

Organization Theory/Structure and Design
Prof. Zillur Rahman
Department of Management Studies
Indian Institute of Technology, Roorkee

Lecture – 08
Dimensions of Organization Structure – I

Welcome to this course Organization Theory/Structure and Design. Now, we will start with module-8. As you can see from this slide, module 8, 9 and 10 are dedicated to understanding of dimensions of Organization Structure. So, let us start with module-8. And we will talk about describing the three components comprising, complexity and then compare functional with social specialization. So these are the two things that we will cover in this module.

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INTRODUCTION
RESTRUCTURING OF CORPORATE WORLD

- These organizations are restructuring to cut costs, become more responsive to customers and competitors, or achieve some similar aim.
- But what is it that these organizations are restructuring? }
- Our answer to this question is complexity, formalization, and centralization.
- Acceptance of these three components as the core dimensions of organizational structure, while generally widespread today, is not universal.

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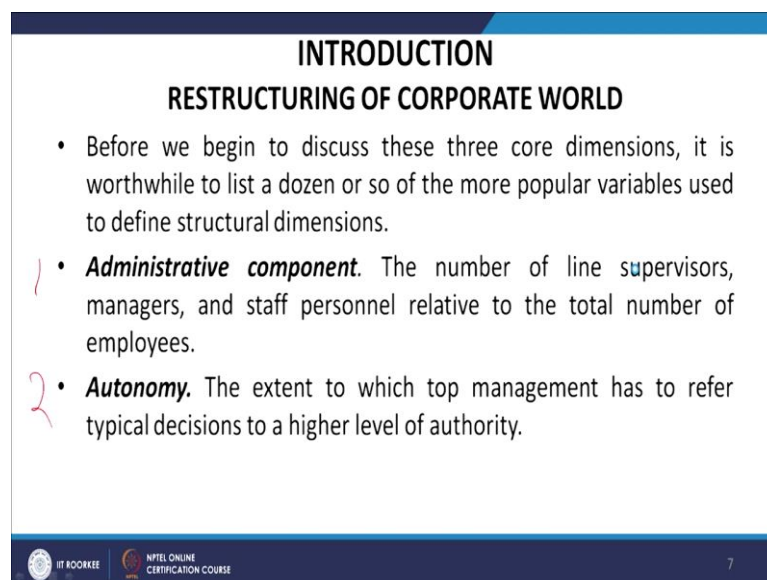
Now, let us look at this example of restructuring of corporate world. The article's headline reads, IBM Unveils a Sweeping Restructuring in Bid to Decentralize Decision Making, but IBM is not alone. In the last couple of years the name of firms that have restructured their organization read like who is who of corporate world, and that include AT and T, Apple Computers, General Electric, General Motors, Philip Morris, and Walt Disney Productions.

In fact, it is difficult nowadays to find a well-managed organization that has not recently restructured. These organizations are restructuring to cut cost, become more responsive

to customers and competitors or achieve some similar aim. So, all these organizations, or any organization that are going for restructuring, are looking at cutting cost, becoming more responsive to customers as well as competitors and some other similar aim.

But what is it that these organizations are restructuring? Our answer to this question is complexity, formalization, and centralization. So, these are the three things that organizations look for or change when they are restructuring. Acceptance of these three components are the core dimensions of organization structure, while generally widespread today, is not universal.

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The slide is titled "INTRODUCTION" and "RESTRUCTURING OF CORPORATE WORLD". It contains a bulleted list of variables used to define structural dimensions. The first bullet point is "Before we begin to discuss these three core dimensions, it is worthwhile to list a dozen or so of the more popular variables used to define structural dimensions." The second bullet point is "1. **Administrative component.** The number of line supervisors, managers, and staff personnel relative to the total number of employees." The third bullet point is "2. **Autonomy.** The extent to which top management has to refer typical decisions to a higher level of authority." The slide also features logos for "IIT ROORKEE" and "NPTEL ONLINE CERTIFICATION COURSE" at the bottom, along with the number "7".

INTRODUCTION

RESTRUCTURING OF CORPORATE WORLD

- Before we begin to discuss these three core dimensions, it is worthwhile to list a dozen or so of the more popular variables used to define structural dimensions.
- 1. **Administrative component.** The number of line supervisors, managers, and staff personnel relative to the total number of employees.
- 2. **Autonomy.** The extent to which top management has to refer typical decisions to a higher level of authority.

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Before we begin to discuss these three core dimensions, it is worthwhile to list a dozen or so of the more popular variables used to define structural dimensions. One such variable is the administrative component, that is, the number of line supervisors, managers, and staff personnel relative to the total number of employees. The second is autonomy, the extent to which top management has to refer typical decisions to a higher level of authority.

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The slide is titled "INTRODUCTION" and "RESTRUCTURING OF CORPORATE WORLD". It features a red handwritten number "3" next to the bullet point for "Centralization". The content lists four aspects of centralization: the proportion of jobs and areas of participation, concentration of power, an index of decision-making locus, and the degree of information sharing and participation in long-range planning. The footer includes the IIT Roorkee and NPTEL logos, and the slide number "8".

INTRODUCTION

RESTRUCTURING OF CORPORATE WORLD

- 3 • **Centralization.**
 - The proportion of jobs whose occupants participate in decision making and the number of areas in which they participate,
 - Or concentration of power arrangements.
 - Or an index reflecting the locus of decision making with respect to major and specific policies.
 - The degree of information sharing between levels, and the degree of participation in long-range planning.

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Centralization is the proportion of jobs whose occupants participate in decision making and the number of areas in which they participate, or concentration of power arrangements, or an index reflecting the locus of decision making with respect to major and specific policies; or the degree of information sharing between levels, and the degree of participation in the long-range planning.

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The slide is titled "INTRODUCTION" and "RESTRUCTURING OF CORPORATE WORLD". It features red handwritten numbers "4", "5", and "6" next to the bullet points for "Complexity", "Delegation of authority", and "Differentiation" respectively. The content defines these three concepts: Complexity (occupational specialties, professional activity, training), Delegation of authority (ratio of decisions delegated), and Differentiation (specialty functions, cognitive/emotional orientation). The footer includes the IIT Roorkee and NPTEL logos, and the slide number "9".

INTRODUCTION

RESTRUCTURING OF CORPORATE WORLD

- 4 • **Complexity.** The number of occupational specialties, the professional activity, and the professional training of employees.
- 5 • **Delegation of authority.** The ratio of the number of specific management decisions the chief executive has delegated to the number he or she has the authority to make.
- 6 • **Differentiation.** The number of specialty functions represented in a firm or the difference in cognitive and emotional orientation among managers in different departments.

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Complexity – the number of occupational specialties, the professional activity, and the professional training of employees. Delegation of authority – the ratio on the number of

specific management decisions, the chief executive has delegated to the number he or she has the authority to make. Differentiation – the number of specialty functions represented in a firm or the difference in cognitive and emotional orientation among managers in different departments.

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The slide is titled "INTRODUCTION" and "RESTRUCTURING OF CORPORATE WORLD". It lists three concepts, each preceded by a handwritten number in red ink: 7, 8, and 9. The concepts are: 7. **Formalization.** The extent to which an employee's role is defined by formal documentation. 8. **Integration.** The quality of the state of collaboration that exists among departments that are required to achieve unity of effort or plans or feedback used for coordination between organizational units. 9. **Professionalization.** The degree to which employees use a professional organization as a major reference, belief in service to the public, belief in self-regulation, dedication to one's field, and autonomy. The slide footer includes the IIT ROORKEE logo, the text "NPTEL ONLINE CERTIFICATION COURSE", and the number "10".

INTRODUCTION
RESTRUCTURING OF CORPORATE WORLD

- 7 • **Formalization.** The extent to which an employee's role is defined by formal documentation.
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Formalization – the extent to which an employee’s role is defined by formal documentation. Integration – the quality of the state of collaboration that exists among departments that are required to achieve unity of effort or plans or feedback used for coordination between organizational units. Professionalization – the degree to which employees use a professional organization as a major reference, belief in service to the public, belief in self-regulation, dedication to one’s field, and autonomy.

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INTRODUCTION

RESTRUCTURING OF CORPORATE WORLD

- 10 • **Span of control.** The number of subordinates that an individual manager can and should supervise.
- 11 • **Specialization.** The number of occupational specialties and the length of training required by each or the degree to which highly specialized requirements are spelled out in formal job descriptions for various function.
- 12 • **Standardization.** The range of variation that is tolerated within the rules defining the jobs.
- 13 • **Vertical span.** The number of levels in the authority hierarchy from the bottom to the top.

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The span of control – the number of subordinates that an individual manager can and should supervise. Specialization – the number of occupational specialties and the length of training required by each or the degree to which highly specialized requirements are spelled out in formal job description for various functions. Standardization – the range of variation that is tolerated within the rules defining the jobs. Vertical span – the number of levels in the authority hierarchy from the bottom to the top.

