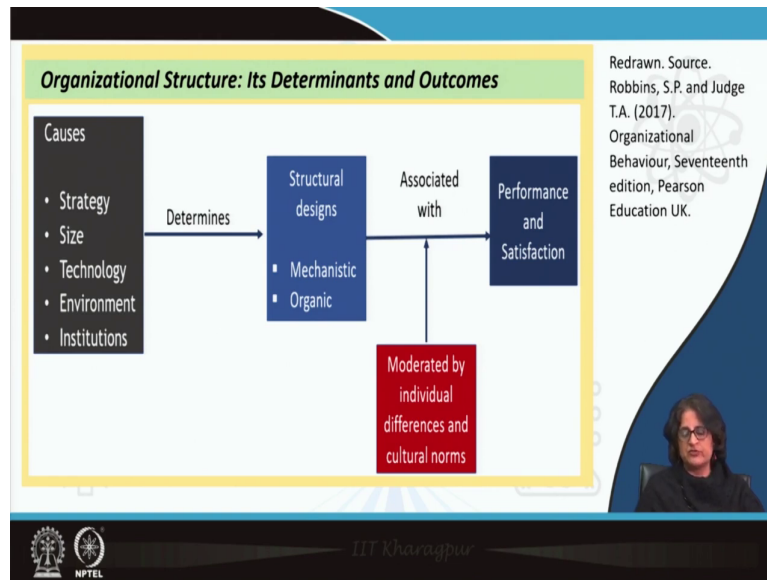
- Institutions refer to cultural factors that act as codes for acceptable and appropriate behaviour.
- The structure of an organization is also affected by institutions.
- Examples: regulatory pressures, fads, and trends, etc.

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The fifth determinant of organizational structured institutions. Institutions refer to cultural factors which acts as codes for acceptable and appropriate behavior. The structure of an organization is also affected by the codes of conduct by the codes of acceptable behaviour it

is affected by institutions. So, examples can be regulatory, pressures, fashion, fads, trends, etcetera.

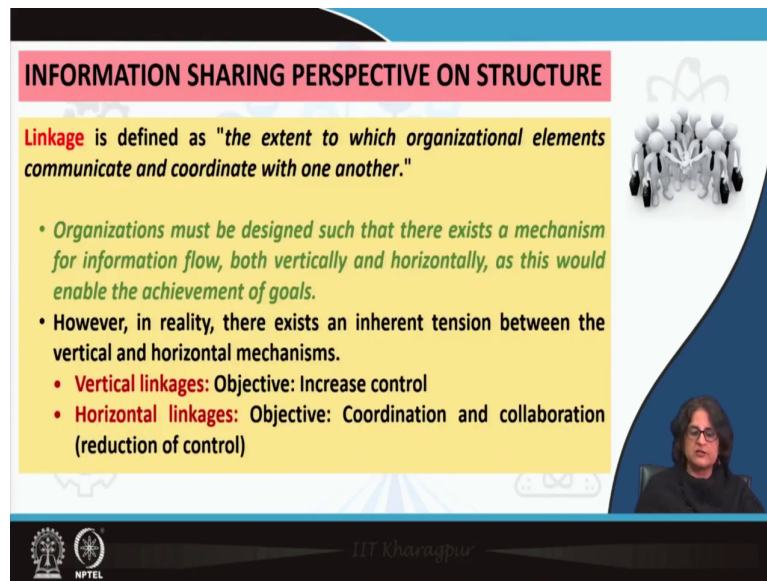
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They also affect the structure of the organization. So, the strategy the size, the technology, the environment and the institution they have an impact on structural design whether an organization would go for a mechanistic design or an organic one. And they the structural design affects performance and satisfaction. Of course, it is moderated by individual differences and by cultural norms.

So, the strategy size technology environment institution determines structural design which affects performance and satisfaction. Of course, performance and satisfaction is moderated by individual differences and by cultural norms.

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INFORMATION SHARING PERSPECTIVE ON STRUCTURE

Linkage is defined as "the extent to which organizational elements communicate and coordinate with one another."

- Organizations must be designed such that there exists a mechanism for information flow, both vertically and horizontally, as this would enable the achievement of goals.
- However, in reality, there exists an inherent tension between the vertical and horizontal mechanisms.
 - **Vertical linkages:** Objective: Increase control
 - **Horizontal linkages:** Objective: Coordination and collaboration (reduction of control)

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Lastly we come to information sharing perspective on structure. We will talk of linkages here horizontal linkage and vertical linkage. Linkage is defined as the extent to which an organizational elements communicate and coordinate with each other. So, the extent to which organizational elements communicate and coordinate with each other defined the linkage and this is how daft explains what linkage is.

