Management Information System
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Module – 01
Week – 07
Lecture - 30
Information Systems (IS) Strategy

Hi, welcome to the 1st module of the 7th week related to our course on "Management Information Systems"! Today's subject topic is 'information systems strategy'.

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So, before we dive into the details of information systems strategy, it is essential, to know what is meant by a strategy. A strategy is commonly understood to be a long term action plans, action plans that have got a long term effect and depending on the context, this long term can be 3 years, 5 years, but since information technology is a rapidly changing field in here when we talk about information technology strategy, we refer to action plan spanning over say more than one year. It is between say 2 to 3 years.

So, what is a strategy? A strategy is a coordinated set of actions to fulfill objectives, purposes and goals and in the field of business management, we are basically referring to fulfilment of objectives, purposes and goals of a business enterprise or a firm.

So, the essence of a business strategy is setting limits on what the business will seek to accomplish. A business strategy is a plan articulating where a business fix to go and how it expects to go there. A business strategy is also a vehicle or a means by which a business enterprise communicates its objectives and goals.

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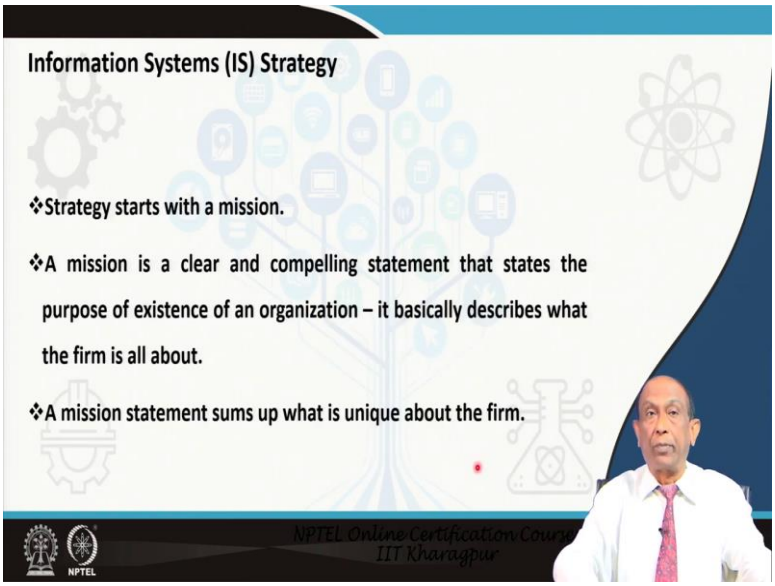

So, every strategy starts with a mission and for a business enterprise, this mission basically refers to the very purpose of existence of that business. In common parlance, a mission is a clear and compelling statement that states the purpose of existence of an organization.

It basically describes what the organization is all about. A mission statement reflects what is unique about a particular organization or a firm, how it is different from its competitors or rivals.

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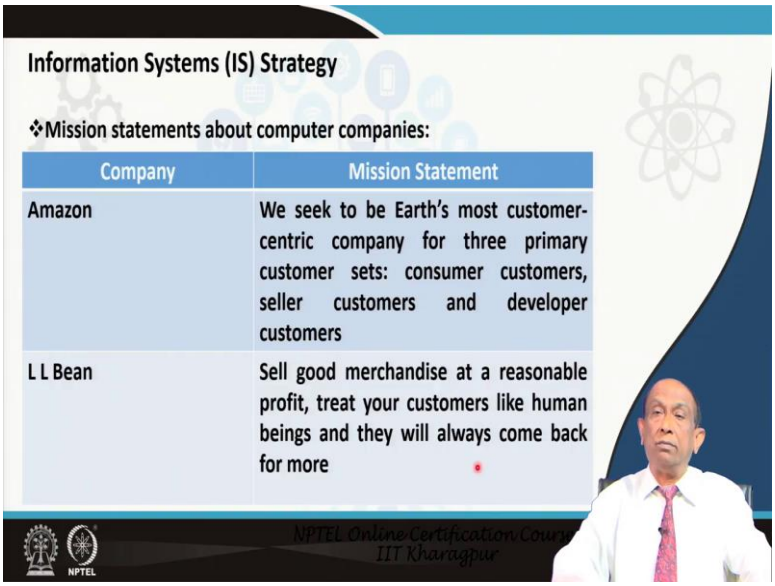

If you look at the mission statements of some computer companies for example, Amazon, let us see what that mission statement is; we seek to be the earth's most customer centric company; mind the term, most customer centric company.

So, basically it indicates responsiveness for three primary customer sets; consumer, customers, seller customer and developer customers [FL] customer centricity is at the core reflecting the purpose of existence of Amazon. Let us look at the mission statement of LL Bean. Sell good merchandise at a reasonable profit.

So profit is not the be all and end all of this company, they want to make reasonable profit but the purpose of existence is to treat your customers like human beings, so that they will always come back for more.