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INTRODUCTION

RESTRUCTURING OF CORPORATE WORLD

- This listing is meant to indicate that there is by no means complete agreement among theorists as to what makes up the term organization structure.
- As we will proceed further, you will find that almost all the dimensions cited are considered directly or indirectly.
- So a more accurate conclusion may be that theorists generally agree on the dimensions of organization structure.
- But disagree on operational definitions and whether a dimension is primary or subsumed under some larger dimension.

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Now, let us continue with the discussion on restructuring of corporate world. The listing is meant to indicate that there is by no means complete agreement among theorists as to what makes up the term organization structure. As we will proceed further, you will find that almost all the dimensions cited are considered directly or indirectly.

So, a more accurate conclusion may be that theorists generally agree on the dimensions of organization structure. But disagree on operational definitions and whether a dimension is primary or subsumed under some larger definition.

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INTRODUCTION

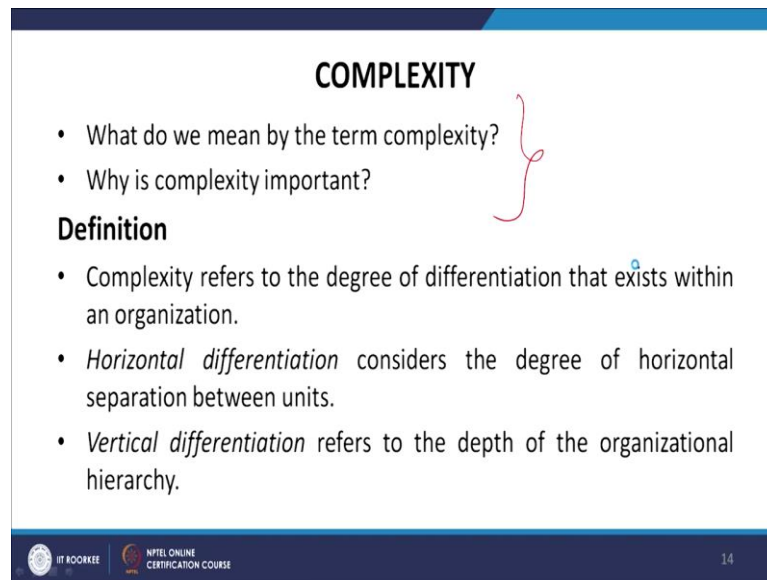
RESTRUCTURING OF CORPORATE WORLD

- With acknowledgment made to the divergent labels and definitions given to structure, let us proceed to construct an in-depth understanding of the term by looking at the first of our dimensions—complexity.

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With acknowledgement made to the divergent labels and definitions given to a structure, let us proceed to construct an in-depth understanding of the term by looking at the first of our dimensions that is complexity.

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COMPLEXITY

- What do we mean by the term complexity?
- Why is complexity important?

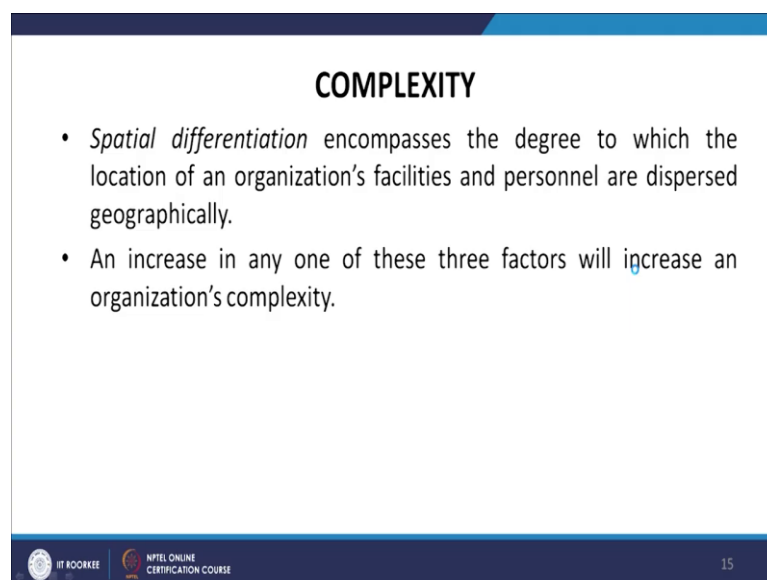
Definition

- Complexity refers to the degree of differentiation that exists within an organization.
- *Horizontal differentiation* considers the degree of horizontal separation between units.
- *Vertical differentiation* refers to the depth of the organizational hierarchy.

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Let us start with complexity. What do we mean by the term complexity, and why is complexity important for our discussion? What is the definition of complexity? Complexity refers to the degree of differentiation that exists within an organization. Horizontal differentiation considers the degree of horizontal separation between units, and vertical differentiation refers to the depth of the organizational hierarchy.

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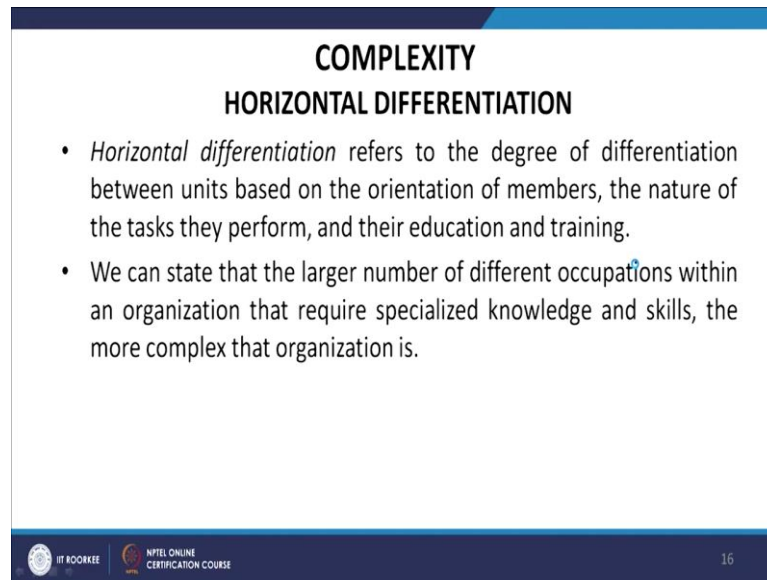
COMPLEXITY

- *Spatial differentiation* encompasses the degree to which the location of an organization's facilities and personnel are dispersed geographically.
- An increase in any one of these three factors will increase an organization's complexity.

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Spatial differentiation encompasses the degree to which the location of an organization's facilities and personnel are dispersed geographically. An increase in any one of these three factors will increase an organization's complexity.

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COMPLEXITY
HORIZONTAL DIFFERENTIATION

- *Horizontal differentiation* refers to the degree of differentiation between units based on the orientation of members, the nature of the tasks they perform, and their education and training.
- We can state that the larger number of different occupations within an organization that require specialized knowledge and skills, the more complex that organization is.

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So, what is this horizontal differentiation? Horizontal differentiation refers to the degree of differentiation between units based on the orientation of members, the nature of the task they perform, and their education and training. We can state that the larger number of different occupations within an organization that require specialized knowledge and skills, the more complex that organization is.

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COMPLEXITY
HORIZONTAL DIFFERENTIATION

- Why? Because diverse orientations make it more difficult for organizational members to communicate and more difficult for management to coordinate their activities.
- *For instance*, when organizations create specialized groups or expand departmental designations-
 - They differentiate groups from each other, making interactions between those groups more complex.

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Why? Because diverse orientations make it more difficult for organization's members to communicate and more difficult for management to coordinate their activities. For instance, when organizations create specialized groups or expand departmental designations, they differentiate groups from each other, making interactions between those groups more complex.

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COMPLEXITY
HORIZONTAL DIFFERENTIATION

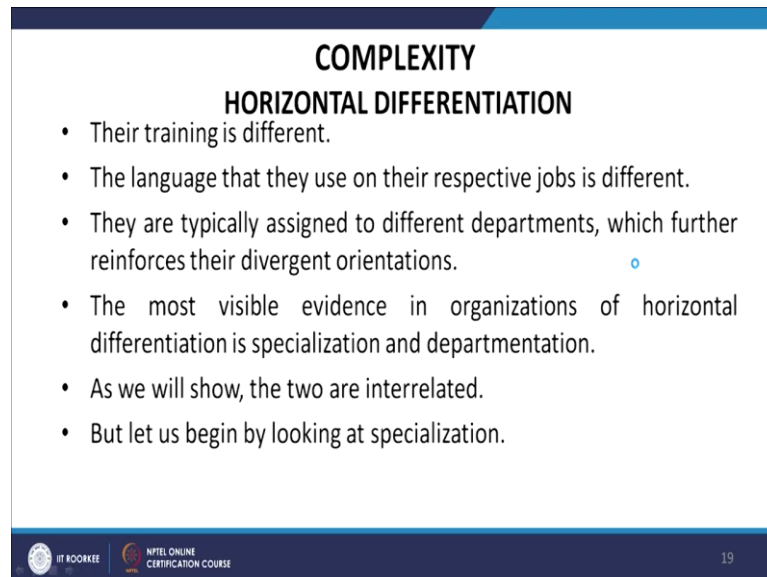
- If the organization is staffed by people who have similar backgrounds, skills, and training, they are likely to see the world in more similar terms.
- Conversely, diversity increases the likelihood that they will have different goal emphases, time orientations, and even a different work vocabulary.
- Job specialization reinforces differences—the chemical engineer's job is clearly different from that of the personnel recruitment interviewer.

