International Business
Prof. J. K. Nayak
Department of Management Studies
Indian Institute of Technology, Roorkee

Lecture - 11
Trade and Factor Mobility, Bangladesh Textile Case

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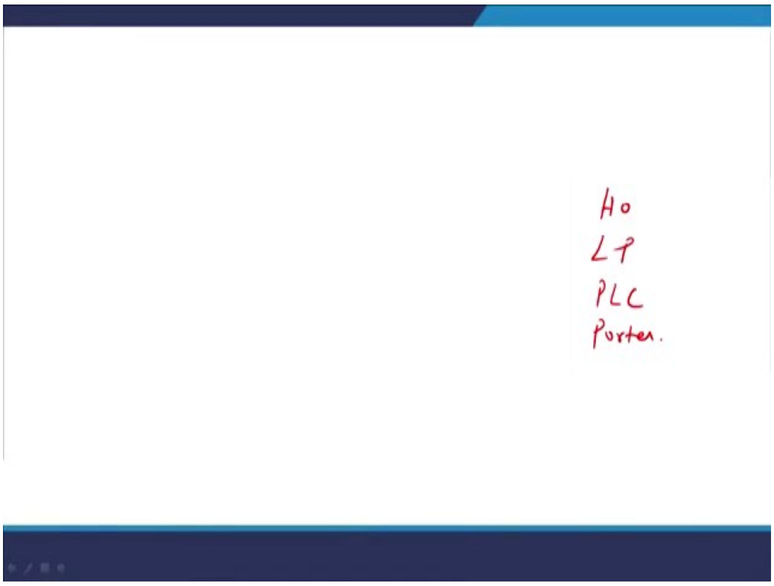

Welcome everyone, to the course of International Business. So, in the last lecture we are talking about the theoretical foundations of international trade. Where we spoke about we discussed about the things like the Heckscher-Ohlin theory right. Where it said that a country tends to or the nation tends to do in which it has the best resources.

For example, somebody with capital will tend to do more capital intensive industries, somebody with more labor will try to have more labor intensive industries like farming, agriculture etcetera. But, there was an interesting case which was which is also called as the Leontief Paradox right. So, Leontief Paradox was experimented in the case of US.

Where they interesting when where Leontief observed that, instead of you know if the US exporting capital intensive goods; it was rather exporting the labor intensive goods which would should not be happening as per the H O theory. So, this you know the reverse character, because of the reverse character it is called as the as a paradox right. And, it was importing the rather the capital intensive goods US right.

Then, we also discussed about the product life cycle theory. So, in which we said how do nations behave? How does the international trade theory? What does it say about? And how do products move? And what changes happens during the trade? Right in international trade across the product life cycle.

Finally, we spoke about the Porter's you know diamond model. So, where porter Michael Porter, the professor Michael Porter had talked about 4 different parameters; what are the 4 parameters? One he talked about the rivalry the structure the strategy among the firms. Second thing, he talked about the demand of the goods right.

Third demand condition that is, third he talked about the you know availability of the substitutes right. And the fourth, he talked about the factor endowments right. So, all these 4 factors that Michael Porter said, he said this have a profound impact on the international trade. Today, we will continue in our lecture 11 on a similar topic which is called the Factor Mobility Theory.

So, what is this theory talking about and let us discuss about that right. The first question, that comes when we talk about factor mobility; as you can understand from the word factor we talk about the factors of production or factor endowments, and mobility is the movement right.

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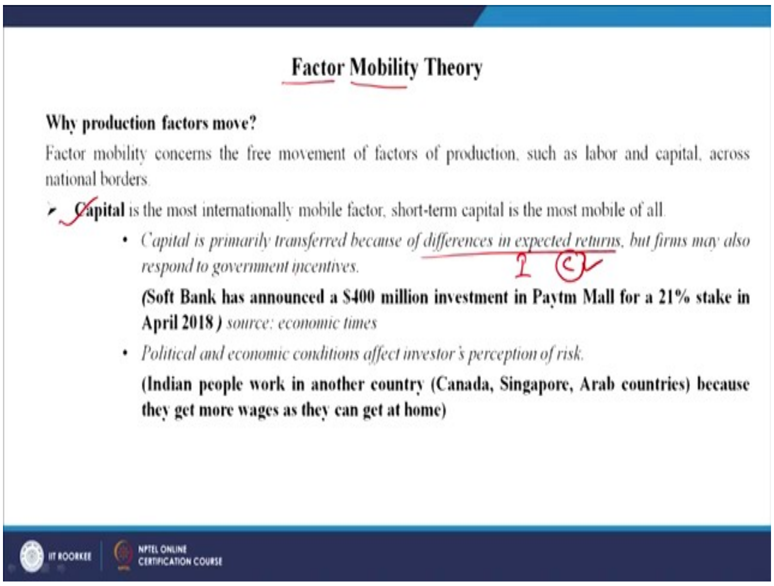

So, what happens when there is a movement of factors, across the international boundaries? So, the question that comes here is why production factors move at all? So, factor mobility concerns the free movement of factors of production, such as labor and capital across national borders.

As we have seen that, with the advent of globalization and you know there is an increase in liberalization countries have spoken you know the business leaders have talked about more and more openness and free freedom right, to do biggest business across boundaries.