So, they want to achieve the loyalty of customers by treating them like human beings and at a same time, they want to make a reasonable profit for the growth and survival of that company. So, that is the very basic purpose of LL Bean which is getting reflected through their mission statement.

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So, management of a company constructs their strategic plan in response to market forces, customer demands and organizational capabilities. Some markets such as those faced by manufacturers of laptop, computers and say issue of credit cards are characterized by many competitors and the high level of competition, such that product differentiation becomes increasingly difficult.

So, scanning the environment, trying to identify the factors that will play a very important role in achieving the goals of the organization is very-very important when you frame a strategy.

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Other markets such as those for say airlines and automobiles, they are also there is lot of competition but in here it is easy to establish product differentiation. In here customer demands, comprise the wants and needs of the individuals and companies who purchase the products and services available in the marketplace. And while framing strategies there is another thing that needs to be taken into consideration is the capability of the organization.

Organizational capabilities include the skills and experience that gives the corporation a currency that adds value in the market place, is you know strategy is all about deriving some competitive advantage to try to companies try to find out in what way they are different from their rivals, what are those things that they can do much better than their competitors. And capitalising on that strength, they try to frame their objectives, set their goals and lay down action plans through which those objectives and goals can be met.

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Normally information systems they play a very important role in achieving a company's strategic objectives. At the same time since we had discussing the topic of information systems strategy sometimes people also understand that what are the long term action plans formulated and adopted by the information technology function because IT is also a function.

If you look at the value chain, information technology is a supporting activity sometimes known as a secondary activity which supports primary activities for fulfilment of strategy goals of the company, but then every such supporting function they also need to formulate their action plans over a long period of time.

Information systems strategy sometimes referred to those action plans which are formulated and deployed by that function in order to support these strategies of other related function with the overall objective of seeing that the company's objectives and goals are met.

That means, the business strategy of an enterprise and the strategy adopted by the information technology function should be consistent. The strategy adopted by the informations technology department or function must support the business strategy as well as the information technology strategy; must be such that it will enable the achievement of other functional objectives.

Now, let us look at the different kinds of strategies which are formulated by a business enterprise taking the help of information systems. So, first thing that we look at is a low cost leadership strategy.

Organizations they need to reduce their operational costs, so as to deliver their products and services to the customer at the best possible price which is basically optimum price subject to the constraints within which the companies need to operate and information systems, they play an important role in managing the operational cost of an organization. They help the organization to keep their operating costs at a minimum level.

So, the strategies that must be adopted by the information technology department or function in terms of buying the right kind of servers in kinds of providing the organization with the appropriate network infrastructure, storage infrastructure, backup infrastructure. The plans required for disaster recovery, all these together reflect the strategy or the action plans that information technology must deploy such that the organizational strategy is achieved or fulfilled.

So, when the organization its following the low cost leadership strategy information technology function must support the organization in terms of minimising their operational cost and so, the it infrastructure must be designed and maintained in such a way that objective is fulfilled.

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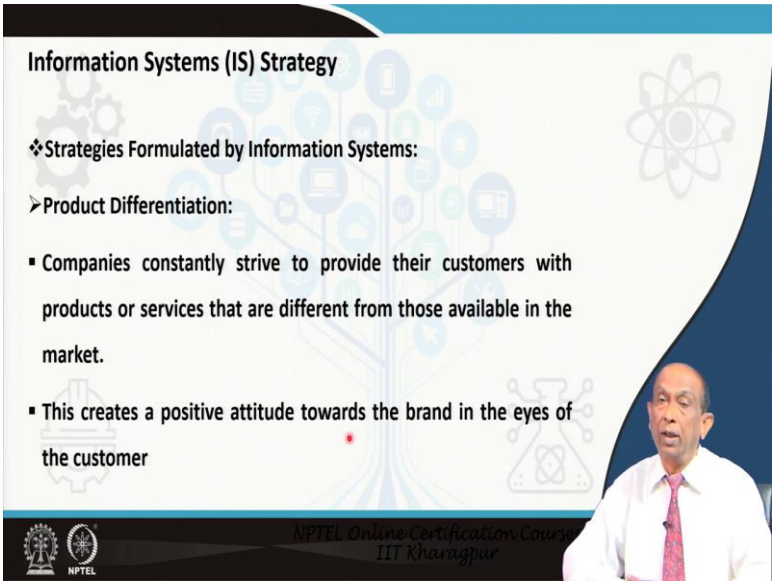

Another commonly adopted strategy is by business enterprises. It is product differentiation companies. They try to deliver, manufacture and deliver products and services which have unique or which are different from the products and services delivered by their competitors.

Companies they constantly strive to provide their customers with products or services that are different from those available in the market. This creates a positive attitude towards that particular brand in the eyes of the customer; and in here, information systems should be designed and deployed in such a manner that it helps the organization to differentiate their products and services to establish a brand image which is unique from the customers' perspective.