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increases the likelihood that they will have different goal emphases, time orientations, and even a different work vocabulary. Job specialization reinforces differences – the chemical engineer’s job is clearly different from that of the personnel recruitment interviewer.

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COMPLEXITY
HORIZONTAL DIFFERENTIATION

- Their training is different.
- The language that they use on their respective jobs is different.
- They are typically assigned to different departments, which further reinforces their divergent orientations.
- The most visible evidence in organizations of horizontal differentiation is specialization and departmentation.
- As we will show, the two are interrelated.
- But let us begin by looking at specialization.

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Their training is different. The language that they use on their respective jobs is different. They are typically assigned to different departments, which further reinforces their divergent orientations. The most visible evidence in organizations of horizontal differentiation is specialization and departmentation. As we will show, the two are interrelated. But let us begin by looking at specialization.

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COMPLEXITY

HORIZONTAL DIFFERENTIATION - SPECIALIZATION

- Specialization refers to the particular grouping of activities performed by an individual.
- It can be achieved in one of two ways.
- The most well known form of specialization is through functional specialization—in which jobs are broken down into simple and repetitive tasks.
- Also known as *division of labor*, functional specialization creates high substitutability among employees and facilitates their easy replacement by management.

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So, now we are talking about specialization. Specialization refers to the particular grouping of activities performed by an individual. It can be achieved in one of the two ways.

So, the most well-known form of specialization is through functional specialization - in which jobs are broken down into simple and repetitive tasks. Also known as division of labour, functional specialization creates high substitutability among employees and facilitate their easy replacement by management.

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COMPLEXITY

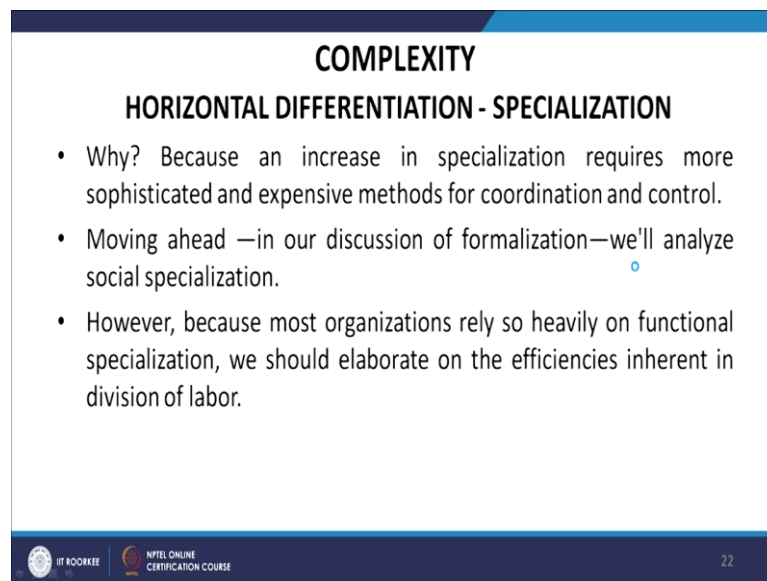
HORIZONTAL DIFFERENTIATION - SPECIALIZATION

- If *individuals* are specialized, rather than their *work*, we have **social specialization**.
- Social specialization is achieved by hiring professionals who hold skills that cannot be readily routinized.
- The work typically done by *civil engineers*, *nuclear physicists*, and *registered nurses* is specialized, but the activities they perform vary by situation.
- An increase in either form of specialization results in increased complexity within the organization.

IIT ROORKEE NPTEL ONLINE CERTIFICATION COURSE 21

If individuals are specialized, rather than their work, we have social specialization. Social specialization is achieved by hiring professionals who hold skills that cannot be readily routinized. The work typically done by civil engineers, nuclear physicists and registered nurses is specialized, but the activities they perform vary by situation. An increase in either form of the specialization result in increased complexity within the organization.

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COMPLEXITY

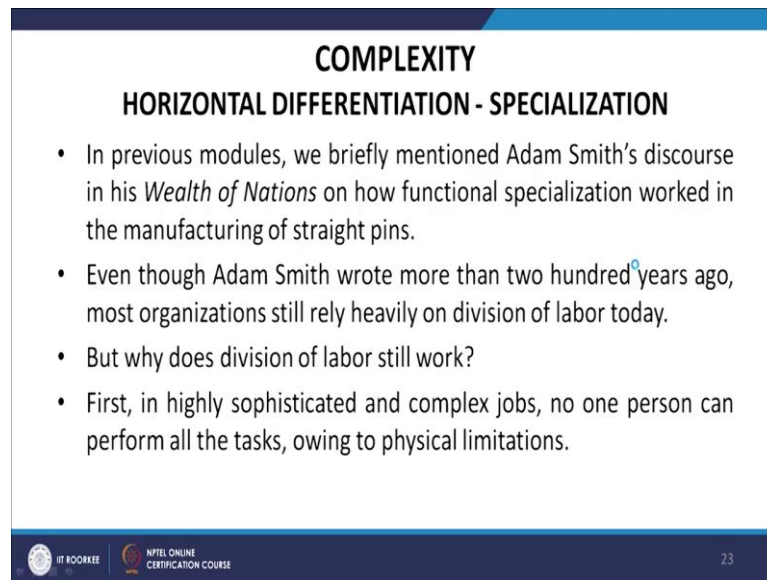
HORIZONTAL DIFFERENTIATION - SPECIALIZATION

- Why? Because an increase in specialization requires more sophisticated and expensive methods for coordination and control.
- Moving ahead —in our discussion of formalization—we'll analyze social specialization.
- However, because most organizations rely so heavily on functional specialization, we should elaborate on the efficiencies inherent in division of labor.

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Why? Because an increase in specialization requires more sophisticated and expensive methods of coordination and control. Moving ahead – in our discussion of formalization – we will analyze social specialization. However, because most organizations rely so heavily on functional specialization, we should elaborate on the efficiencies inherent in division of labor.

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COMPLEXITY

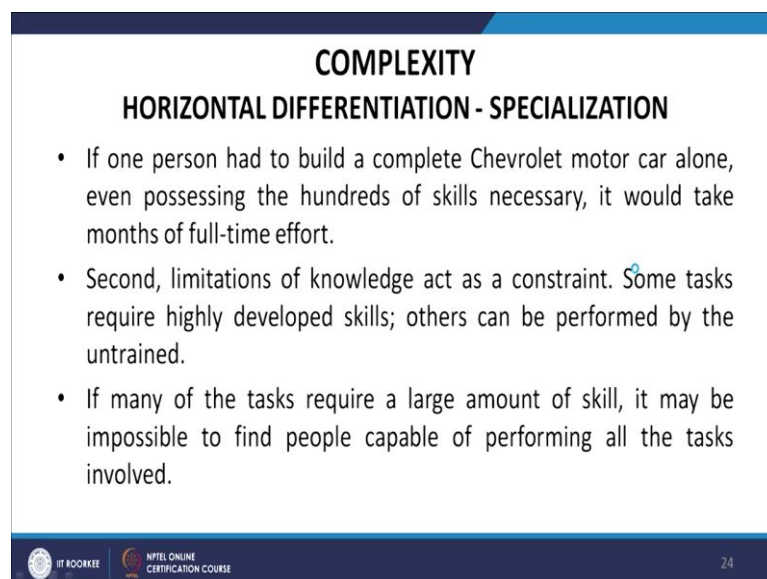
HORIZONTAL DIFFERENTIATION - SPECIALIZATION

- In previous modules, we briefly mentioned Adam Smith's discourse in his *Wealth of Nations* on how functional specialization worked in the manufacturing of straight pins.
- Even though Adam Smith wrote more than two hundred years ago, most organizations still rely heavily on division of labor today.
- But why does division of labor still work?
- First, in highly sophisticated and complex jobs, no one person can perform all the tasks, owing to physical limitations.

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In previous modules, we briefly mentioned Adam Smith's discourse in his 'Wealth of Nations' on how functional specialization worked in the manufacturing of straight pins. Even though Adam Smith wrote more than two hundred years ago, most organizations still rely heavily on the division of labor today. But why does division of labor still work? First, in highly sophisticated and complex jobs no one person can perform all the tasks, owing to physical limitations.

