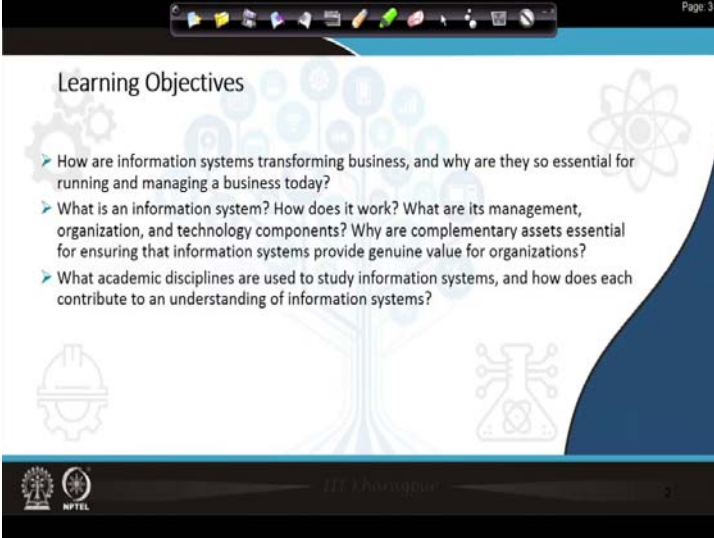


Management Information System
Prof. Surojit Mukherjee
Vinod Gupta School of Management
Indian Institute of Technology, Kharagpur

Week - 01
Introduction to MIS
Lecture - 02
Introduction - Part 2 of 2

Hello everybody. Welcome back. So, we will do the Part 2 of the Introduction section of this course.

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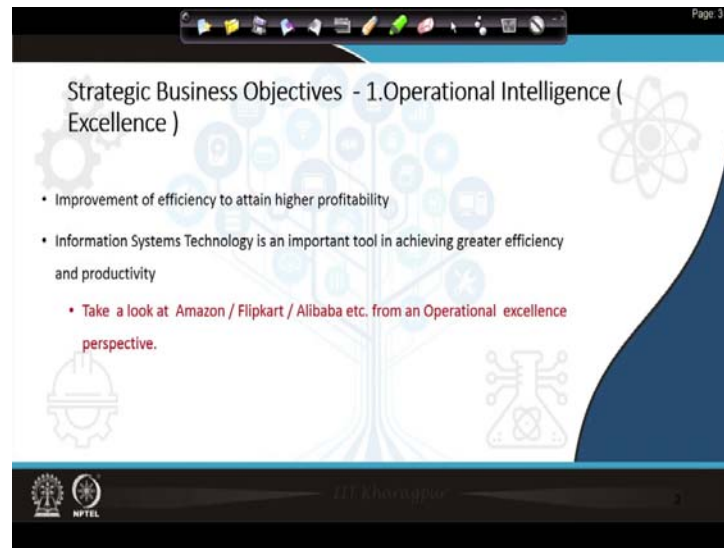
Learning Objectives

- How are information systems transforming business, and why are they so essential for running and managing a business today?
- What is an information system? How does it work? What are its management, organization, and technology components? Why are complementary assets essential for ensuring that information systems provide genuine value for organizations?
- What academic disciplines are used to study information systems, and how does each contribute to an understanding of information systems?

NPTEL

So, this we have covered, and so we will skip.

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Now, as I told in last session that we will be discussing strategic business objectives, the 6 business objectives which I had mentioned. Operational intelligence excellence is the first one.

Improvement of efficiency to attain higher profitability; is very ok, logical and very understandable that improving of efficiency is required to attain higher profitability. And information systems technology is an important tool in achieving greater efficiency and productivity. So, why do we use MIS? Because it is an important tool in achieving greater efficiency and productivity.

Now, take a look at some of the use cases and case studies for example, Amazon, Flipkart, Alibaba, etcetera from an operational excellence perspective. I mean they are very efficient as you know.

You place an order it takes just few minutes. You save the selected item and put it in the cart, pay the money and then they tell you, you will get it in 3 days. And you get it in 3 days, it comes and then you accept the product or even if you want to send it back or return, etc. So, the whole thing is operationally very smooth and you know we call this as operational excellence.

Now, how do they do it? They do it basically because they have got an excellent information system at the backend and that is how they get all the information. So, from

starting from the time you start searching for a product, they are recording everything, all your clicks, etcetera, which type of product you are searching . So accordingly they will advertise and push advertisement etcetera. And then when you put in cart and then they will give you certain offers like Amazon prime etcetera, and you accept, not accept, you place order. They get the money, you use credit card, UPI or whatever.