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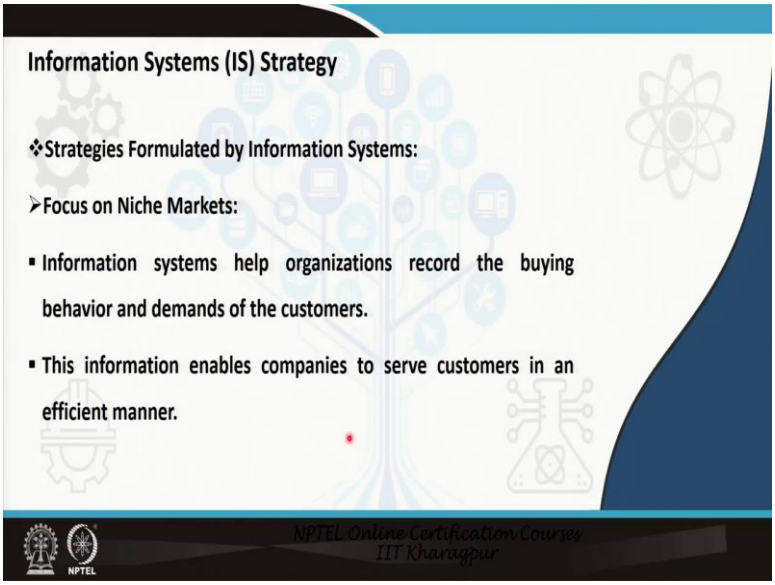

The third strategic approach commonly adopted by business enterprises is to concentrate on specific market segments and that strategic approach is known as focus on niche markets companies. They do not want to satisfy and deliver services to each and every customer or they do not want to provide services to the entire market.

A particular segment is their focus and information systems help the organisations record their needs, the demands and the buying behaviour of the customers in that particular segment where it wants to serve. This kind of information related to the demands or the needs of the customer enables companies to serve customers in an efficient manner.

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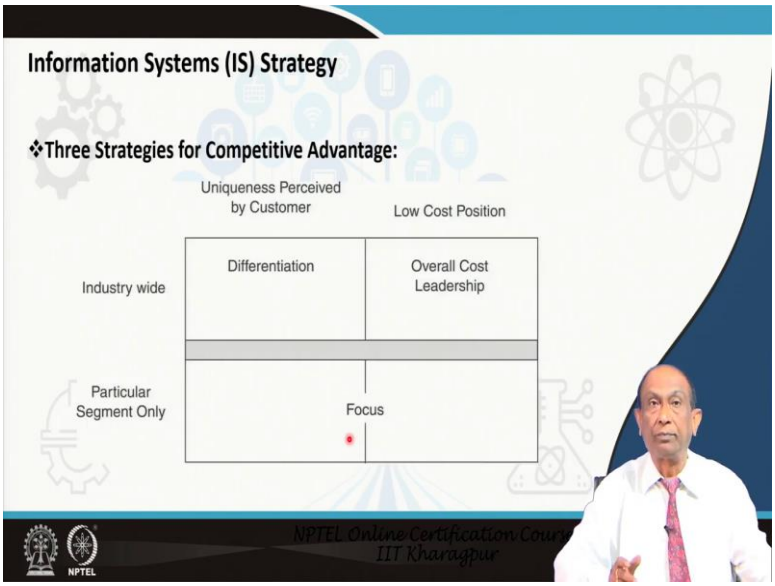

So, you see uniqueness perceived by customer that is differentiation strategy, low cost production strategies, overall cost leadership and when we are focusing on a particular segment that is the focus on niche market.

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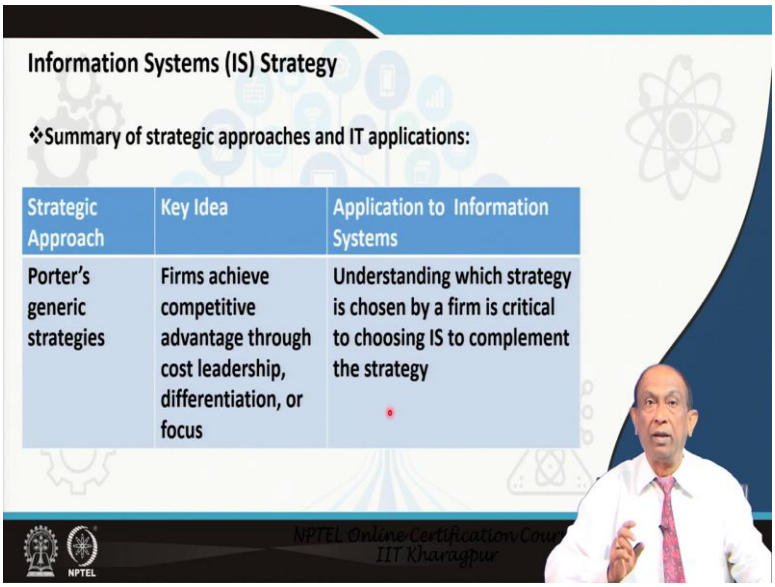

So, if we summarise the strategic approaches, we find that firms achieve competitive advantage through cost leadership differentiation or focus and understanding which strategy is chosen by a firm is critical to choosing information systems to complement and support that strategy.