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COMPLEXITY

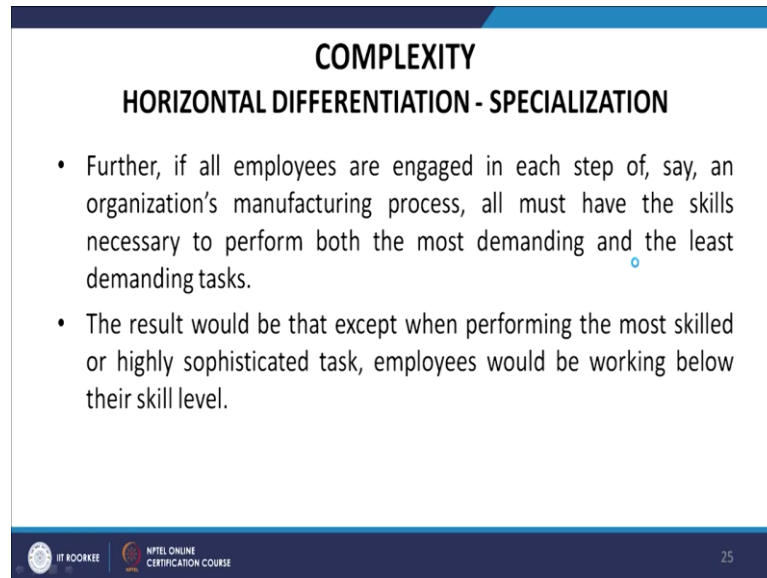
HORIZONTAL DIFFERENTIATION - SPECIALIZATION

- If one person had to build a complete Chevrolet motor car alone, even possessing the hundreds of skills necessary, it would take months of full-time effort.
- Second, limitations of knowledge act as a constraint. Some tasks require highly developed skills; others can be performed by the untrained.
- If many of the tasks require a large amount of skill, it may be impossible to find people capable of performing all the tasks involved.

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If one person had to build a complete Chevrolet motor car alone, even possessing the hundreds of skills necessary, it would take months of full-time efforts. Second, limitations of knowledge act as a constraint. Some tasks require highly developed skills; others can be performed by untrained. If many of the tasks require a large amount of a skill, it may be impossible to find people capable of performing all the tasks involved.

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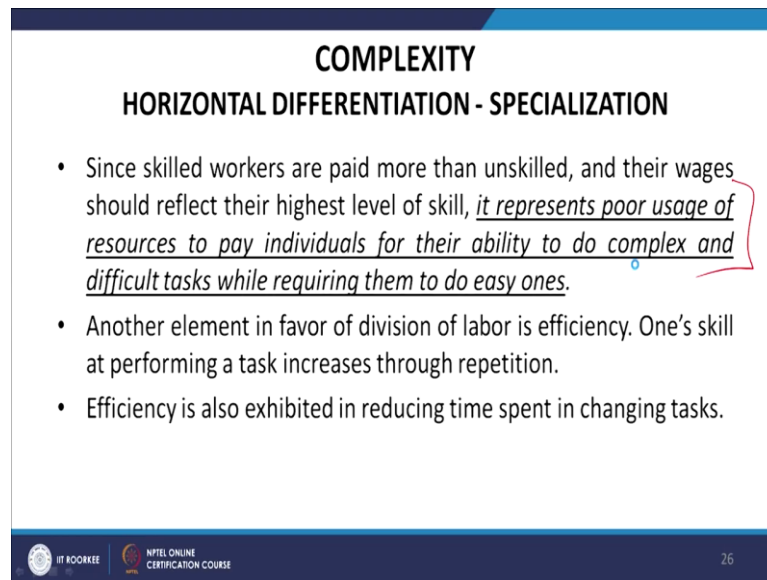
COMPLEXITY
HORIZONTAL DIFFERENTIATION - SPECIALIZATION

- Further, if all employees are engaged in each step of, say, an organization's manufacturing process, all must have the skills necessary to perform both the most demanding and the least demanding tasks.
- The result would be that except when performing the most skilled or highly sophisticated task, employees would be working below their skill level.

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Further, if all employees are engaged in the each step of, say, an organization's manufacturing process, all must have the skills necessary to perform both the most demanding and the least demanding tasks. The result would be that except when performing the most skilled or highly sophisticated task employees would be working below their skill levels.

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COMPLEXITY

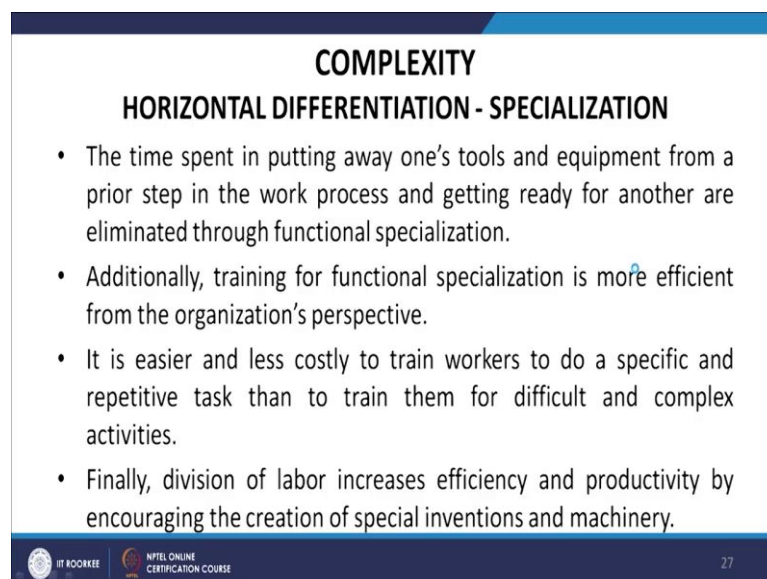
HORIZONTAL DIFFERENTIATION - SPECIALIZATION

- Since skilled workers are paid more than unskilled, and their wages should reflect their highest level of skill, it represents poor usage of resources to pay individuals for their ability to do complex and difficult tasks while requiring them to do easy ones.
- Another element in favor of division of labor is efficiency. One's skill at performing a task increases through repetition.
- Efficiency is also exhibited in reducing time spent in changing tasks.

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Since the skilled workers are paid more than unskilled, and their wages should reflect their highest level of a skill, it represents poor usage of resources to pay individuals for their ability to do complex and difficult tasks while requiring them to do easy ones. Another element in favour of division of labor is efficiency. One's skill at performing a task increases through repetition. Efficiency is also exhibited in reducing time spent in changing tasks.

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COMPLEXITY

HORIZONTAL DIFFERENTIATION - SPECIALIZATION

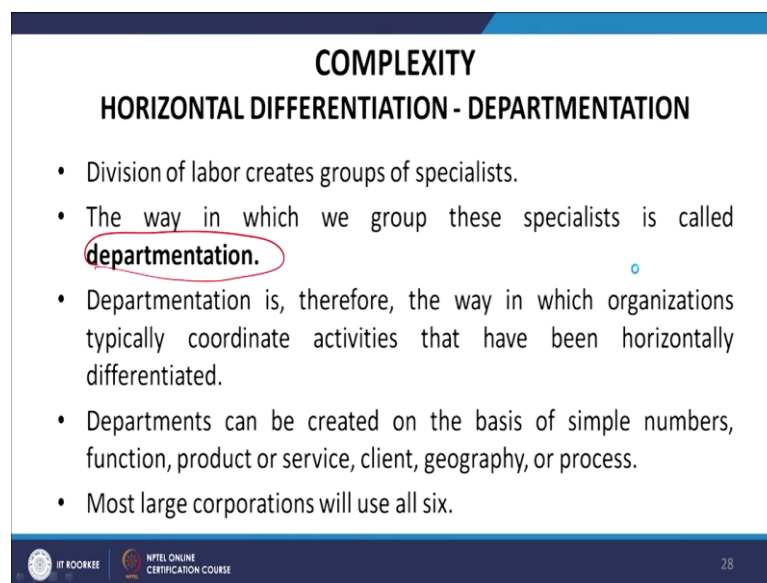
- The time spent in putting away one's tools and equipment from a prior step in the work process and getting ready for another are eliminated through functional specialization.
- Additionally, training for functional specialization is more efficient from the organization's perspective.
- It is easier and less costly to train workers to do a specific and repetitive task than to train them for difficult and complex activities.
- Finally, division of labor increases efficiency and productivity by encouraging the creation of special inventions and machinery.

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The time spent in putting away one's tools and equipment from a prior step in the work process and getting ready for another are eliminated through functional specialization. Additionally, training for functional specialization is more efficient from the organization's perspective.