But the whole thing I mean it just goes on in a jiffy to really say that and you do not feel anything. Sitting in your room ,in your home, you can buy virtually anything and it comes in the time whatever the time they promise it comes, 7 days, 7 days, 3 day,s 3 days. And then they say there is a pick up for return in 2 days, they come and pick up in 2 days in case you reject the item.

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Strategic Business Objectives – 2. New Products, Services, and Business Models

- Business model: describes how company produces, delivers, and sells product or service to create wealth (Uber / Airbnb / Amazon)
- Information systems and technology is a major enabling tool for new products, services, business models
 - Examples: Apple's iPad, Google's Android OS, and Netflix

Class Q - (What is IT's role in development of Electric / Hybrid cars / Green technologies like Wind and Solar power generation ?)

So, that is what information system is working behind because it is not possible for human beings to monitor you know when so many thousands or lakhs of people are placing orders with so many lakhs of sellers and obviously, it cannot be controlled by human beings over phone etcetera. So, it has to be all managed through information system using computers and softwares and technology. And that is what information system is all about.

Now, another objective was new product services and business models. So, business models we have described. We are talking about Uber, Airbnb, Amazons, the new things which have come up. The retail industry is completely shaken up by Amazon. Your Uber

and Airbnb will frequently talk similar things we know about the taxi service and the hotel service, etcetera.

But these are the most successful two companies which have really again shaken up the entire business model. And Amazon, Flipkart, Alibaba etcetera, we know how they are impacting the entire retail business. I mean so we do not, nowadays go to a shop. This is not required. I can just order.

Even in the time of for example, corona when you are supposed to stay at home, no problem. So, we could order grocery and stuff like that and it was delivered to home, without a problem. So, we can solve so many things with such technology.

So, information systems and technology is a major enabling tool for new products and service business models. So, we call it as an enabler. So, because there is MIS, they could deliver this, do this business. How Amazon is being able to run their business? Because they are depending heavily on their information system. Without information system you cannot run such digital business. So, you need that environment, the digital ecosystem, the digital platform and the digital mind set and now the digital culture to run such companies.

Examples are say iPad, Google's Android OS and Netflix. So, these are all you know is giving you so much power from your phone which is android driven or iOS driven or whatever. Let us take android; I mean you can do so many things from your phone set. So, it is as simple as that. With your simple phone set you can do, you know, so many activities. All your apps are here in your phone. So, that is the power which information system is giving you.

The class question to you is - What is IT's role in development of electric or hybrid cars or green technologies like Wind and Solar power generation? You can look into the internet and find out. Read more about it because we are not talking this technology in the class but we are talking about Airbnb, Uber, Amazon.

On your own you should also look into lot things like electric cars, which is coming in a big way because of environment reasons and so many things, hybrid cars. Then the green technology, we are talking about alternate sources of power, renewable sources of power because we do not like things like coal and you know because they are damaging our

environment. So, we need clean powers wind and solar. How information system is also helping in such technologies? (Reading assignment)

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Strategic Business Objectives – 3. Customer and Supplier Intimacy

- Serving customers well leads them to return, increasing revenue and profits
 - Example: High-end hotels that use computers to track customer preferences and then monitor and customize the environment
- Intimacy with suppliers allows them to provide vital inputs, which lowers costs

Class Q – (Online sites achieving a high degree of Customer intimacy – Amazon / Swiggy etc. How are they doing this ?)

So, this I will give you as a homework, self-study. You will find some lot of interesting things which is happening in these industry sectors as well.

Now, customer and supplier intimacy. Customer is of course, as we say is a most important component of a business because if you do not have a customer you do not have a business, very simple. So, serving customers well leads them to return , thus increasing revenue and profits. You want a customer to come back, right, so if I have sold him or given a service you expect that he will come back because he has either liked my product or he has liked my service.

So, what is happening? And, example is that in high-end hotels. This is a very interesting example that use computers to track customer's preferences and then monitor and customize the environment. See, even when you do any web surfing somewhere your data is getting collected by somebody, that is why we say this nowadays there is no privacy. Everything we are doing on the web is getting captured somewhere as a data may be by Amazon, may be by Google or somebody.

Similarly, when you visit a hotel, you stay in hotel, hotel business traveler, I mean he has preferences, what he is ordering, what he is liking, etcetera, is being captured through

cameras etcetera and these phone calls and then he is ordering food etcetera. What type of food he is ordering gets recorded.