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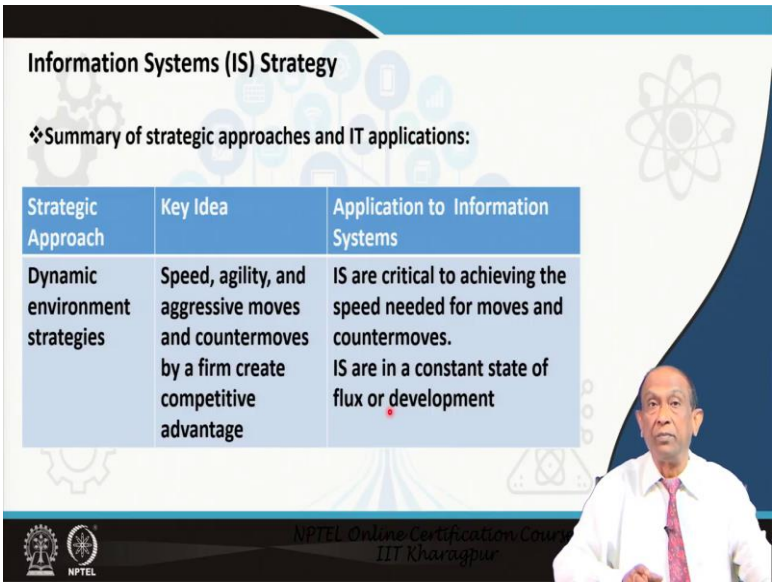

Sometimes the strategic approach maybe dynamic environment strategies where speed, agility and aggressive moves and customer moves by a firm create competitive advantage.

Information systems are critical to achieving the speed needed for moves and counter moves. In here information systems are in a constant state of flux or development. Accordingly the action plans deployed by the information systems department must match those requirements.

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So, information systems strategy is the plan an organization uses to provide information services. Information system strategy allows a company to implement its business strategy. In information system strategy, the deployment plan for the required technology to support the business needs is documented and then subsequently deployed.

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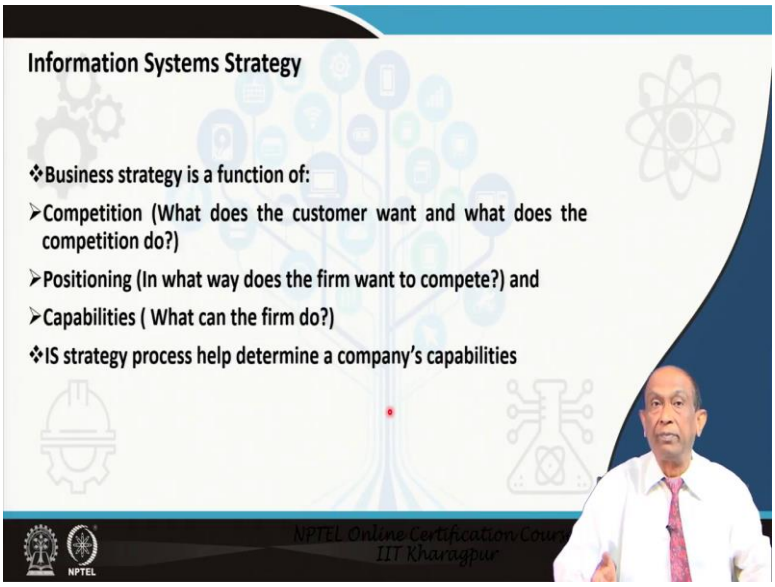

So, business strategy is the function of competition means what does the customer want and what a competitors are doing in order to fulfil those needs, how do I position my company, in what way my company wants to compete in the market, what are my capabilities. And information systems strategy the processes help determine the capabilities that a company has got.

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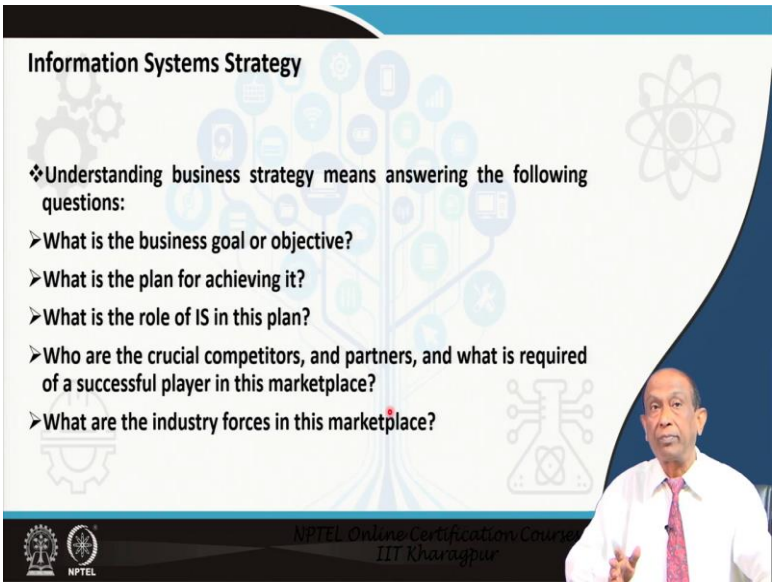