So, they feel as a result of it somebody who is doing good in let us say product x, he could specialize in that and he could export it to other countries and somebody who and he could import something in which he is not it is not very good at right. So, factor mobility is a very important theory or a very important concern for all the business leaders or the policy makers.

Because, if there is no factor mobility, there is a fear, that everybody will live in small islands which in which they are isolated and they would only do what they are best toward with. So, if they have a natural advantage or in something they can do only that much, but they cannot gain by of any other advantage that some bound neighboring country is doing right. So, for this reason what are the things involved in the factor mobility let us see. The first point it talks about the capital.

So, capital is the most internationally mobile factor, right. Short term capital is the most mobile of all. So, what is a capital? A capital we all understand what is capital right. So, capital amount of we can simple terms understand is the amount of you know money or exchange; that helps in as a which is comes as a part of the investment right.

So, capital is primarily transferred because of differences in the expected returns, now for example, you see at the moment India is going through a very interesting condition not a very positive I would say, but very interesting because, the stock market is not doing well.

The many of the foreign investors have are pulling back their money right. And they are finding newer markets where they would invest right. So, the reason is they feel that since the Indian economic is not at a very healthy condition at the moment when I am speaking.

So, it would be better if they can put in their money in some other markets and draw a higher interest rate. So, what it says is, primarily transferred because of the difference in the expected returns. So, expectation from India let us say versus expectation from China.

Now, if China Chinese economy they expect there will be a higher growth rate; so, they would to China right. But, firms may also respond to government incentives, but sometimes the firms also do respond; when governments try to attract the firms through better soaps and better facilities, right incentives. Example you see soft bank has announced a 400 million dollar investment in Paytm Mall for a 21 percent stake in recently right; so, capital being one of the first things.

Political and economic conditions also effect the investor's perception of risk. So, when you talking about capital, one is we talked about the incentives, the other thing is we talked about the political economic conditions. Now, Indian people work in another country Canada, Singapore, Arab countries etcetera, because they get more wages as they can get at home.

So, this is the about the capital we said now, this is we are talking about the let us say for example, the labor now for example, you see in a country like Japan where lot of people are getting aged and old. So, they would need more of help from young people.

So, these young people may flow from India which is a country of young people. So, that is a positive thing to India. Similarly, Indians are very good at English and mathematical abilities. So, these kind of skills that the Indians have would be helpful for some countries which need these skills for their own development ok.

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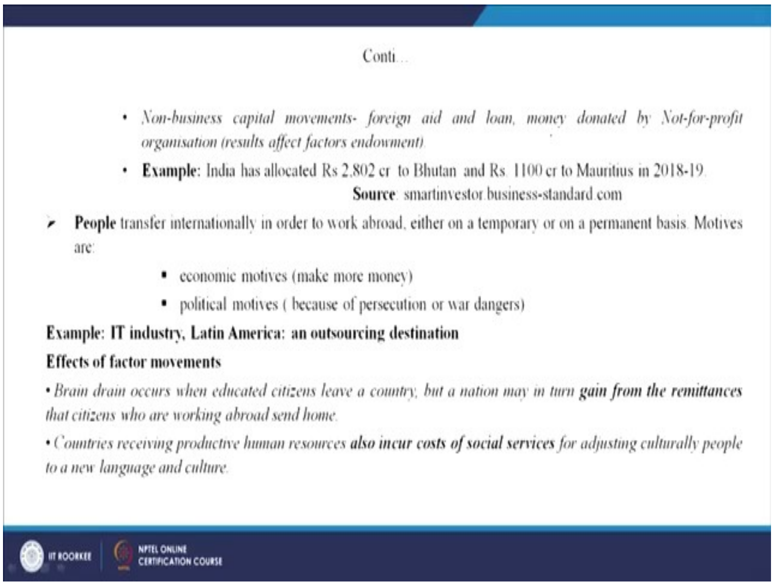

Non-business capital movements - now foreign aid and loan right, money donated by Not-for-profit organization etcetera, you see example: India has allocated rupees 2,802 crores to Bhutan and rupees 1100 crores to Mauritius in 18-19.

So, this this is sometimes you know not business related exactly, but this also creates a environment an ambiance, where a healthy relationship exists between two countries and in the long run there might be some strategic advantages or directly it might impact business or indirectly it might impact business or if not business at least the political condition of the two countries.

People transfer internationally in order to work abroad either on a temporary or on a permanent basis. So, we have seen lot of Indians going to the US, lot of Indians you know, people from Kerala work in the Kerala and that South belt we find they are working in the Arabian countries right and they are earning good money.

So, motives are maybe economic motives to make more money right. Political motives because they feel there might be fear of war. So, if somebody feels there is a fear of war; then the person would tend to move from that country and they would leave. So, this kind of a situation sometimes works adversely for a country right.

So, that is why every country should have a very healthy political climate. You see in example I have said the IT industry where people are moving into the IT industry they moved from because they joined the IT industry because, of thinking that they would be transferred to the US, the Canada kind of country development is they can make where they can make more money right and a good exposure.

Latin America is an outsourcing destination right. Ok. The effects of the factor movements; so, what happens when the factors are moving factors means factors of the labor, capital and all. One effect is the brain drain occurs when educated citizens leave a country, this is an adverse effect.

But a nation may this part is negative maybe it seems, but a nation may in turn gain from the remittances that citizens who are working abroad send home. Now, if I will go outside, and if I am earning 5 times more money than what I am earning here; so, the contribution that I can make to my country will also be substantially more right.