Now, all that information is getting captured, converted into information and being informed to the management that this particular customer likes these things. So, next time when he comes, you give him proactively those things. Like in his room he likes a probably a yellow color or whatever.

So, you give him a room which has got yellow curtains sort of things like that, furnishings. So, that becomes you know pleasant surprise for him. He likes that. So, that is called customer delight.

So, what you have done with information is that I am giving you customer delight, so that that customer will become my regular customer and he will come back. So, that is what the entire business is all about; so, how can I make my customer come back. I will get a repeat business. So, that is an essence of a successful business model.

Now, intimacy with suppliers and this allows them to provide vital inputs which lower cost. Like you know say Maruti for example, making cars. There lot of things are supplied by the vendors. And the Maruti purchase people , the vendor department they work very closely with the suppliers, so that you know, when you develop new technology, you develop new product and they ensure you that they give you good quality because you trust them.

So, you work with them, you help them, you solve their problem, go to their shop floor find out what is the problem because end of the day you want that the product they supply, the components they supply for your car should be defect free because if their components are good quality your car will be of good quality.

If their components are of not so good quality and you put it in your car after some time that car will have problem. The gear box will have a problem, or the battery will have a problem something like that and your customer will complain that your car is not good. But finally, you know you do not make as the battery was made by somebody else.

So, what you need to ensure that your battery supplier, your component supplier is your partner. He is not just a supplier, he is your partner. He is with you. So, finally, the quality of a product depends on the quality of all the individual components put together.

See, anyone of them becomes defective your car will have a problem (Refer Time: 08:58). So, that is where supply intimacy constitute so importance and that is where again information system helps because you need information about what is happening at the suppliers end. You need to know these information then you can go out proactively to help him.

So, another question for your study. Online sites achieving a high degree of customer intimacy Amazon, Swiggy, for example. How are they doing this? We keep ordering the food on home delivery for Swiggy. We like Swiggy. Why? What are they doing? How are they achieving? This customer awareness tells them that the customer likes Swiggy.

So, we do not think of any other competitors. So, blindly any time I want to order food, I order on Swiggy. Similarly, when to buy something I go to Amazon or somebody goes to Flipkart. So, how they develop this customer intimacy?

Read about that, find out the very interesting things to read and you will like them. It is too long to discuss in this class. So, do some own reading there are plenty of material available find out how the business model evolved, how they are working, how they are being successful etcetera, etcetera. Very interesting stuff, and it can give you lot of ideas you know how in the present days a different type of business models are being developed by smart people.

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Strategic Business Objectives 4. Improved Decision Making

- **Without accurate information:**
 - Managers must use forecasts, best guesses, luck
 - Results in:
 - Overproduction, underproduction
 - Misallocation of resources
 - Poor response times
 - Poor outcomes raise costs, lose customers

Improved decision making: Of course, it is obvious because without accurate information, managers must use forecasts, best guess, luck etcetera, because you need information. Like, a manager I had said right in the beginning without information , one cannot take a decision.

So, obviously, to improve decision making you need better quality of information. So, your quality of data and the quality of information should be better, so that you can take proper decision in your business operations because a decision making can result in over production or under production.

As I told you it could be a, right decision or it could be a wrong decision, mis-allocation of resources, poor response times, these are what inefficient things can happen without an accurate information. If your information quality is not good then you can do mistakes. Your decisions may not be the best decision.

So, when you do not take a best decision means things can happen, you can be doing misallocation of resources, you can make a loss, etcetera, and poor outcomes you know raise cost , lose customers, etcetera. So, all the negative things and bad things of a business happen without an accurate information. So that is why it is so important to have accurate information which you need for high quality decision making.

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Strategic Business Objectives 5. Competitive Advantage

- Delivering better performance
- Charging less for superior products
- Responding to customers and suppliers in real time
- Examples: Apple, Walmart, UPS, Airbnb, Uber, OYO

Competitive advantage: Delivering better performance obviously, I mean you have to keep on improving day on day, otherwise your competitor will catch up and sometimes you will find that you are losing out. So, we have to keep on improving our performance. We have to keep on improving every day, every month and we have to come up with new products etcetera, etcetera.

Charging less for superior products, so making it cost competitive. So, nowadays people customers are very price conscious. So, they always look out for discounts. You also know that we look out for discounts when we go to Amazon and Flipkart. We go on studying who gives a discount etcetera. We are always looking for discounts. We are very price conscious and price sensitive. So, that is where again you need lot of information because information will help you to you know gauge, how much discount you can give.