If another information technology manager one wants to understand the business strategy, he has to answer, he is to find the answer to the questions. What is the business goal or objective, what is the company's plan for achieving it, what is the role of information systems in this plan, who are the crucial competitors and partners and what is required of a successful player in this market place and what are the industry forces influencing this marketplace.

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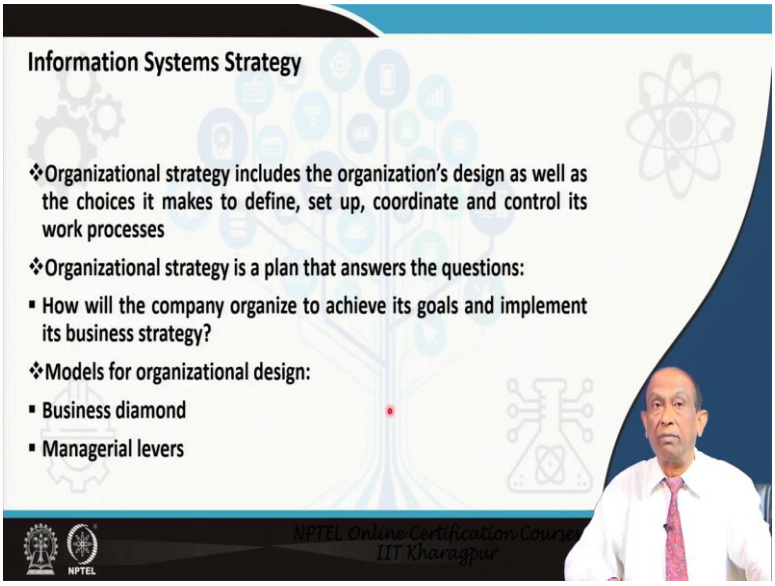

Organizational strategy is also very important. The design of the organization, the structure of the organization plays a very important role in shaping and helping the organization to achieve its business strategy and IS plays a very important role in enabling the organization structure and successful achievement of the organizational strategy.

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So, there are various frameworks related to organizational strategy. One is business diamond. Using information systems in an organization will affect each of these components of this organizational framework related to organization design, people, structure, tasks and information control.

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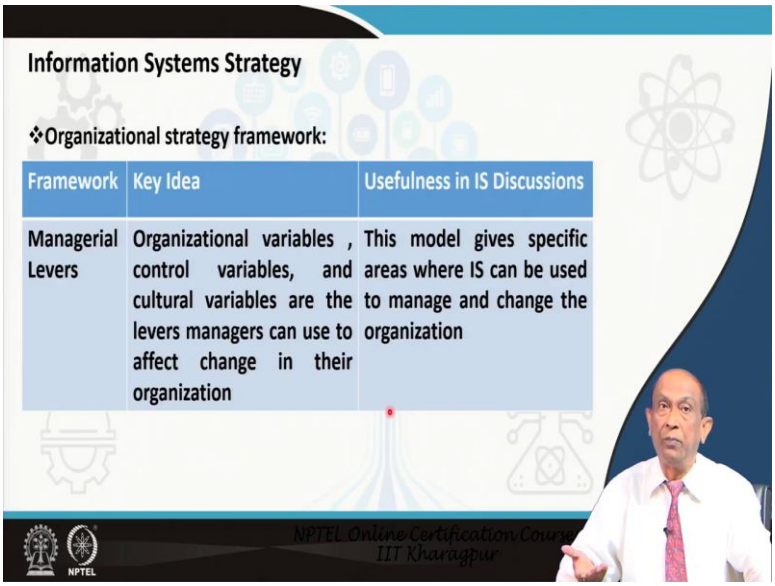

And there can be another framework for organizational strategy which is solely dependent on managerial leavers. The organizational variables in her are the control variables and the cultural variables and this model gives specific areas where information systems can be used to manage and change an organization.