So, countries receiving productive human resources also incur costs of social services for adjusting culturally people to a new language and culture. So, these are some of the you know effects of factor movements right. What is the relationship between international trade and factor mobility? How are they related? How does a factory mobility effect the international trade?

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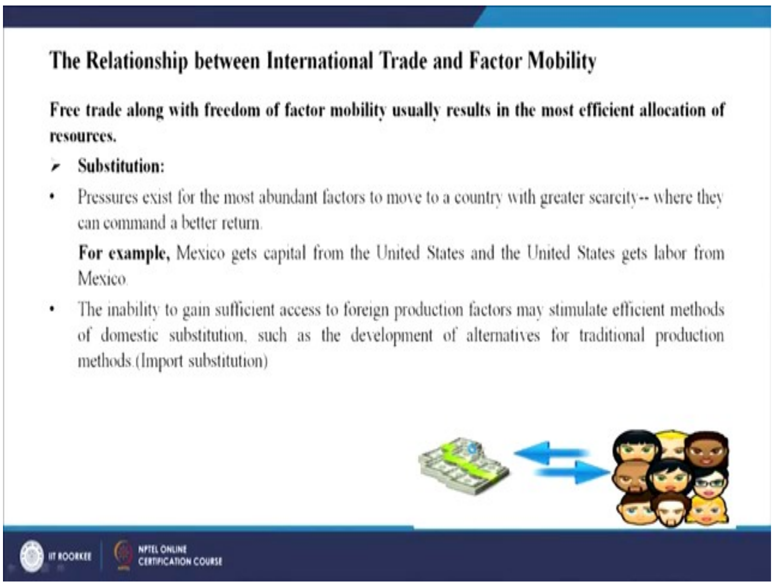

First, so free trade along with freedom of factor mobility usually results in the most efficient allocation of resources. Why? Because simple one who tend to go for specialization. So, if I am free to import something and I do not have to spend use my resources right. I have explained this concept in the David Ricardo's comparative advantage theory right. When and Adam Smith's absolute advantage theory.

So, when I am doing something and I would like to utilize my resources to produce that output in which I have a maximum advantage right. And I would like to rather import that item from somewhere else, because I do not have an expertise or an advantage in producing the next the other item, which I am not very good at. So, some other country might be good at that. So, instead of doing everything I will do the one which I am best at.

So, what is substitution? Pressures exist for the most abundant factors to move to a country with greater scarcity right. What it says, pressures exists for the most abundant factors to move to a country where there is as I said about Japan. So, there is a scarcity of human beings. So, they are more depending on robots, but all the time you cannot depend on that. So, you need human beings.

So, they might want more of nurses and people for help. Where they can command a better return example, Mexico gets capital from the United States and the United States gets labor from Mexico. So, it is a symbiotic relationship. The inability to gain sufficient access to foreign production factors may stimulate efficient methods of domestic substitution. Now what is that is very interesting, such as the development of alternatives for traditional product methods right.

So, when there is an inability to gain sufficient access to foreign production, sometimes it do helps also does help because, it helps in stimulating better methods of domestic production. So, the domestic the government may for example, in the Make in India campaign for example, the government of India today, are just the business leaders to find out better means of doing things in India.

As a result of it what happens, the cost of making the things in India would be cheaper, and the point is we will also have more employment generation right.

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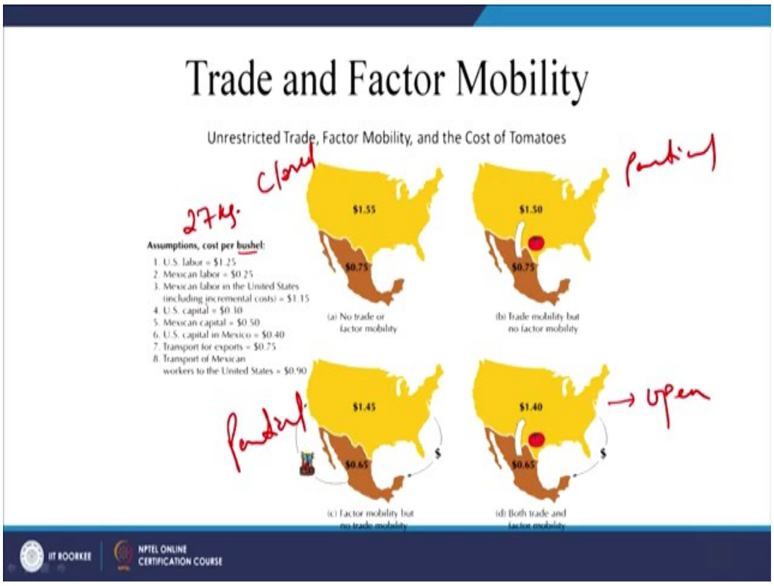

Let us see through a diagrammatic representation what is the relationship between trade and factor mobility? I would like here that all of you try to understand these 4 cases there are 4 cases here: Case A- when there is no trade or factor mobility. Case B- when there is trade mobility, but no factor mobility; that means, trade is being done between two nations, but no factor mobility is allowed; that means, no labor can move, no capital is allowed to move ok.

The 3RD Case is factor is mobile; that means, labor and capital they are mobile, but trade is not mobile. There is no relationship right. So, you cannot you do not have trade between them. And the 4TH Case is both trade and factor are mobile.