Responding to customers and suppliers in real time: How fast you can respond? See, customer wants the product now, so he clicks and you know it should be available: so, to say yes or no but physically you may not be there, but it has to be handled through your information system. So, you have a product catalogue. You have a product catalogue, from which the customer selects the product. If the product whether it is there in stock or not will all depend on the backbone of the information system which you have in your

organizations something called a for example, an ERP system (Enterprise Resource Planning) which we will talk about much more in details in subsequent lectures.

So, it is very important to have a backend system for getting these information. However, not today, next lecture I will talk more in details about ERP (enterprise resource planning). You can see how customer responses is such a vital thing and is being handled by a software product which is a very essential part of information system, a very core of information system.

So, competitive advantage examples again Apple, Walmart, UPS, Airbnb, Uber, OYO, etcetera. Again, these names keep coming up again and again because these are the companies which have in the last few years shaken up the entire business world.

They come up with such innovative models , business model, which people never had thought about earlier, and they were the people who came up and not only did they come up they became very successful. And some of their owners have become one of the richest people in the world. Apple, and owner of Alibaba (Jack Ma) is one of the richest Chinese person in the world. And, probably in the world ranking he will be somewhere in the top 10.

They are all first generation entrepreneurs. I mean they have just started the business may be 10 years back, 15 years back, very new. Not like our companies like Tatas, etcetera which are running for almost 100 years - Birlas, Tatas. I mean. But you see these people, they are so smart, they come up with new buisness models and within few years, I mean 5 or 10 years is nothing you know when you compare to a Birla or Tata company running for about 100 years and they have reached the top.

You see, Apple is now today the most successful company in the world, and they have now working for the last 30 - 40 years. They came up with one product the iPhone and the way they went up and now their business turn-over will be some 700-800 billion dollars or almost 900 billion dollars. Walmart, is another example of such a huge super market chain.

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Strategic Business Objectives - 6.Survival

- Information technologies as necessity of business
- Governmental regulations requiring record-keeping
Examples: Toxic Substances Control Act, Sarbanes-Oxley Act
Compliances – Financial , Statutory , Environmental , Income-Tax ,
GST records etc.
- Current Pandemic situations forcing Organizations to work differently (e.g Working from Home)

Now, the last one is survival; information technology as necessity of business. I mean without information technology business will not survive that is for sure, very simple.

Governmental regulations requiring record-keeping: Say examples like Toxic Substance Control Act, Sarbanes-Oxley Act. There are lot of compliances, we know financial, statutory, environmental, income tax, GST records, say everywhere it is information and without this information, I mean you know the business cannot run.

The whole government machinery, the tax collection, GST everything runs on computer systems, i.e. information system, otherwise it is not manually possible for such a big country with so large population to run its policy and decision affairs. So, that is a part of survival. So, any organization, any complex thing to run, you have to have a information system, without that you cannot run a large complex organization, be it government, be it an industry, be it a service sector, anything.

Now, if we will take the current pandemic situation, it is forcing organizations to work differently, for example, working from home, to survive. I brought it here because for surviving, like our education system today, you know to complete a course today we have to take lectures from home and students will have to attend lectures from their home otherwise the semester could not be closed, the annual examinations could not be held. So, we have to work from home. So, that has become a survival issue for the entire education sector.

Similarly, in various industries people have started working from home otherwise you know the businesses will stop, people will lose their job etc. So, this has become a major problem. The solution was technology again - information system using digital tools, we get digitally connected, through videos, etcetera, and we all of are working and many industries are surviving.

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Information technology and Organizations influence one another

Following are the major influencers in an Organization.

- ✓ Structure
- ✓ Business processes
- ✓ Politics
- ✓ Culture
- ✓ Environment, and
- ✓ Management decisions

So, in next section it is about information system and organization strategy where we will talk little bit about strategy. Information technology and organizations, they influence one another. So, it is very important. I mean it is really two things they work together and the one is not complete without the other and organization without any information system or information system without an organizations. So, you need both.

Following are the major influencers in an organization. I mean what are the influencers in an organization what actually you know helps an organization run. One is a structure that every organization should have a organization structure, about the hierarchies. They must have business processes because they need to have processes to you know run their business and things cannot be arbitrary.

So, everything follows a particular method, you know step by step by step and things are done, so that is called process. So, every business also has a process. Then of course there is politics and then there is a culture. So, we say there is a culture, there is a Tatas have a good culture, this company has a bad culture, they have a very aggressive culture,

they are very passive. So, we use lot of you know terminologies and which explain what is the culture of that organization.