So, organizations must be designed such that there exists mechanisms for information flow both horizontal information flow as well as vertical information flow. As this would mean achievement effective achievement of objectives. So, organizations must be designed such that there is a information flow both horizontally and vertically in the organization.

You know and this would mean achievement of objectives, accomplishment of objectives. But in reality there exists an inherent tension between the horizontal and vertical mechanisms.

Why? Vertical linkages the objective is control, horizontal linkages the objective is coordination and collaboration. Remember our discussion on horizontal and vertical differentiation where we said that in vertical differentiation the objective is control and hierarchy.

But in horizontal it is more to do with coordination and collaboration. So, the same horizontal and you know the same philosophy behind horizontal and vertical differentiation. Also, comes in here where we see that in horizontal linkages the objective is coordination and collaboration, but in vertical linkages it is more about hierarchy and control.

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Choice between:
Traditional organizational orientation versus Contemporary learning organization

- **Traditional organizational orientation:**
 - Goal: Efficiency; importance to vertical communication and control.
- **Contemporary learning organization:**
 - Goal: Learning and adaptation; importance to horizontal communication and coordination.

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So, the choice today between is organizations today is between traditional organizational orientation versus a contemporary learning organization, ok. The traditional organizational

orientation the goal was efficiency and this was important with respect to vertical communication and control, ok.

And on the other hand contemporary learning organization the goal is learning and adaptation where we give a lot of importance to horizontal communication and coordination, ok. So, the ultimate choice that organizations must make between the vertical linkage and the horizontal linkage also relates to a choice between traditional organizational orientation versus contemporary learning organization.

In the traditional organizational orientation the goal is efficiency. And a lot of importance is given to vertical communication and control. But in a contemporary learning organization the goal is learning and adaptation. Adaptation to the environment and a lot of importance here is given to horizontal communication and coordination.

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The Relationship of Organization Design to Efficiency vs. Learning Outcomes

Horizontal Organization Designed for Learning

Horizontal structure is dominant

- Shared tasks, empowerment
- Relaxed hierarchy, few rules
- Horizontal, face-to-face communication
- Many teams and task forces
- Decentralized decision making

Vertical Organization Designed for Efficiency

Vertical structure is dominant

- Specialized tasks
- Strict hierarchy, many rules
- Vertical communication and reporting systems
- Few teams, task forces or integrators
- Centralized decision making

Dominant Structural Approach

Redrawn. Source: Daft, R. L. (2008). Organizational Theory and Design, Tenth edition. South-Western, Cengage Learning, USA.

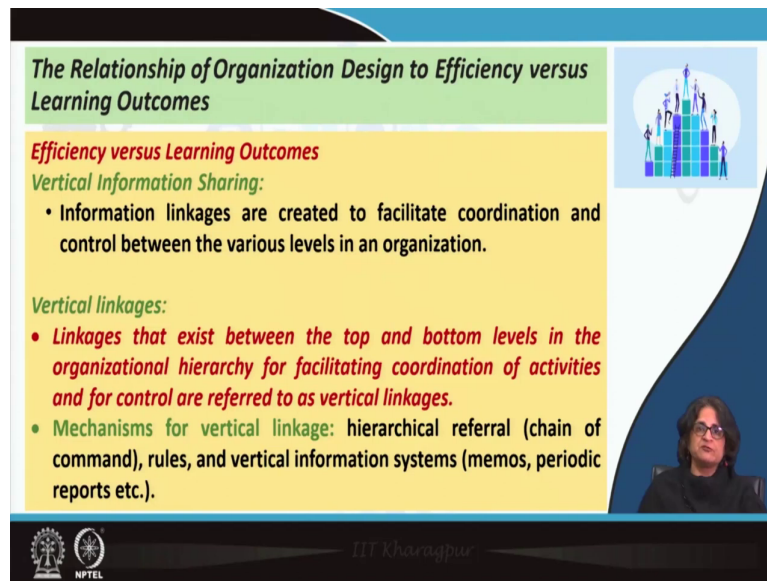
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So, if you see here in terms of the organizations designed for efficiency vertical organization vertical structure is dominant. Specialized task, strict hierarchy many rules and regulations, high formalization, vertical communication and reporting systems, few teams tasks and integrators and centralized decision making.

And then you move to the horizontal organization or the learning organizations designed for learning where horizontal structure is dominant. Shared tasks, empowerment relaxed hierarchy, very few rules and regulations, horizontal face to face communication, many teams many task forces and decentralized decision making. In the case of the vertical organization there are few teams, task forces and integrators.

But in the case of horizontal you have many teams empowered teams and task forces. So, this is the difference which you can observe.

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The Relationship of Organization Design to Efficiency versus Learning Outcomes


Efficiency versus Learning Outcomes

Vertical Information Sharing:

- Information linkages are created to facilitate coordination and control between the various levels in an organization.