It is easier and less costly to train workers to do a specific and repetitive task than to train them for difficult and complex activities. Finally, division of labor increases efficiency and productivity by encouraging the creation of special inventions and machineries.

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COMPLEXITY

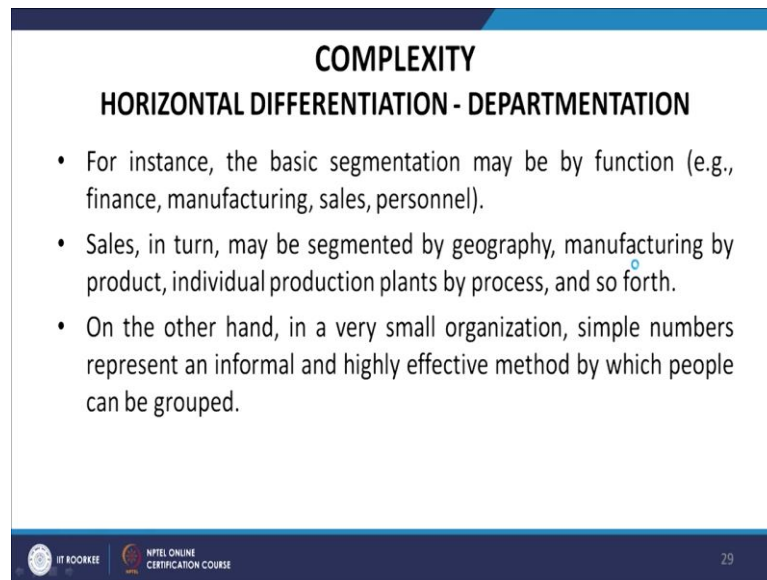
HORIZONTAL DIFFERENTIATION - DEPARTMENTATION

- Division of labor creates groups of specialists.
- The way in which we group these specialists is called **departmentation**.
- Departmentation is, therefore, the way in which organizations typically coordinate activities that have been horizontally differentiated.
- Departments can be created on the basis of simple numbers, function, product or service, client, geography, or process.
- Most large corporations will use all six.

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Let us look at another dimension of horizontal differentiation that is departmentation. Division of labor creates groups of specialists. The way in which we group these specialists is called departmentation. Departmentation is therefore, the way in which organizations typically coordinate activities that have been horizontally differentiated. Departments can be created on the basis of simple numbers, function, products, product or service, client, geography or process. Most large corporation will use all six.

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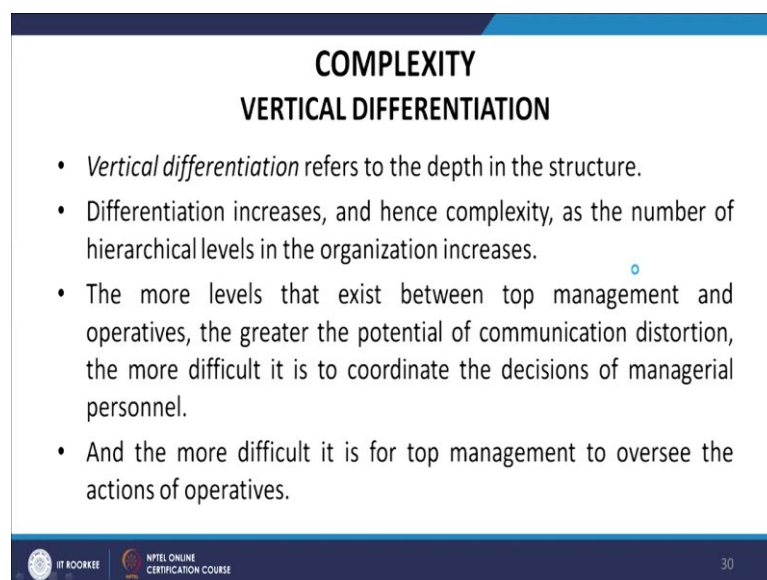
COMPLEXITY
HORIZONTAL DIFFERENTIATION - DEPARTMENTATION

- For instance, the basic segmentation may be by function (e.g., finance, manufacturing, sales, personnel).
- Sales, in turn, may be segmented by geography, manufacturing by product, individual production plants by process, and so forth.
- On the other hand, in a very small organization, simple numbers represent an informal and highly effective method by which people can be grouped.

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For instance, the basic segmentation may be by function, for example, finance, manufacturing, sales, and personnel. Sales, in turn, may be segmented by geography, manufacturing by product, individual production plants by process, and so forth. On the other hand, in a very small organization, simple numbers represent an informal and highly effective method by which people can be grouped.

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COMPLEXITY
VERTICAL DIFFERENTIATION

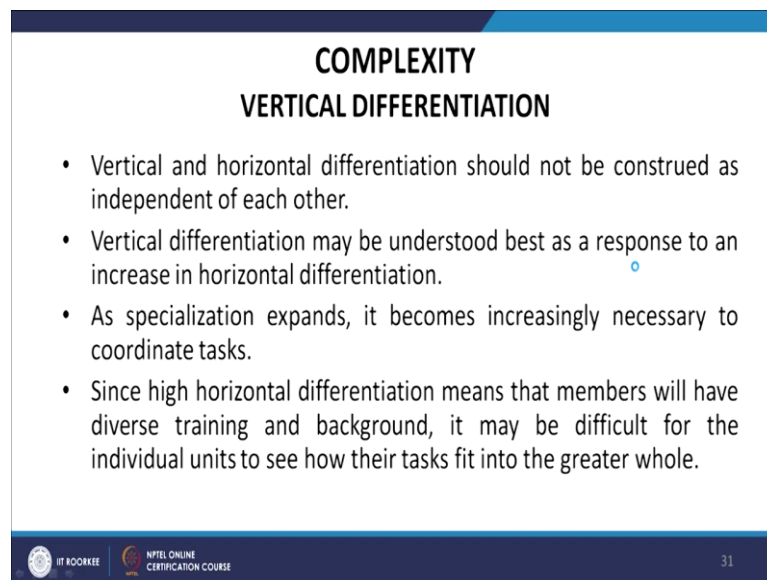
- *Vertical differentiation* refers to the depth in the structure.
- Differentiation increases, and hence complexity, as the number of hierarchical levels in the organization increases.
- The more levels that exist between top management and operatives, the greater the potential of communication distortion, the more difficult it is to coordinate the decisions of managerial personnel.
- And the more difficult it is for top management to oversee the actions of operatives.

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Another dimension of complexity is vertical differentiation. Vertical differentiation refers to the depth in the structure. Differentiation increases, and hence complexity as the

number of hierarchical levels in the organization increases. The more levels that exist between top management and operatives, the greater the potential of communication distortion the more difficult it is to coordinate the decisions of managerial personnel. And the more difficult it is for the top management to oversee the actions of operatives.

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COMPLEXITY
VERTICAL DIFFERENTIATION

- Vertical and horizontal differentiation should not be construed as independent of each other.
- Vertical differentiation may be understood best as a response to an increase in horizontal differentiation.
- As specialization expands, it becomes increasingly necessary to coordinate tasks.
- Since high horizontal differentiation means that members will have diverse training and background, it may be difficult for the individual units to see how their tasks fit into the greater whole.

IT ROORKEE | NPTEL ONLINE CERTIFICATION COURSE 31

Vertical and horizontal differentiation should not be construed as independent of each other. Vertical differentiation may be understood best as a response to an increase in horizontal differentiation. As specialization expands, it becomes increasingly necessary to coordinate tasks. Since high horizontal differentiation means that members will have diverse training and background, it may be difficult for the individual units to see how their tasks fit into the greater whole.

A company specializing in road construction will employ surveyors, grading architects, bridge designers, clerical personnel, asphalt tenders, cement mason, truck drivers and heavy duty equipment operators, but someone must supervise each of these occupational groups to ensure that the work is done according to plan and on time.

The result is a need for increased coordination which shows itself in the development of vertical differentiation. Organizations with the same number of employees need not have the same degrees of vertical differentiation.

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COMPLEXITY
VERTICAL DIFFERENTIATION

- Organizations can be tall, with many layers of hierarchy, or flat, with few levels. The determining factor is the span of control.
- The **span of control** defines the number of subordinates that a manager can direct effectively.
- If this span is wide, managers will have a number of subordinates reporting to them.
- If it is narrow, managers will have few underlings.
- All things being equal, the smaller the span, the taller the organization. This point is important and requires elaboration.

Handwritten diagram: A vertical line with two horizontal branches at the top, representing a hierarchy. The branches are labeled 'I' and 'I'.

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Organizations can be tall, with many layers of hierarchy, or flat, with few levels. The determining factor is the span of control. The span of control defines the number of subordinates that a manager can direct effectively. If this span is wide, managers will have a number of subordinates reporting to them. If it is narrow, managers will have few underlings.