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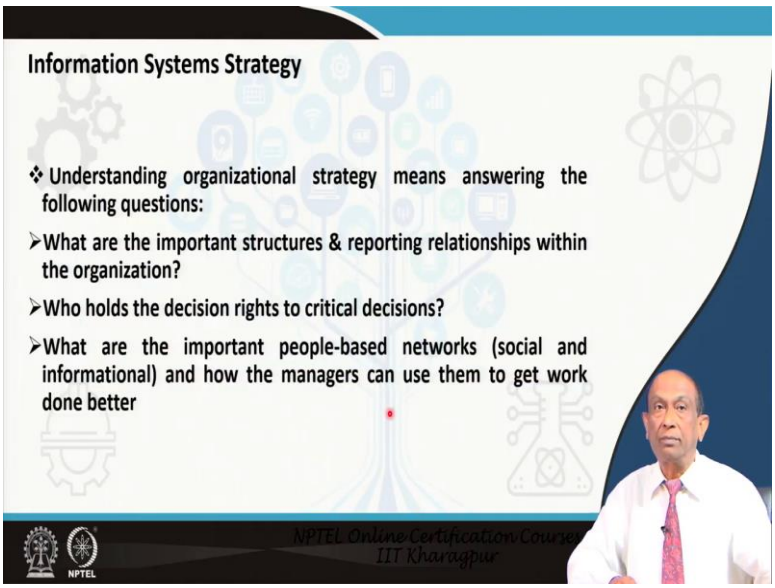

Understanding organization strategy means answering questions like say who holds the decision rights to critical decisions, what are the important people based networks and

how the managers can use them to get to their work done in a much better manner and information systems strategy can help achieve organizational strategy.

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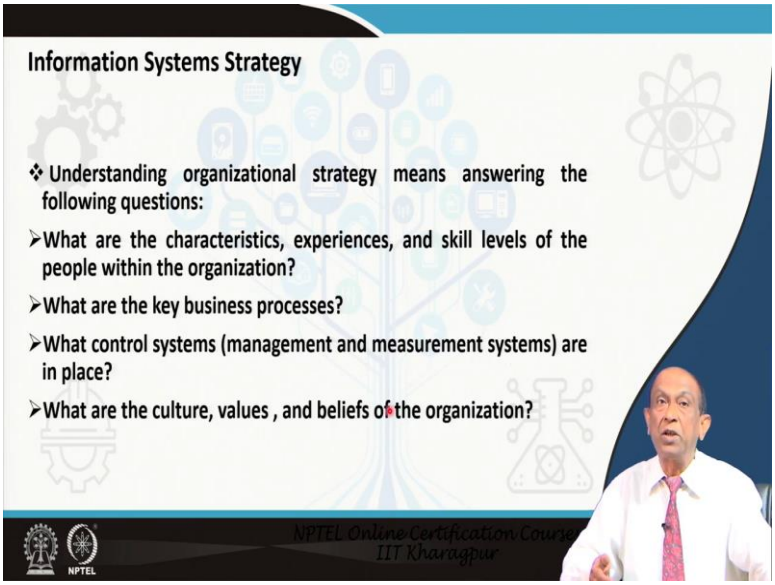

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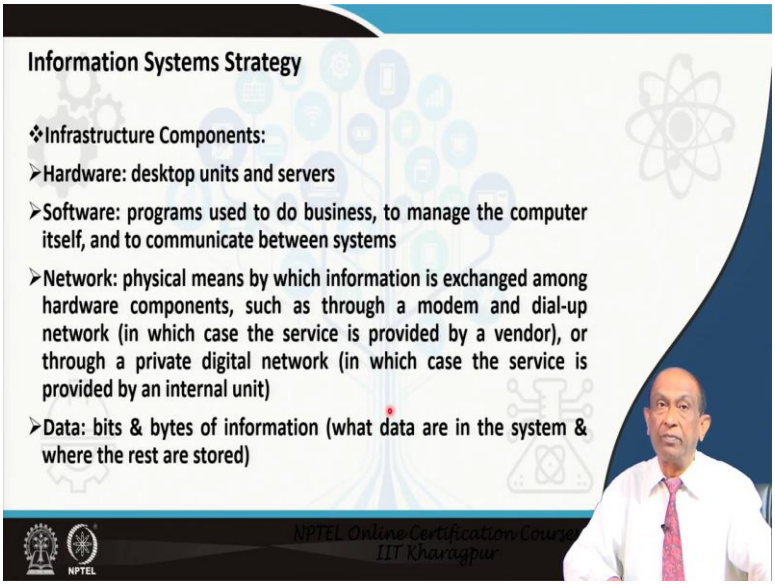

When we look at information systems strategy, we need to see: what are the action plans that can be designed and deployed related to hardware; what kind of desktop units and servers are required which we found out as part of that strategy? With respect to software we need to find out what kind of software programmes need to be developed and put in place, so that the business can operate efficiently and effectively.

So, technology is a very important thing and the we need to find out as part of that IS strategy not only the programmes used to do business, but also what are the software needed to manage the computer itself, what are the software required for communication between systems, what should be the level of response that must be provided when you think about the networks infrastructure.

We basically refer to the physical means by which information is exchanged among hardware components. For example, through a modem or a dial up network or a private digital network what should be the architecture, the design of the network is a part of information systems strategy.