So, it is a very open, this is a very open culture. So, this is open extremely open this is a completely closed ok. And these are partial. This is partial and this is partial ok. Now, let us look at the assumptions. This is a case of a you know this is a simple case where it talks about tomatoes right; the trade of tomatoes right. So, to produce tomatoes in U.S the labor cost is 100 and sorry 1.25 dollars per bushel. 1 bushel is around 27 kgs I think right.

So, this is a unit. So, US labor required the cost of US labor is 1.25 dollars per bushel. And Mexican labor this is the case of US and Mexico. So, Mexican labor charges only 0.25 dollar per bushel right. So, in case the Mexican labor comes to the United States right. And stays there, there is an incremental cost of 0.9.

So, which makes it 0.9 + 0.25 1.15 right. So, suppose a US, you know the United States get some Mexican labor. So, they have to pay a transportation costs the living cost actually of 0.9 right. So, these are some of the data given to you Mexican capital cost is 0.5, US capital cost is 0.5 why? Because US is abundant capital of (Refer Time: 14:44) capital. Transportation cost is 0.75.

Now, kindly calculate for if there is no trade and factor mobility what will be the total costs incurred by each US and Mexico? Similarly do it for the same for this, for this and for this right. Try to do it on your own then, I will show you what is the exact condition right.

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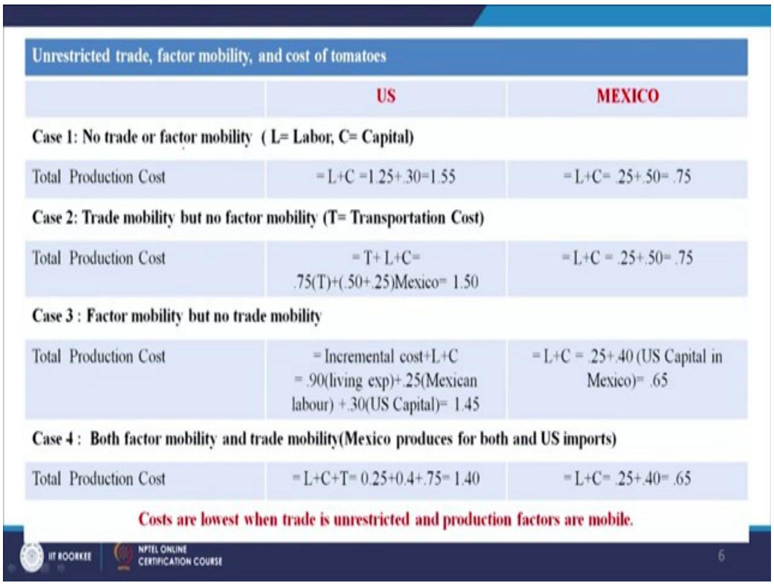

Unrestricted trade, factor mobility, and cost of tomatoes	US	MEXICO
Case 1: No trade or factor mobility (L= Labor, C= Capital)		
Total Production Cost	=L+C =1.25+.30=1.55	=L+C= .25+.50= .75
Case 2: Trade mobility but no factor mobility (T= Transportation Cost)		
Total Production Cost	=T+ L+C= .75(T)+(.50+.25)Mexico= 1.50	=L+C = .25+.50= .75
Case 3 : Factor mobility but no trade mobility		
Total Production Cost	= Incremental cost+L+C = .90(living exp)+.25(Mexican labour) +.30(US Capital)= 1.45	=L+C = .25+.40 (US Capital in Mexico)= .65
Case 4 : Both factor mobility and trade mobility(Mexico produces for both and US imports)		
Total Production Cost	=L+C+T= 0.25+0.4+.75= 1.40	=L+C= .25+.40= .65

Now, let us see the case 1: No trade or factor mobility. So, L is labor, C is capital this is US. This is Mexico. Now, what is the total production cost? Now, if I do it in US when there is no trade or factor mobility. So, I have to do it in US. So, what is my labor cost? 1.25 right; + 0.3. Now look at it, 1.25 + 0.3 is the capital cost this one right which makes 1.55.

Now, same thing that in in Mexico the labor cost is 0.25 per bushel dollars per bushel, this is all in dollars right. And 0.5 is a capital cost. So, capital cost and the labor cost total is 0.75. So, if Mexico and US; do not have any trade or factor mobility; then, US will have to pay 1.55 dollar per bushel and Mexico will have to pay 0.75 dollar per bushel ok.

Now, let us go to the second case: Where trade mobility is there, but factor mobility is not allowed.

So, now that means, what if trade is there that means, there is some transportation also involved now. What is the total production cost? The total production cost for US now is since, trade is allowed US will import get the items from Mexico because obviously, Mexico has a cheaper rate of production. So, what is the rate of production in Mexico? 0.75, this one right. So, 0.75 + 0.75 of transportation is equal to how much? 1.5 dollars per bushel.

So, there is a saving you can see from here it was 1.55 and now it is 1.5. What is the case of Mexico? Mexico would not like to import it from obviously, US because it is more costlier. So, they would do it on their own. Since, factor mobility is not allowed otherwise they would have got the capital from US they would do it all on their own.

So, this is capital is 0.5, labor is 0.25 right ok. Let us go to the third case: Now trade is not allowed, but factor mobility is allowed; that means, one can move from the other capital and labor can move from one country to the other. So, what is the production cost for US? Let us see. So, US finds that the labor in Mexico is cheaper ok.