All things being equal, the smaller the span, the taller the organization. This point is important and it requires elaboration. Smaller the span, the taller the organization, because that will require more people in the supervisory role.

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COMPLEXITY

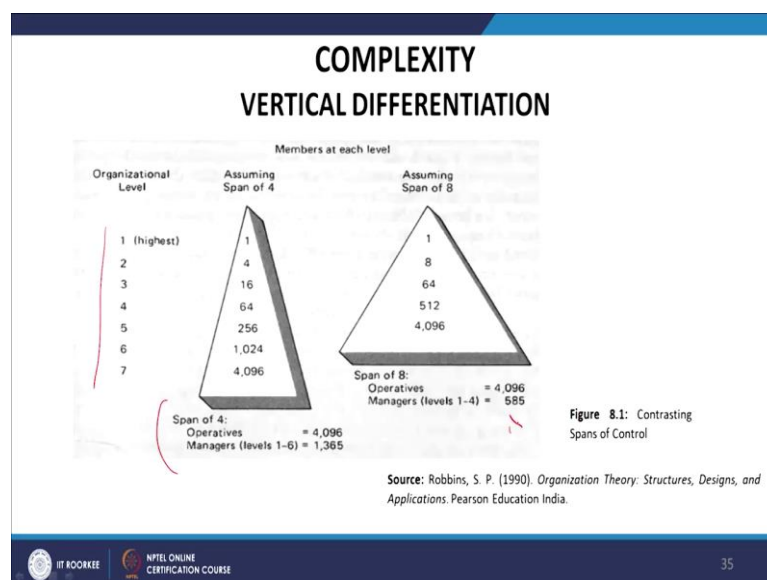
VERTICAL DIFFERENTIATION

- Simple arithmetic will show that the difference between an average management span of, say, four, and one of eight in a company of four thousand nonmanagerial employees can make a difference of two entire levels of management and of nearly eight hundred managers.
- This statement is illustrated in Figure 8.1.
- You will note that each of the operative (lowest) levels contains 4096 employees.

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Simple arithmetic will show that the difference between an average management span of, say, four, and one of eight in a company of four thousand nonmanagerial employees can make a difference of two entire levels of management and of nearly eight hundred managers. This statement is illustrated in figure 8.1. We will note that each of the operatives (lowest) levels contains 4096 employees.

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So, this is that figure 8.1 that contrasts span of control. So, on the left hand side, we have organizational levels from 1 that is highest to 7. Then in between we have assuming span

of 4. And to the extreme right, we have assuming span of 8. This is members at each level. So, now you can see when we are talking about span of 4, operatives may be 4096 and manager level 1 to 6 are 1365. When we are talking about span of 8, then the manager level 1 to 4, it comes down to 585.

(Refer Slide Time: 20:36)

COMPLEXITY
VERTICAL DIFFERENTIATION

- All the other levels represent management positions: 1365 managers (levels 1-6) with a span of 4; 585 managers (levels 1-4) with a span of 8.
- The narrower span (4) creates high vertical differentiation and a tall organization.
- The wider span creates a flatter organization.
- The evidence is clouded on whether the tall or flat organization is more effective.

more effective

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All the other levels represent management positions, 1365 managers – level 1 to 6 and with the span of 4; and 585 managers – levels 1 to 4 within a span of 8. The narrower span creates high vertical differentiation and a tall organization. The wider spread creates a flatter organization. The evidence is clouded on whether the tall or flat organization is more effective; which one whether should it be tall or should it be flat which is more effective.

(Refer Slide Time: 20:48)

COMPLEXITY
VERTICAL DIFFERENTIATION

- Tall structures provide closer supervision and tighter "boss-oriented" controls.
- Coordination and communication become complicated because of the increased number of layers through which directives must go.
- Flat structures have:
 - 1 - a shorter and simpler communication chain,
 - 2 - less opportunity for supervision since each manager has more people reporting to him or her, and
 - 3 - reduced promotion opportunities as a result of fewer levels of management.

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Tall structures provide closer supervision and tighter boss-oriented controls. Coordination and communication become complicated because of the increased number of layers through which directives must go. Flat structures have a shorter and simpler communication chain, less opportunity for supervision since each manager has more people reporting to him or her, and reduced promotion opportunities as result of fewer levels of management.

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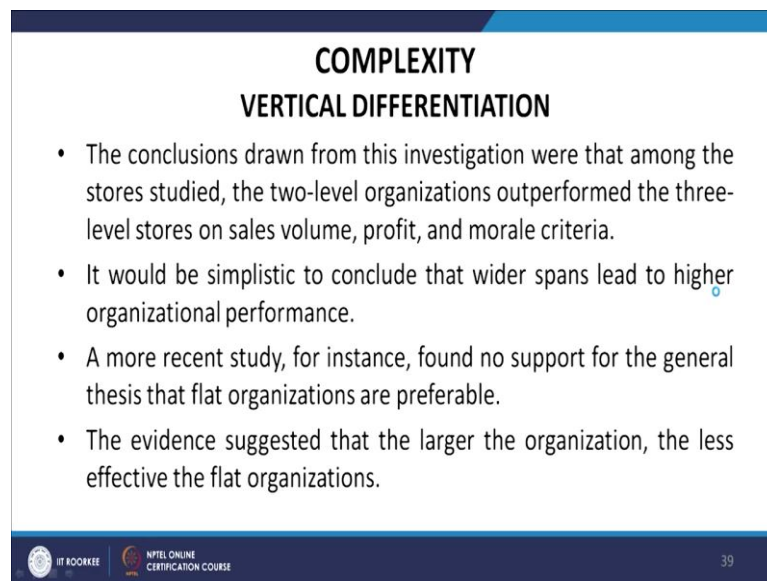
COMPLEXITY
VERTICAL DIFFERENTIATION

- An early study at Sears Roebuck(American departmental store chain) support for the flat organization, or low vertical-differentiation case.
- Two groups of Sears' stores, having between 150 and 175 employees, were the subject of the investigation.
- One group had only two levels of management: the store manager and approximately thirty department managers.
- The second group, in contrast, had three levels: a store manager, group managers, and merchandise managers.

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An early study at Sears and Roebuck, that is American departmental store chain support for the flat organization, or low vertical-differentiation case. Two groups of Sears' stores, having between 150 and 175 employees were the subject of the investigation. One group had only two levels of management, the store manager and approximately thirty different managers. The second group, in contrast, had three levels – a store manager, group managers, and merchandise managers.

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COMPLEXITY
VERTICAL DIFFERENTIATION

- The conclusions drawn from this investigation were that among the stores studied, the two-level organizations outperformed the three-level stores on sales volume, profit, and morale criteria.
- It would be simplistic to conclude that wider spans lead to higher organizational performance.
- A more recent study, for instance, found no support for the general thesis that flat organizations are preferable.
- The evidence suggested that the larger the organization, the less effective the flat organizations.

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The conclusion drawn from this investigation were that among the stores studied, the two-level organizations outperformed the three-level stores on sales volumes, profit, and morale criteria. It would be simplistic to conclude that wider spans lead to a higher organizational performance. A more recent study for instance found no support for the general thesis that flat organizations are preferable. The evidence suggested that the larger the organization, the less effective the flat organization.

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COMPLEXITY

VERTICAL DIFFERENTIATION

- Increased size brings with it complexity and more demands on every manager's time.
- Tall structures, with their narrow spans, reduce the manager's day-to-day supervisory responsibilities and give more time for involvement with the manager's own boss.
- Further evidence indicates that, in addition to the size of the organization, type of job and the individual characteristics of the job holder will moderate the span-organizational effectiveness relationship.

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Increased size brings with it complexity and more demands on each manager's time. Tall structures, with their narrow spans, reduce the manager's day-to-day supervisory responsibilities and give more time for involvement with the manager's own boss. Further evidence indicates that, in addition to the size of the organization, type of job and individual characteristics of the job holders will moderate the span-organizational effectiveness relationship.

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COMPLEXITY

VERTICAL DIFFERENTIATION

- Certain jobs require more direction, whereas others require less, and individuals, depending on their education, skills, and personal characteristics, vary in the degree of freedom or control they prefer.

Job → direction
People → Control → Edu. & Personal ch.

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Certain job requires more direction whereas, other requires less, and individuals, depending on their education, skills, and personal characteristics, vary in the degree of freedom or control they prefer. So, people - this is control, educational level, skills, and personal characteristics. Another dimension of complexity is spatial differentiation. So, we have talked about horizontal differentiation, vertical differentiation, and now we will talk about spatial differentiation.

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COMPLEXITY
SPATIAL DIFFERENTIATION

- An organization can perform the same activities with the same degree of horizontal differentiation and hierarchical arrangement in multiple locations.
- Yet this existence of multiple locations increases complexity.
- Therefore, the third element in complexity is spatial differentiation, which refers to the degree to which the location of an organization's offices, plants, and personnel are dispersed geographically.