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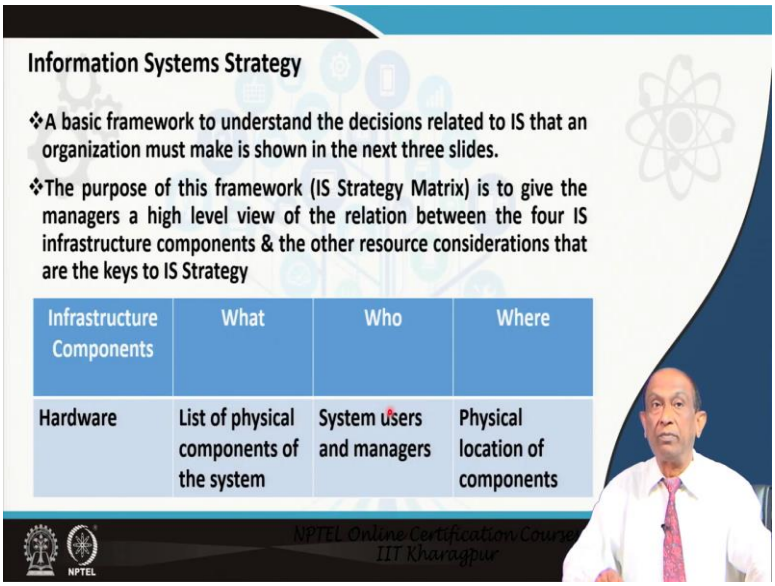

So, information systems strategy the basic framework to understand the decisions related to information systems that an organization must make and the purpose of this framework is to give the managers a high level view of the relation between the four IS infrastructure components and other resource considerations that are the keys to information systems strategy.

For example, with respect to hardware which basically it means the list of physical components of the systems. They need to find out who are the system users and managers. As part of the strategy, they need to identify the location of the all these physical components.

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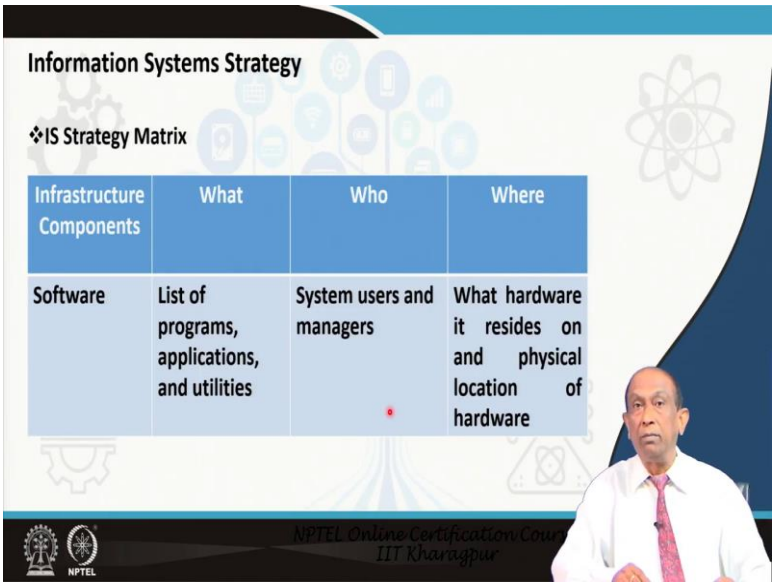

In terms of software, they need to find out the appropriate hardware over which the software can be run. The physical location of the hardware needs to be determined. It also needs to know the list of programmes, applications and utilities that is also a part of the information system strategy.

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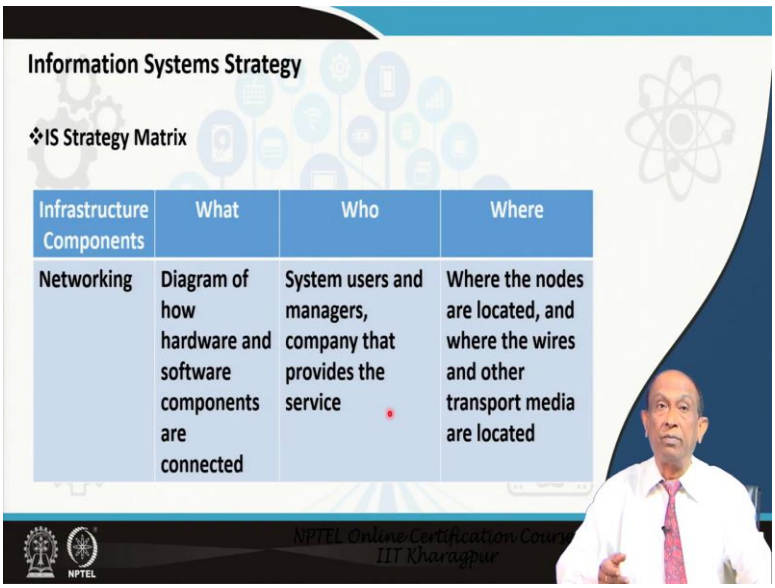

In terms of networking, the strategy should find out where the nodes should be located and where the wires and other transport media should be located. They need to formulate a diagram of how hardware and software components need to be connected.