Vertical linkages:

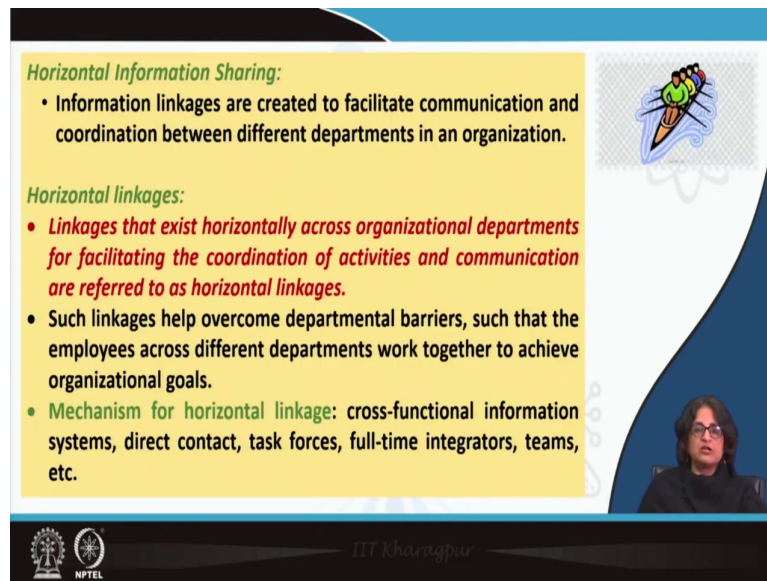
- Linkages that exist between the top and bottom levels in the organizational hierarchy for facilitating coordination of activities and for control are referred to as vertical linkages.
- Mechanisms for vertical linkage: hierarchical referral (chain of command), rules, and vertical information systems (memos, periodic reports etc.).

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So, ultimately the you know it is all about efficiency versus learning outcomes. In a vertical information sharing information linkages are created to facilitate coordination and control between different levels in the organization. But in and vertical in a linkages are created you know between the top and bottom levels and these linkages exist for facilitating of facilitating coordination of activities.

And for control mechanism for vertical linkage could be in the form of hierarchical reference, chain of command, rules as well as vertical information systems in the form of periodic reports, memos, orders, etcetera.

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Horizontal Information Sharing:

- Information linkages are created to facilitate communication and coordination between different departments in an organization.

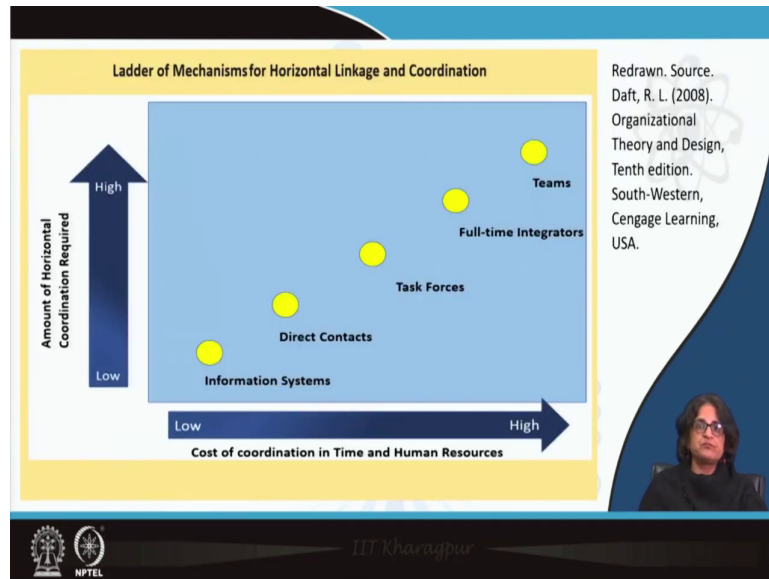
Horizontal linkages:

- **Linkages that exist horizontally across organizational departments for facilitating the coordination of activities and communication are referred to as horizontal linkages.**
- Such linkages help overcome departmental barriers, such that the employees across different departments work together to achieve organizational goals.
- **Mechanism for horizontal linkage:** cross-functional information systems, direct contact, task forces, full-time integrators, teams, etc.