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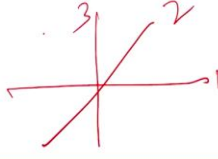
An organization can perform same activities with the same degree of horizontal differentiation and hierarchical arrangement in multiple locations. Yet this existence of multiple locations increases complexity. Therefore, the third element in complexity is spatial differentiation which refers to the degree to which the location of an organization's offices, plants, and personnel are dispersed geographically.



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COMPLEXITY

SPATIAL DIFFERENTIATION

- Spatial differentiation can be thought of as an extended dimension to horizontal and vertical differentiation.
- That is, it is possible to separate tasks and power centers geographically.
- This separation includes dispersion by both number and distance.
- Several examples may make this clearer.



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Spatial differentiation can be thought of as an extended dimension to horizontal or vertical differentiation. So, these are the three dimensions of differentiation that is it is possible to separate tasks and power centers geographically. This separation includes dispersion by both number and distance. Several examples may make this clearer.

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COMPLEXITY

SPATIAL DIFFERENTIATION

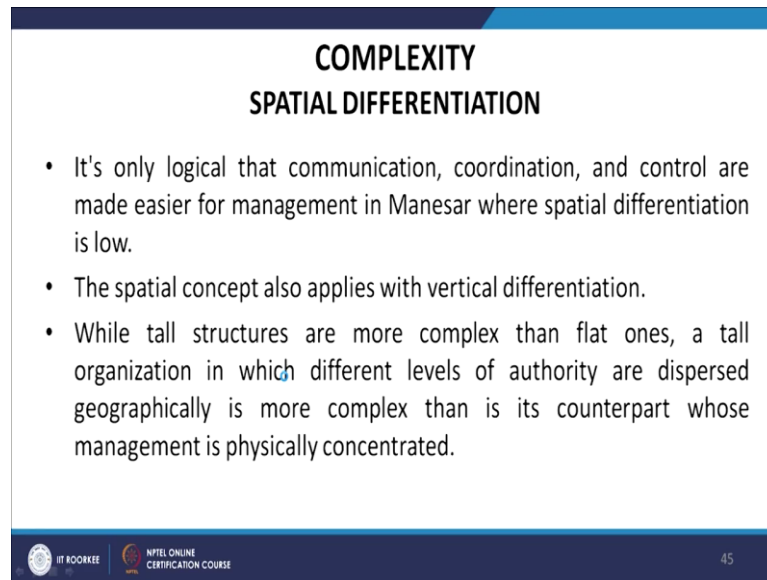
- A manufacturing company differentiates horizontally when it separates marketing functions from production.
- Yet if essentially identical marketing activities are carried on in six geographically dispersed sales offices—Delhi, Mumbai, Kolkata, Bangalore, and Hyderabad, while all production is done in a large factory in Manesar.
- This organization is more complex than *if both the marketing and production activities were performed at the same facility in Manesar.*

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A manufacturing company differentiates horizontally when it separates marketing functions from production. Yet if essentially identical marketing activities are carried on in six geographically dispersed sales offices like Delhi, Mumbai, Kolkata, Bangalore,

and Hyderabad, while all production is done in a large factory in Manesar, which is in Haryana. This organization is more complex than if both the marketing and production activities were performed at the same facility in Manesar.

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The slide is titled "COMPLEXITY" and "SPATIAL DIFFERENTIATION". It contains three bullet points discussing the relationship between spatial differentiation, vertical differentiation, and organizational complexity. The slide is part of an NPTEL Online Certification Course, as indicated by the footer.

- It's only logical that communication, coordination, and control are made easier for management in Manesar where spatial differentiation is low.
- The spatial concept also applies with vertical differentiation.
- While tall structures are more complex than flat ones, a tall organization in which different levels of authority are dispersed geographically is more complex than is its counterpart whose management is physically concentrated.

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It is only logical that communication, coordination, and control are made easier for management in Manesar where spatial differentiation is low. The spatial concept also applies with vertical differentiation. While tall structures are more complex than flat ones, a tall organization in which different levels of authority are dispersed geographically is more complex than is its counterpart whose management is physically concentrated.

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COMPLEXITY
SPATIAL DIFFERENTIATION

- If senior executives reside in one city, middle managers in half a dozen cities, and lower-level managers in a hundred different company offices around the world, complexity is increased.
- Even though computer technology has dramatically improved the ability for these separated decision makers to retrieve information and communicate with each other, complexity has still increased.

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If senior executives reside in one city, middle managers in half a dozen cities, and lower-level managers in a hundred different company offices around the world, complexity is increased. Even though computer technology has dramatically improved the ability for these separated decision makers to retrieve information and communicate with each other, complexity has still increased.

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COMPLEXITY
SPATIAL DIFFERENTIATION

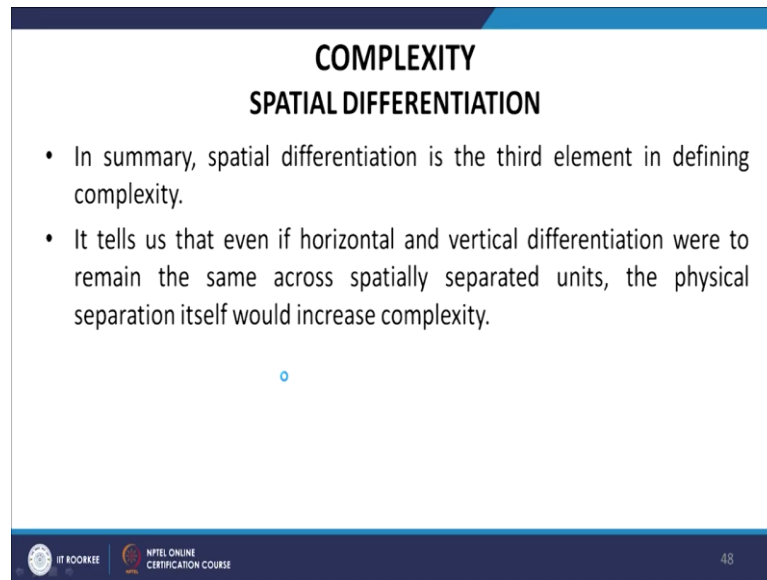
- Finally, the spatial-differentiation element considers distance as well as numbers.
- If the state of Uttarakhand has two regional welfare offices—one in Dehradun and another in Haridwar—they will be approximately 54 kilometers apart.
- Even though the state of Uttar Pradesh also has only two comparably sized offices—in Lucknow and Meerut, which are separated by 575 kilometers—the Uttarakhand welfare organization is less complex.

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Finally, the spatial differentiation element considers distance as well as numbers. If the state of Uttarakhand has two regional of welfare offices – one in Dehradun and another

in Haridwar – they will be approximately 54 Kilometers apart. Even though the state of Uttar Pradesh also has only two comparably sized offices – in Lucknow and Meerut, they are separated by 575 kilometers – the Uttarakhand welfare organization is less complex.

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COMPLEXITY
SPATIAL DIFFERENTIATION

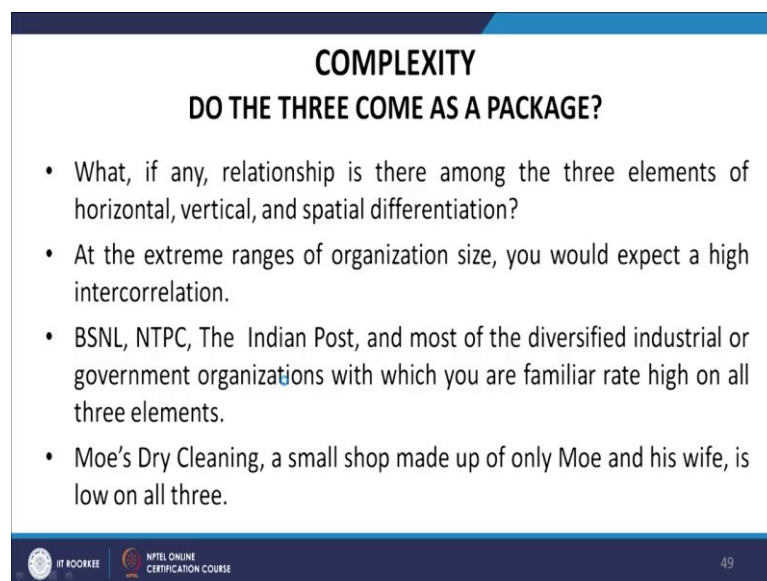
- In summary, spatial differentiation is the third element in defining complexity.
- It tells us that even if horizontal and vertical differentiation were to remain the same across spatially separated units, the physical separation itself would increase complexity.

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In summary, spatial differentiation is the third element in defining complexity. It tells us that even if horizontal and vertical differentiation were to remain the same across spatially separated units, the physical separation itself would increase complexity.