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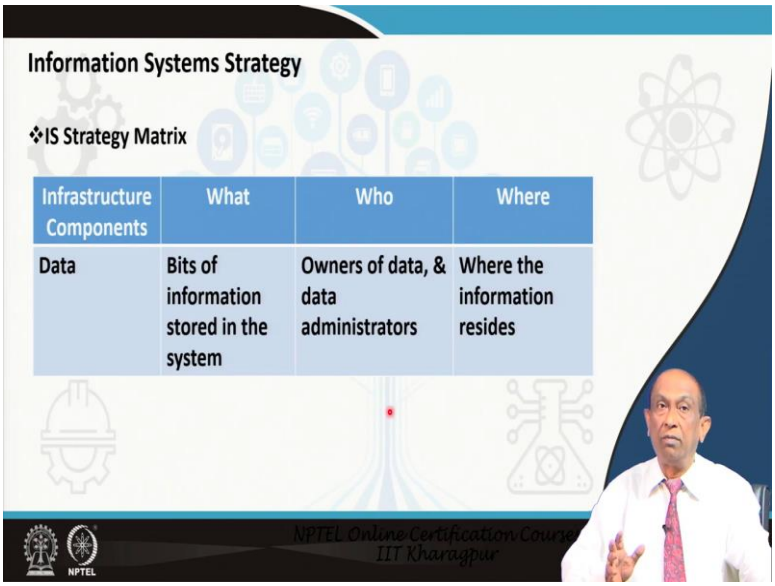

And in terms of data who are the owners of data, how the data administration should take place, what should be the data volume, all these things need to be known in order to formulate the right kind of information system strategy.

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Then organizational systems strategy and information systems strategy must complement each other. They must be designed, so that they support rather than hinder each other and this is not only true for IS strategy and organizational strategy, IS strategy should support

each and every functional strategy, otherwise imbalance will be created in the organization.

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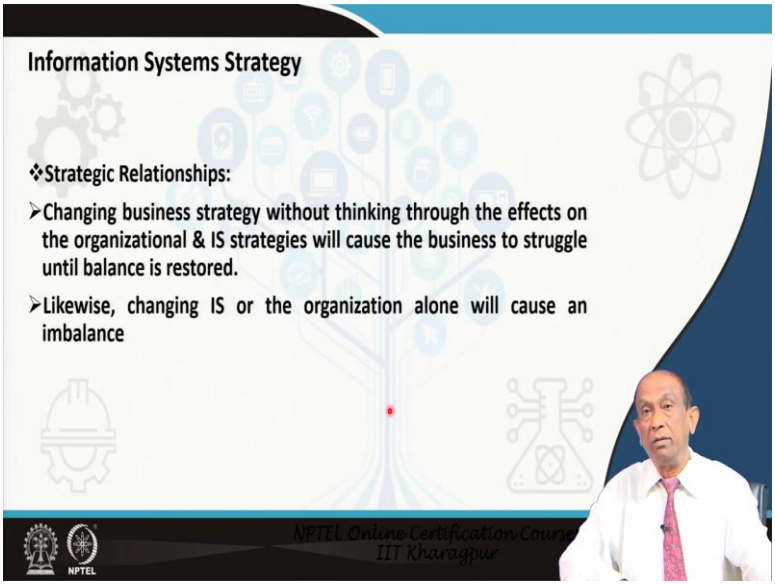

These are the references that have been used to prepare this particular module.

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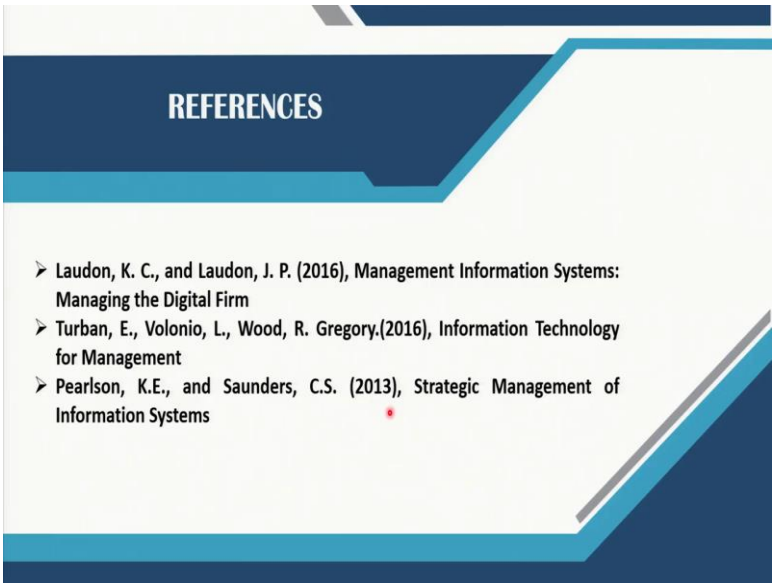

Thank you all for your patience!