So, by that we get an idea, we form an idea about that organization. We form a perception about an organization; oh, it is a government organization, so they will be not so efficient; oh, it is a private sector; oh, there must be very efficient, they are very productive. It is a multinational organization; they are very profit making, etcetera, etcetera. The motivation is profit. So, we form we have perceptions based on the culture of an organizations.

Environment, of course, because everything is you know we have an environment we are all a part of the ecosystem. So, whatever we do has an impact to the environment either positive, mostly it is negative. Like we run a thermal power plant because we need power electricity obviously, we cannot do without electricity, but at the same time we are damaging the environment by pumping out lot of carbon dioxide. So, which is not good for the environment, but still we have to generate power, we cannot survive without power.

Now, and finally, management decisions: Of course, that is what the whole subject we are talking about management decisions because we need information system to take management decisions. So, that is where information system really comes in. So, these are the influencers of an organizations, so these are the elements of an organization, very important elements of organization.

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Features of an Organization

- Use of hierarchical structure
- Accountability, authority in system of impartial decision making
- Adherence to principle of efficiency
- Decision making and business processes
- Organizational politics, culture and environment
- Ethical practices

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Now, the features of an organization: If you want to now see how does a organization look like, what are the features of an organization, it will use an hierarchical structure obviously.

So, there will be at the top a managing director, then a general manager, vice presidents, then senior manager, then junior managers, then supervisors, officers, then you know work man or staff and a clerk etcetera. So, you have an organization. So, you have a hierarchical structure that is the organization.

Then accountability and authority in systems of impartial decision making: So, there is, you know, lot of decision making happening in an organization that is a how an organization works. And then for everybody taking a decision , somebody has to be accountable. If I take a decision means I am accountable for that, I am responsible for that. So, there is an authority.

You can delegate authority. So, a decision taken by the CEO, of course he is a top man of the organization, so that decision everybody has to abide by it. It is very important, as the CEO has taken the decision. But if a decision is taken by a junior manager, many may not follow that decisions, some may find it is a junior manager's decision and it can get changed or you can not follow knowing that nothing will happen etcetera, etcetera. So, there should be a system authority in the impartial decision making.

Adherence to principle of efficiency: One of the feature for any organization should be certain thing called an efficiency. So, we expect when you go into the office that my work will be done in as short a time as possible. I do not plan to spend hours in an office to get my work done.

Let it be wherever, a municipal corporation, a government office somewhere you are going to pay tax or somewhere you are going to pay your LIC premium or you have to go to police station or a hospital, anywhere you go for work or a service you expect that there will be certain amount of efficiency there.

So, that you do not have to spend unnecessary time, your time is not wasted because time is of lot of value to you. Your time is very important. So, if I go there and waste 2-3 hours I mean I do not feel good. You do not have a good opinion about that organization.

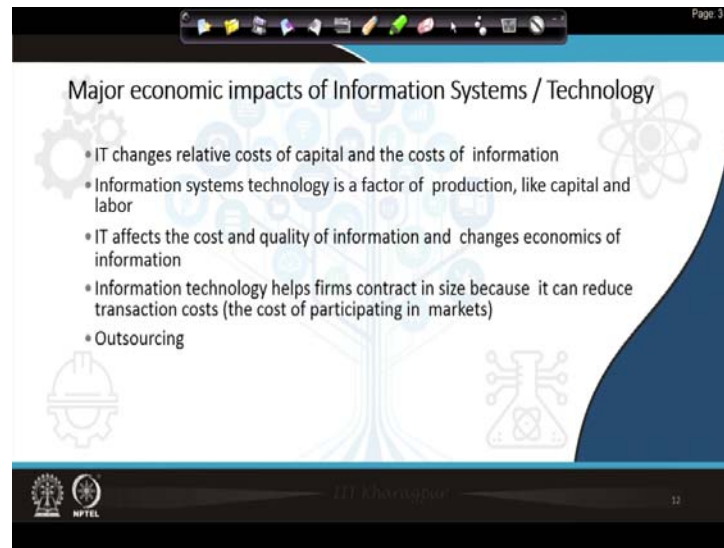
Decision making at business processes, again that is a feature of an organization. We are always talking about decision making, obviously, without a decision making an organization will not run and you need to have processes, business, processes. Organization politics, culture and environment; which we have discussed in the last slide.