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COMPLEXITY
DO THE THREE COME AS A PACKAGE?

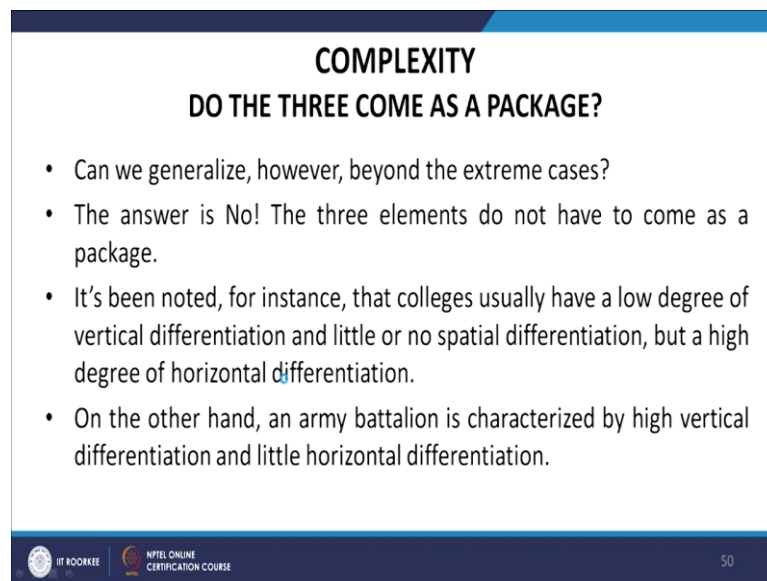
- What, if any, relationship is there among the three elements of horizontal, vertical, and spatial differentiation?
- At the extreme ranges of organization size, you would expect a high intercorrelation.
- BSNL, NTPC, The Indian Post, and most of the diversified industrial or government organizations with which you are familiar rate high on all three elements.
- Moe's Dry Cleaning, a small shop made up of only Moe and his wife, is low on all three.

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Now, how do the three come as a package? What, if any, relationship is there among the three elements of horizontal, vertical, and spatial differentiation? At the extreme ranges of organization size, we would expect a high intercorrelation. BSNL, NTPC, The India Post, and most of the diversified industrial or government organizations with which you are familiar rate high on all three elements. Moe's Dry Cleaning, a small shop made up of only Moe and his wife, is low on all three.

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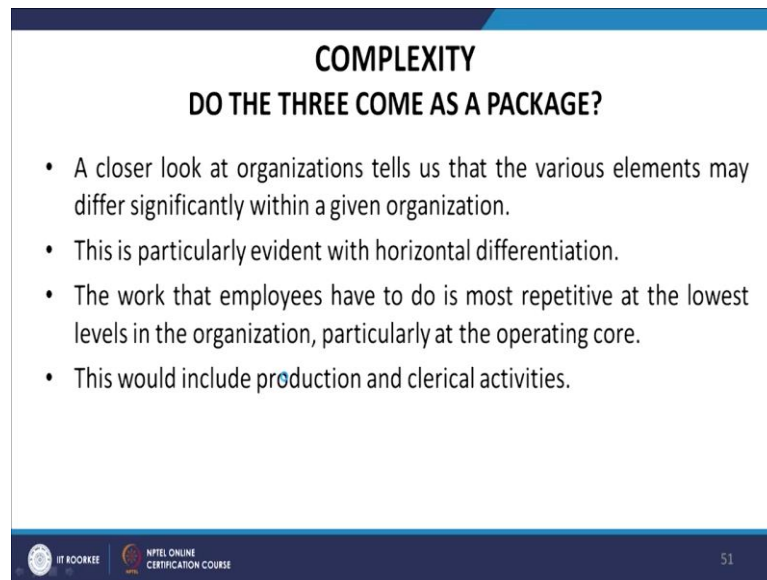
COMPLEXITY
DO THE THREE COME AS A PACKAGE?

- Can we generalize, however, beyond the extreme cases?
- The answer is No! The three elements do not have to come as a package.
- It's been noted, for instance, that colleges usually have a low degree of vertical differentiation and little or no spatial differentiation, but a high degree of horizontal differentiation.
- On the other hand, an army battalion is characterized by high vertical differentiation and little horizontal differentiation.

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Can we generalize, however, beyond that extreme cases? The answer is no. The three elements do not have to come as a package. It has been noted, for instance, that colleges usually have a low degree of vertical differentiation and little or no spatial differentiation, but a high degree of horizontal differentiation. On the other hand, an army battalion is categorized by high vertical differentiation and little horizontal differentiation.

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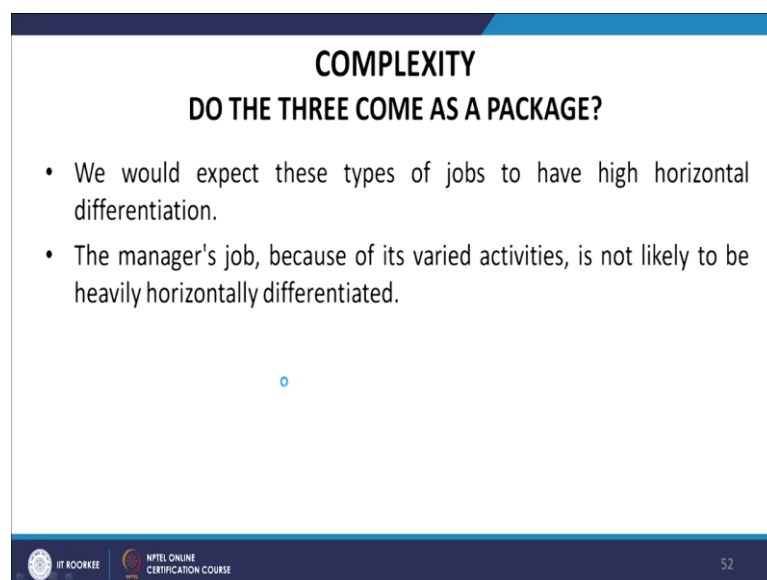
COMPLEXITY
DO THE THREE COME AS A PACKAGE?

- A closer look at organizations tells us that the various elements may differ significantly within a given organization.
- This is particularly evident with horizontal differentiation.
- The work that employees have to do is most repetitive at the lowest levels in the organization, particularly at the operating core.
- This would include production and clerical activities.

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A closer look at organizations tells us that the various elements may differ significantly within a given organization. This is particularly evident with horizontal differentiation. The work that employees have to do is most repetitive at the lowest levels in the organization, particularly at the operating core. This would include production and clerical activities.

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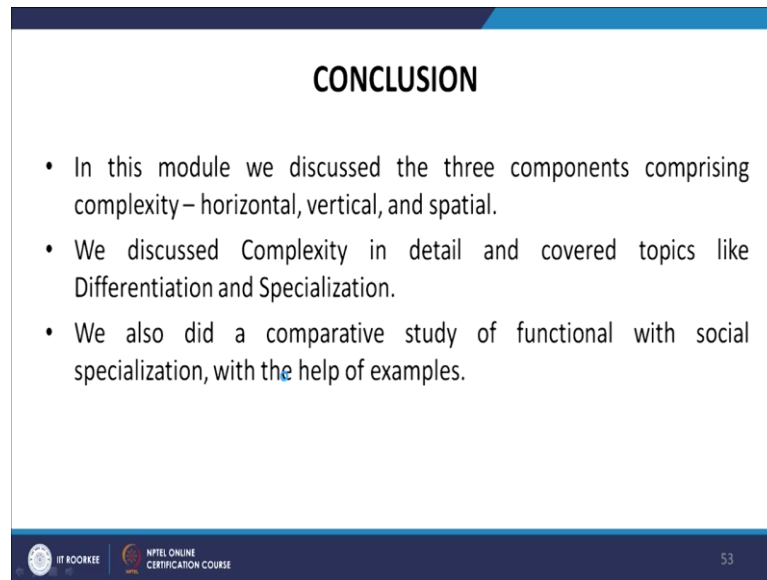
COMPLEXITY
DO THE THREE COME AS A PACKAGE?

- We would expect these types of jobs to have high horizontal differentiation.
- The manager's job, because of its varied activities, is not likely to be heavily horizontally differentiated.

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We would expect these types of jobs to have high horizontal differentiation. The manager's job because of its varied activities, is not likely to be heavily horizontally differentiated.

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CONCLUSION

- In this module we discussed the three components comprising complexity– horizontal, vertical, and spatial.
- We discussed Complexity in detail and covered topics like Differentiation and Specialization.
- We also did a comparative study of functional with social specialization, with the help of examples.

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So, to conclude, in this module, we discussed the three components comprising complexity, and they are horizontal, vertical and spatial. We discussed complexity in detail and covered topics like differentiation and specialization. We also did a comparative study of functional with social specialization, with the help of examples.

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And these are the four books from which the material for this module was used.

Thank you.