So, they will like the labor to come from Mexico and stay in US and do it. Since, no trade is allowed. So, that has to be done the production has to be done in house in the country. So, the incremental cost + L is a labor + capital. So, incremental is 0.9, which is the living expenses + 0.25 is the Mexican labor is being charged.

And 0.3 is the US capital; US will use its own capital right. So, total is 1.45 ok. Now, what will Mexico do? Will Mexico get labors from US? Obviously, not it is 1.25. So, high why should it. So, it has a advantage in labor charge so, 0.25; but if it gets the factor the capital from US then, instead of 0.5 which is its domestic capital charge it will get at 0.4, let us see this at the back. So, US capital in Mexico is 0.4 dollars.

So, when I add this it becomes 0.65. So, you can see there is a fall again. So, the cost is falling. The last condition both factor mobility and trade mobility is happening. So, there is all free; in such a condition Mexico produces for both and US imports it right. So, what happens the total production cost for US now, because Mexico will specialize in this particular production; it is a labor intensive industry and Mexico has a lot of labor right.

So, the labor charge 0.25 Mexican labor, the cost of capital which is lesser so, factor mobility is there. So, US cost in Mexico right US capital cost in Mexico; + 0.75 is when you import it right so, you are importing; so, 1.4.

So, and on the other side there is no change in the Mexico because, Mexico will use has already done it in this case. So, 0.25 it is labor charge, and 0.4 is its cost of capital that it has brought from the US 0.65. Now, if you look at this 4 all the 4 cases in US and the all the 4 in Mexico here we are finding that there is a constant decline in the prices the cost per bushel in the US when both factor mobility and trade mobility is there.

And the it is the costliest when there is no trade or factor mobility. Similarly, Mexico also has the advantage although, it is similar to factor mobility but no trade because it has an advantage of production, but still it is one of the best cases. So, what it says is costs are lowest when trade is unrestricted and production factors are mobile right. I hope this case is crystal clear ok.

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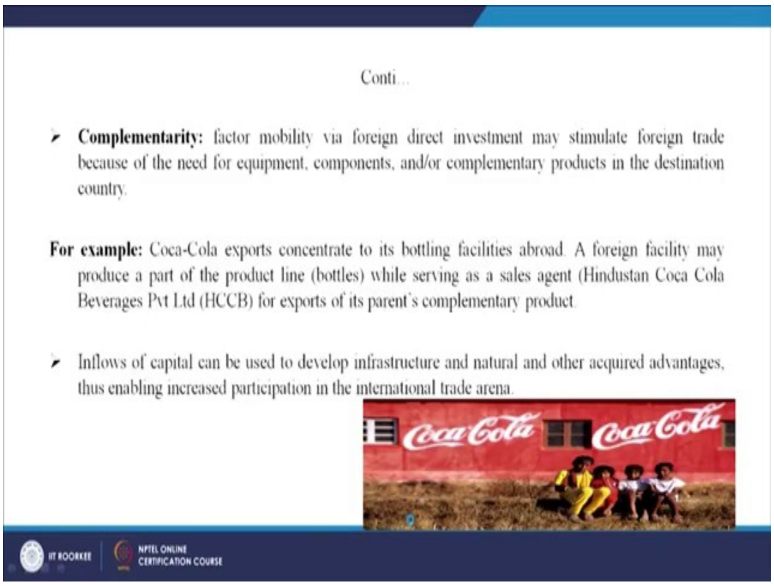

Let us continue, complementarity what is complimentary? So, for a factor mobility when via Foreign Direct Investment: FDI may stimulate the foreign trade because of the need for equipment, components and complimentary products in the destination country. So, factor mobility is through the FDI, when it comes through the FDI it helps in simulating the foreign trade because of the necessity of other components and products which are part of the maybe final product or in the destination country it has a great need ok.

Let us see this example, Coca-Cola exports concentrate the you know liquid to its bottling facilities abroad. So, what it does it makes the concentrate and it sends abroad. A foreign facility may produce a part of the bottles the product line the bottles while serving as a sales agent right; for exports of its parent complimentary product.

So, what it is saying is the bottling plants they put in the concentrate the and the make the product and then sell it off to the market. So, what it is basically saying; so, Hindustan Coca Cola Beverages Private Limited for exports of its parent. So, what it is doing is it is helping the parent’s and also getting the bottles also right.

So, the bottling is done in India for example; so, the local players they do the bottling and the concentrate comes from the main parent right in case of Coca-Cola. Inflows of capital can be used to develop infrastructure and natural and other acquired advantages, thus enabling increased participation in the international trade.

So, when there is an inflow of capital; that means, when factor when there is international trade and factor mobility happens; so obviously, some countries which are deficient in one thing for example, let us say capital most of the underdeveloped countries are lack in capital.

So, they get the capital and because of the capital they can make roads, they can make bridges, they can make dams, they can make create agricultural facilities, schools, hospitals which help in increasing the overall lifestyle and productivity of the people out there. So, and thus it can help in the you know boosting the business. Now, this is a question a few questions that you can take right.