And then finally, ethical practices; now that is something very important, and which we have seen many times when we open the newspaper and read about this scam, this banking scam, and somebody has taken a loan has not returned or run away from the country or doing some malpractice and giving some fraudulent product or maybe you know a copy product etcetera.

So, these are all unethical practice; and we know many imitation type of things and etcetera, duplicate products, poor quality products, even in medicine, etcetera. So, these are we say, these are the unethical practices which are been done and which we do not expect. We expect that any organization which runs should follow ethical practices.

Now, that is what we expect. But of course, there are expectations where it does not happen, so we have to be conscious. But that is what the expectation is from any organization that they should be have ethical practices.

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The major economic impacts of information system technology: The economic impacts are like it will change a relative costs of capital in the costs of information because of information system you can bring down lot of costs.

So, you can do things much more efficiently. We will discuss (Refer Time: 23:22) various sections the cost element will come up in various examples, how we can improve efficiency; whenever you improve efficiency means your cost is coming down. So, you are doing something much faster in a lesser time, so you are being more productive. So, obviously, you are producing more in less time, so that means your cost is coming down.

Information system technology is a factor of production like capital and labor. So, information system, although it is all about information, but still we say that it is a very important resource. Like in a factory you need capital you need money, right, you need labor, you need resources, you need raw material to make anything.

Similarly, you can think that you need information system, so that is also one of your resource. So, do not think that it is something like a vague, you do not see it physically – this thing referred as information system. So, it does not exist, but it does exist, and consider it as a important resource for your business. So, if you want to start a business think about information system, what information system you should have in place, so that should also come in a very early stage of business you should plan.

IT affects the cost and quality of information and changes economics of information. So, again IT improves things very fast. I can share information at a very low cost because one example is emails for example. If I send an email to 100 people it does not cost me anything very little, but if I send an envelope or a postcard or whatever another something a physical letter to 100 people it is quite expensive, not only for paper, but the postal charges.

So, over all in such it's a simple example an email, but even your telephone or your you know we do video calls virtually free, even international calls through WhatsApp, etcetera, we do not pay.

We can even do business calls using these technologies and its free. Google talk and Zoom and things like that. So, everything is becoming so cheap and we are getting so many facilities that it is changing the economics of information. Today, I can talk to somebody in US without paying anything just the internet cost that is all. If I have internet I can dial up and call, even have a video call and we have video chats virtually free.

So, information technology helps firms contract in size because it can reduce transaction cost the cost of participating in a market. So, overall whenever you have lot of good information systems practice, you can shrink the business and you may not need so many people. An example is a bank for example. Previous days you know the banks had so many people sitting in a counter, but now if you go to a bank you see very few people. Because why? It is all computerized.

So, we know that with less people, they are doing not only the same probably they are doing more work. So, that is where information system is actually helping to make firms or the business contract in size of employee numbers. So, you need less people to do more work. So, we are becoming more and more productive.

And outsourcing is another very important thing , but we will not discuss here today. We will discuss in another subsequent lecture where information system plays a big role in outsourcing.

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Organizational and Behavioral impacts

- IT flattens organizations
 - Decision making pushed to lower levels
 - Fewer management levels / managers needed (IT enables faster decision making and increases span of control)
- To days organizations
 - Organizations flatten because in post industrial societies, authority increasingly relies on knowledge and competence rather than formal positions

Organizational behavioral impacts: IT flattens organizations. So, you know the world is flat, the book I was referring to in also is mentioned in this end of this slide - Thomas Freidman, the world is flat as IT flattens the organization. Similarly IT helps to flatten organization. Decision making is pushed to lower levels. So, we need less number of levels when we are heavily dependent on IT and we do not need so many hierarchical levels.

So, with fewer management levels , managers need IT which enables faster decision making and increases span of control and we can communicate easily with so many people across the world, so that we do not need so many layers in an organization.

So, that is how a flatter organization then becomes more efficient because each level means you know it takes time. I will take a decision it will go to my next level and he will do something again then he will wait and the other person has to wait for the decision. So, it takes time, but if I have lower number of levels the decisions will move much faster. So, it becomes more efficient.

So, today's organizations, flatten because in post-industrial societies authority increasingly relies on knowledge and competence rather than formal positions. So, we need more of dependent knowledge and competence rather than you know heavy designated people like your senior vice president, vice president, and general managers.

We do not need so many positions. But because lot of information is there in the management information system itself; we do not need physically so many people.

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Organizational resistance to change...