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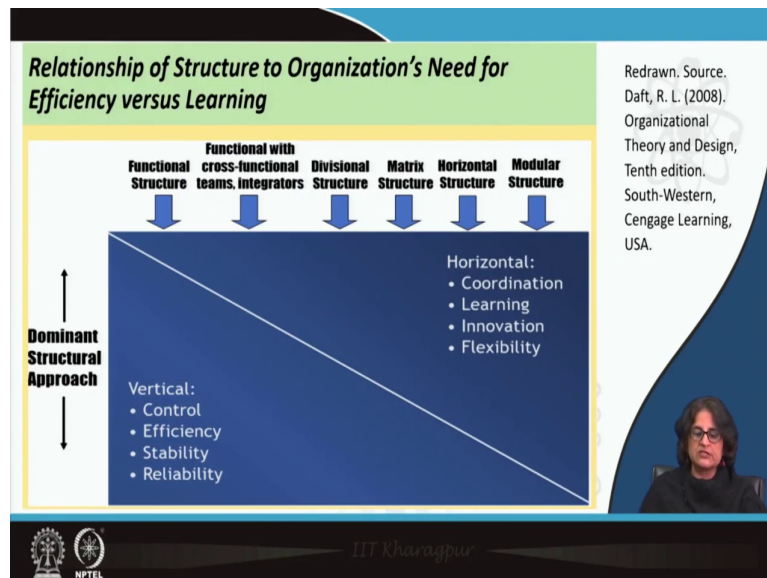
But if we look at the horizontal information sharing the information linkages are created to facilitate communication and coordination. The linkages exist horizontally across departments for facilitating coordination and communication. And such linkages help overcome departmental barriers, people cut across different departments they work together to achieve organizational goals and the mechanisms include cross functional information systems, task forces, full time integrators, teams, etcetera.

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So, if you see here the cost of coordinating in time and human resources on the x axis and the amount of horizontal coordination required on the y axis. You see that we start with information system which is low and we move to teams which is highest in terms of coordination required, amount of coordination required as well as the cost of coordination in time and human resources.

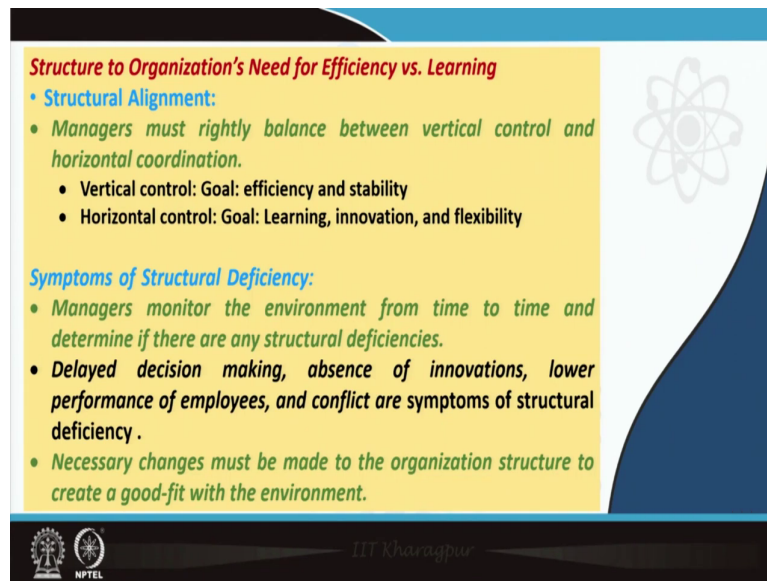
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So, finally, we come to the relationship of structure in terms of the different kinds of organizational structures which we studied vis a vis the efficiency versus learning. So, in the vertical linkages and vertical organizations the focus is on control, efficiency, stability, reliability.

So, you have a functional structure or functional with cross functional teams and integrators which will which can be really helpful. But when we talk of horizontal linkages, when we talk of horizontal differentiation and linkages, where we talk of coordination, learning, innovation and flexibility over there we see that matrix structure, horizontal structure and modular structures are more useful.

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Structure to Organization's Need for Efficiency vs. Learning

- **Structural Alignment:**
 - Managers must rightly balance between vertical control and horizontal coordination.
 - Vertical control: Goal: efficiency and stability
 - Horizontal control: Goal: Learning, innovation, and flexibility

Symptoms of Structural Deficiency:

- Managers monitor the environment from time to time and determine if there are any structural deficiencies.
- Delayed decision making, absence of innovations, lower performance of employees, and conflict are symptoms of structural deficiency .
- Necessary changes must be made to the organization structure to create a good-fit with the environment.

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So, in terms of structure alignment managers must actually bring about a balance between vertical control and horizontal coordination. Vertical control will lead us towards efficiency and stability, horizontal control leads towards learning innovation and flexibility.

So, while we talk of this we also have to take care of structural deficiency and ensure that organizations are open to symptoms of structural deficiency. Managers must monitor the environment from time to time and see if there are any structural deficiencies the common symptoms of structural deficiency are delayed decision making, absence of innovations, lower performance of employees and conflict.

And necessary changes must be made to the organization structure to fight these you know symptoms and to create a good fit with the environment.

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So, with this I come to an end of week three these are the references.

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CONCLUSION

This brings us to the end of the last lecture of Module 3.

We shall start with a new topic next week.

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We will begin with a new topic next week till then.

Thank you, bye.