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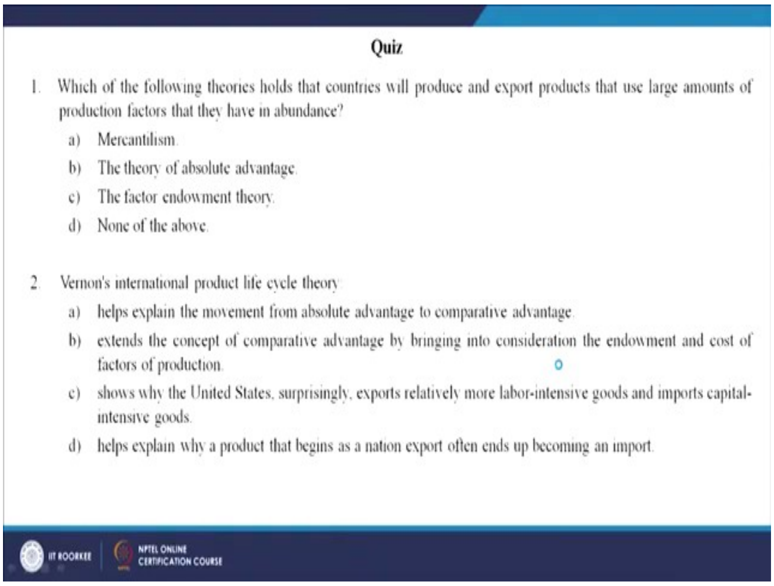

So, this questions for example, this is a quiz you can take which of the following theories holds that countries will produce and export products that use large amounts of production factors that they have in abundance? So, which factor which theory says this?

So, you can answer. So, Vernon's international product life cycle so, this is another question. So, what you can do is in your free time take the questions and try to answer them. You can do it simultaneously also along with me ok.

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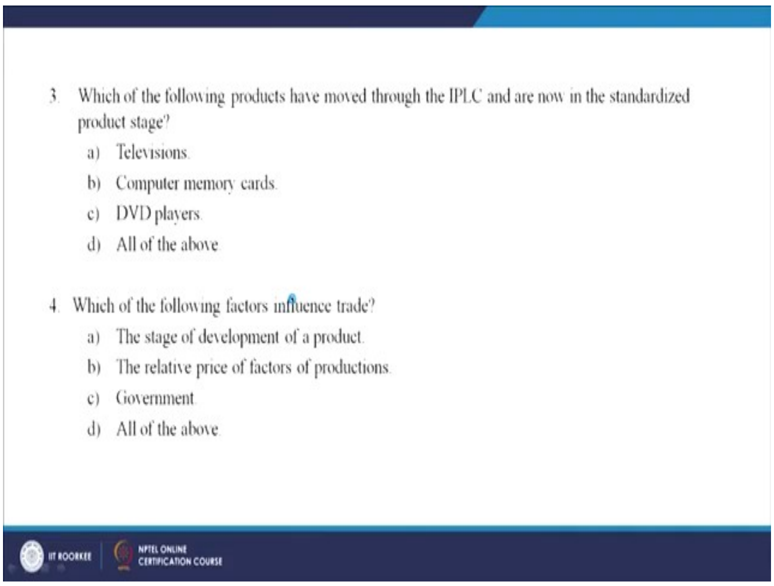

So, two more questions are there. Which of the following products have moved through the IPLC International Product Life Cycle and are now in the standardized production stage? Televisions, computer memory, DVD, all of the above it can tell me. Which of the following factors influence trade? State of, stage of development of a product, the relative price of factors of productions, the government or the policies of the government and all of the above right.

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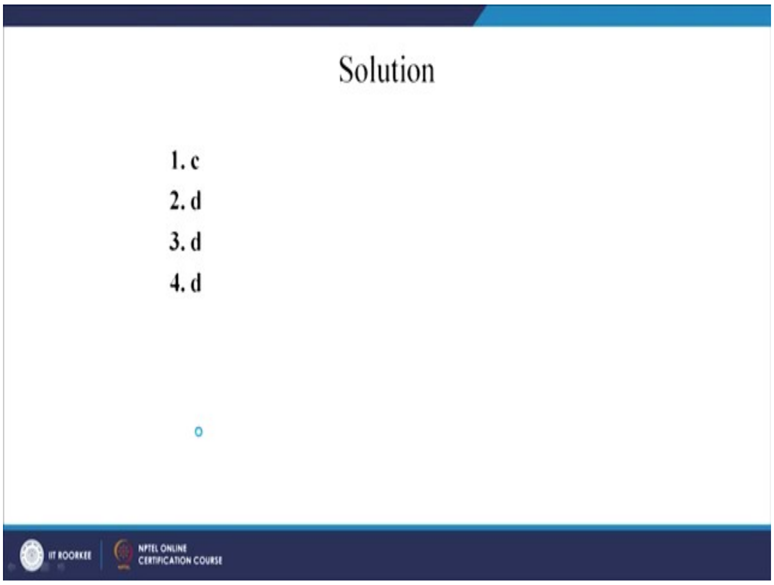

So, the answers are also there. So, if you want. So, these are the answers if you have done it you can note it down. So, the first answer is c) factor endowment; obviously, then what it says international product life cycle theory is helps to explain why a product that begins as a nation exports ends often ends up becoming an import.

So, we did it. So, they started as an exporting country and they ended up as a importing country right. And, here all of the above again and which are the factors influences trade again all of the above right.