- Information systems become bound up in organizational politics because they influence access to a key resource – **information**
- Information systems potentially change an organization's structure, culture, politics, and work
- Most common reason for failure of large projects is due to organizational and political **resistance to change**

Organizational resistance to change: This is again a very important aspect of a modern society where information system becomes bound up in organizational politics and because this influences access to a key resource that is information.

Now, there is also a resistance to change. Whenever you bring in some new technology or a new thing ,you will always find that people tend to resist a change because they are afraid of a change, that if something happens they will be impacted.

Again, the classic example was introduction of computer systems into our banks, 30 years back. So, people thought that if you introduce computers in banks people will lose jobs and many other bad things will happen.

So, there was tremendous amount of resistance in banks, but today you cannot imagine going into bank and not seeing computers. You cannot, do not even imagine, it is very difficult to imagine to going to bank which does not have a computer and not using core banking system. So, the whole perception has got changed. So, that is where information system again plays a big role and impact how this perceptions can change.

Information system potentially changes an organizations structure, culture, politics and work. So, that is what is important. When you, with the help of information system you

can potentially change an organization structure, culture, politics and the way we work because nowadays we do not have to go from office to office, person to person, table to table, desk to desk because I can do everything from my computer, sending my message, sending my chat message, sending my mail, call him also over phones, I do not have literally to move from my chair. So, that way you can extend the imagination and see we can have a virtual office.

Everybody sitting in their own house we can actually run a company nobody is going to, so we do not have to rent an office or hire a office or own a building. So, we can sit in our own house independent houses and we can interact and run a business. It is happening, plenty of business are running like that. In IT industry, this is very common, and many people do not go to the office at all.

Most common reason for failure of large projects is due to organizational and political resistance to change. So, that is one of the thing which was found out that key reason of failure for large projects is when people resist change. So, one of the example I give you over that computerization of banks, so it got delayed, but finally, it was overcome and it was done. But many time, in many cases this resistance to change is very regressive.

And it you refuse (Refer Time: 30:43) introduction of changes because for good or bad for whatever reason there could be sometimes valid reasons also that not any changes are acceptable or all changes are good, it is not that.

But definitely we need to change that is for sure because we say change is the only constant in life because in our life everything is changing. Technology is changing, because our knowledge is changing, because the situation is changing, because the scenario is changing because the environment is changing.

Today, in month of January did we ever think of a situation like this, that all of us will not be allowed to go out of our home. We cannot go out of our home or every time I go out will have to put a mask on our face. I mean, just 5 months back in January or February we never dreamt about it, but today it has become an essential part of our system that when we go out of house we put up on a mask. We try to maintain a physical distance; we are using sanitizer and washing our hand every now and then.

So, are we resisting that change? Many places you can see in newspapers in US, for example, many people are resisting this change. Even in our country you will find many markets where many people are not wearing the mask and they are also not maintaining distance and all that. That is a sign of resistance to change. I do not want to wear a mask nothing will happen to me. But we know that is not the right attitude, but it can create lot of impact if this resistance continues like this.

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So, organizational resistance to change, I mean in an organization, the overall thing works like this. So, you have technology in one side, people on the other in between the two sides is the task and the process and that is where people have to either accept the process and the task or they give that resistance to anything that changes, when a new task comes in or a new process comes in. I mean the question of resistance comes up because there will be resistance. If I ask everybody to wear a mask probably 50 percent will wear it, another 50 percent will not wear it. So, they are showing resistance to change.

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Michael Porter's Competitive Forces Model

Five competitive forces shape fate of firm

1. Traditional competitors
2. New market entrants
3. Substitute products and services
4. Customers
5. Suppliers

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What is happening you can see in US. For example, in US many people are refusing to wear masks and their cases are going up, I mean they are having a problem.

Now, the last part is Michael Porter's, we have got competitive forces model. This again very classical model in marketing etcetera. In field of marketing, 5 competitive forces are the following: traditional competitors, new market entrants, substitute products and services, customers and suppliers. So, these are the 5 forces which shape the fate of a firm. We will discuss about this later again part of this course.

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IT enabled Strategies for managing competitive forces

Michael Porter's Competitive Forces Model

- ❖ Low-cost leadership – e.g. Walmart
- ❖ Product differentiation – e.g. Apple, Google
- ❖ Focus on market niche – e.g. Uber, Airbnb
- ❖ Strengthen customer and supplier intimacy – e.g. Netflix, Amazon

1. Traditional competitors
2. New market entrants
3. Substitute products and services
4. Customers
5. Suppliers

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And here IT enabled strategies for managing competitive forces. So, this is just to show you how IT also interacts with this marketing model a typical conventional forces of Michael Porter's classical model.