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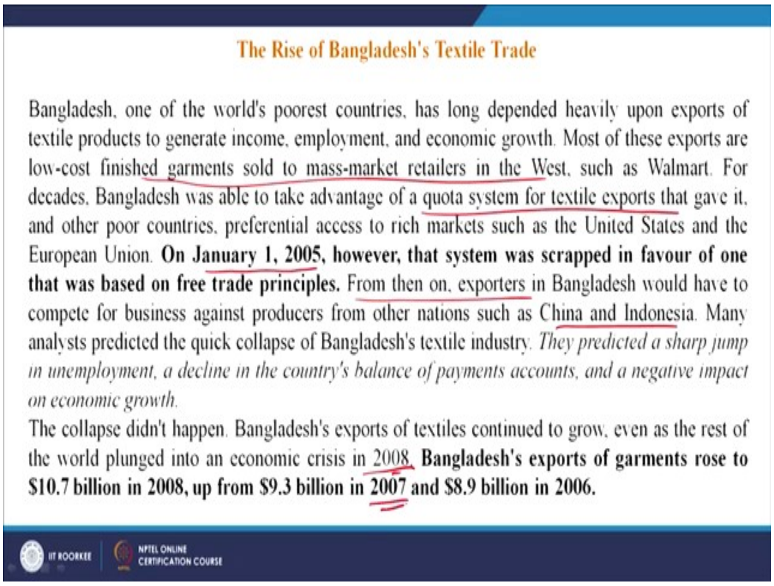

So, today we will discuss about this case, this case is of this is an old case, but a it is a good case this case was regarding Bangladesh, which grew as a textile trade an exporter of textiles and what happened let me read it out and you can go with me.

Bangladesh, one of the world's poorest countries I think everybody agrees to that has long; statistically also it is you can check that, has long depended heavily upon exports of textile products to generate income, employment and growth economic growth.

Most of these exports are low-cost finished garments right; to mass-market retailers in the west such as Walmart. Bangladesh was able to take advantage of a quota system this was a very famous the quota system which existed right; so, at that time so, for the poor countries right. Preferential access to rich markets such as the United States was offered and the European Union.

But on January 1, 2005 this textile agreement was scrapped, this preferential treatment was scrapped right. However, the in favor of one that was based on free trade principles they said, now no more of quota it is a free trade now system. So, everybody thought that now Bangladesh would have a tough time; and Bangladesh would not be able to take advantage because the quota is lost is not is abolished.

So, from then on, exporters in Bangladesh would have to compete for business against producers for from other nations such as China and Indonesia. Many analysts predicted that quick collapse of Bangladesh textile industry would happen. They predicted a sharp jump in unemployment, because it is a one of the largest industries in Bangladesh.

A decline in the country's balance of payment accounts and a negative impact on the economic growth ok. But however, the collapse did not happen. Bangladesh export of textiles continued to grow, after the quota system also even as the rest of the world plunged into an economic crisis especially in 2008.

Bangladesh exports of garments rose to 10.7 billion in 2008, up from 9.3 billion in 2007 and 8.9 billion in 2006. So, you can clearly see that the quota system the preferential thing that was happening had no impact on Bangladesh; however, other countries could not match up. Why it happened? Let us see.

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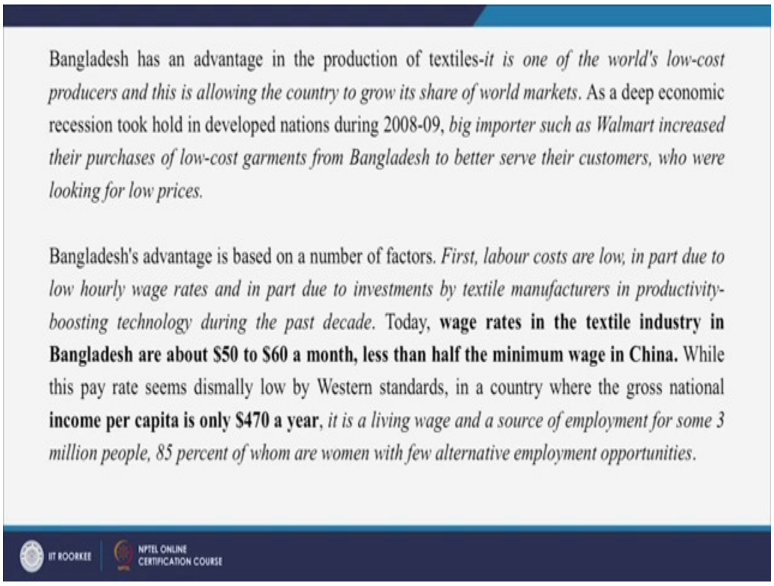

Bangladesh has an advantage in the production of textiles. It is one of the world's low cost producers and this is allowing the country to grow its share of world markets. It is a low cost producer. During the economic recession, big importer such as Walmart increased their purchases of low-cost garments from Bangladesh; to better serve their customers, who were looking for low prices.

Bangladesh's advantage is based on a number of factors. First, labor costs are low, in part due to low hourly wage rates and in part due to investments by textile manufacturers in productivity boosting technology. So, both capital and easy capital they are getting and labor is there and their advantage. Today, wage rates in the textile industry in Bangladesh are about 50 to 60 dollar a month which is even half of China, China's wage.

While this pay rate seems dismally low by Western standards, in a country where the gross national income per capita is low; it is a living wage and source of employment for some 3 million people, 85 percent of whom are women while few alternative employment opportunities exist. So, the woman do not have an opportunity and if they are getting a job and they are getting some decent you know at least some income that is very good for them.