See, low cost leadership example is Walmart, traditional competitors Walmart came in a big way to traditional competitors. Product differentiation example Apple and Google, new market example or new market entrants Apple and Google when they came in, they shook up everything, the whole world. Focus on market niche, Uber and Airbnb this is addressing that factor substitute products and services. So, new product and service came and the whole hotel industry and taxi industry and private business, etcetera they were taken by surprise.

Strengthen customer and supplier intimacy, this is addressing the forces of customers and suppliers, examples are again Netflix and Amazon. So, nowadays with Netflix for example, people have stopped going to movie theaters. I mean you can see all your films which you want on Netflix, Amazon prime etc. Just simply sit at home pay some annual rental and you can see any number of films on your mobile devices, on your laptop, on your TV (Refer Time: 34:27).

So, nobody will go to the Multiplexes and cinema halls. So, conventional cinema halls will probably you know lose their business in very short period of time and that is how this customer and supplier intimacy things play important role. that is where these models are bringing in intimacy level with a customers and suppliers.

Suppliers again Amazon side if you see they have this whole bunch of suppliers, selling their products through Amazon platform. So, that is the e-commerce platform. So, one side your suppliers, one side is we the customers. And Amazon is maintaining a very good intimacy relationship , so that the whole system works very smoothly. So, that is a relationship with this model Michael Porter's model.

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Internet's impact on Competitive Advantage

- ❖ Transformation, destruction, threat to some industries - e.g. travel agency, printed encyclopedia, newspaper
- ❖ Competitive forces still at work, but rivalry more intense – e.g. Booking.com
- ❖ Universal standards allow new rivals, entrants to market - e.g. Amazon competing with Microsoft & IBM with Cloud technology
- ❖ New opportunities for building brands and loyal customer bases – e.g. Uber, Airbnb

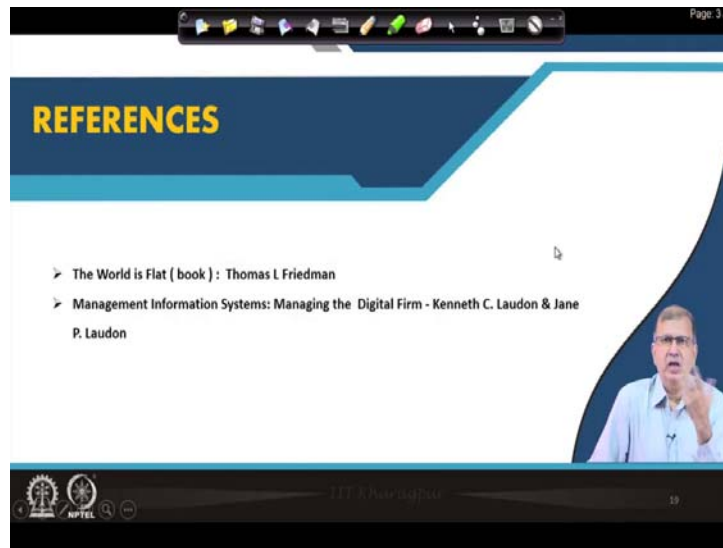
Internet's impact on competitive advantage: Transformation, destruction, threat to some industries, example travel agencies, printed encyclopedia, newspaper. This is a typically where how internet is playing a role on this competitive advantage.

Competitive forces still at work but rivalry more intense; example Booking dot com. Booking dot com is a site where you can book hotels. They will again give you a discounts, so the discount thing starts if you book a hotel through Booking dot com, you get very interesting discounts and you can book hotels anywhere in the world sitting here in India in Calcutta or wherever. So, you can book hotels through this and you do not have to talk to the hotel directly.

Universal standards allow new rival entrants to market, example Amazon competing with Microsoft and IBM with Cloud technology. So, IBM and Microsoft are technology companies they run Clouds, but Amazon who is a book seller for online selling of books and then retail, are now selling Cloud business. Now Amazon, can you imagine a company which is selling book now is selling Cloud business. So, that is how technology, internet etcetera is playing a role in changing the business environment.

New opportunities for building brands and loyal customer bases, example Uber, Airbnb. Again, as I told you Uber and Airbnb will come up very frequently because this is a classical development which really shook up everybody with their novel business models.

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So, finally, again the reference is the same two books are there. You should get this books and read yourselves.

Thank you very much.