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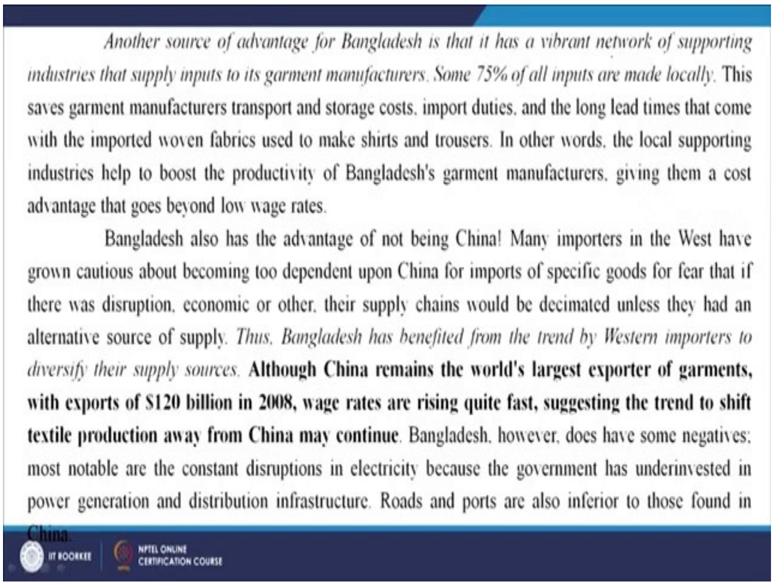

Another source of advantage for Bangladesh is that it has a vibrant network of supporting industries right that supplies inputs to the garment manufacturer. So, only having a labor does not work. So, they have a supporting industries now you can think about the porter's diamond model here.

So, where it says strategic inputs the firm rivalry, the strategy of the company, the structure of the company and all right. So, some 75 percent of all inputs are made locally. So, Bangladesh makes most of the items that are required for textile manufacturing, they make it locally; so, they are not dependent on anybody.

So, this is their specialization, this is their core advantage. This saves transportation and storage costs, import duties, long lead times that come with the woven fabrics. So, in other words the local supporting industries helped to boost the productivity of Bangladesh garment manufacturers, giving them a cost advantage that goes beyond the low wage rates.

It is only not the low wage now, because of the cost of transportation, long lead time which everything is cut down. So, they have a got an advantage no import less of no import duty in fact, and storage cost is also managed.

So, Bangladesh also has the advantage of not being China. Why? Many importers in the West have grown conscious about becoming too dependent upon China right. So, they fear that if there was disruption, then the supply chains would be decimated unless they had an alternative source of supply. So, they want to keep Bangladesh as an alternative all this. So, Bangladesh has benefited from the trend by Western importers to diversify the supply sources.

Although China remains the world's largest exporter of garments, with exports of 120 billion, wage rates are rising quite fast, suggesting that a trend to shift textile production away from China may continue right. But Bangladesh has some negatives also the. For example, the constant disruptions in electricity right, the because the government has underinvested in power generation. Roads and transports are also inferior.

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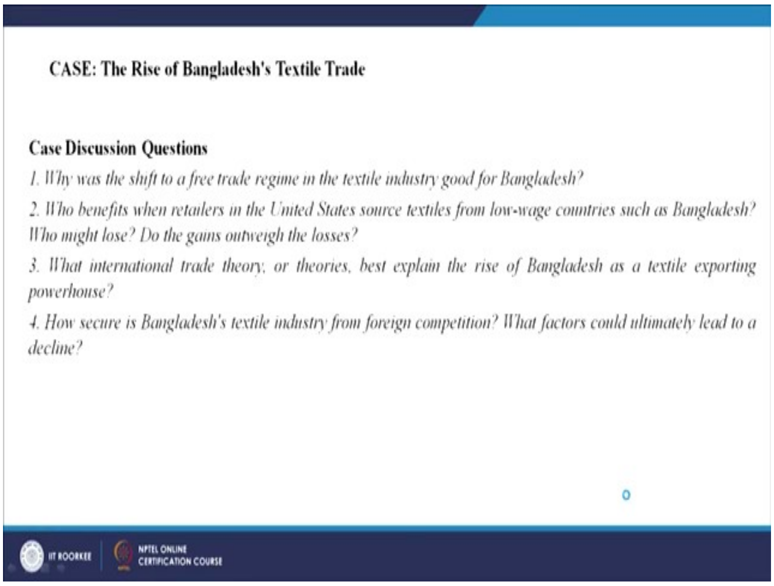

So, the case in this case we have two-three questions four questions. What are the questions? Why was the shift to a free trade regime in the textile industry good for Bangladesh? First of all is it good or bad you have to think. So, they after the quota system was abolished says they still grew. So, the question is why did it grow?

Second, who benefits when retailers in the United States source textiles from a low wage country such as Bangladesh? Who might lose? Do the gains outweigh the losses? What international trade theory or theories, best explain the rise of Bangladesh as a textile exporting powerhouse? Fourth how secure is Bangladesh textile industry from foreign competition? What factors could ultimately lead to a decline?

So, these are the key questions which you need to answer I think take your time and try to answer this this look very simple also they are simple you can answer them right. But, once you have done it then you can cross check with my answer I have made it entire the solution.

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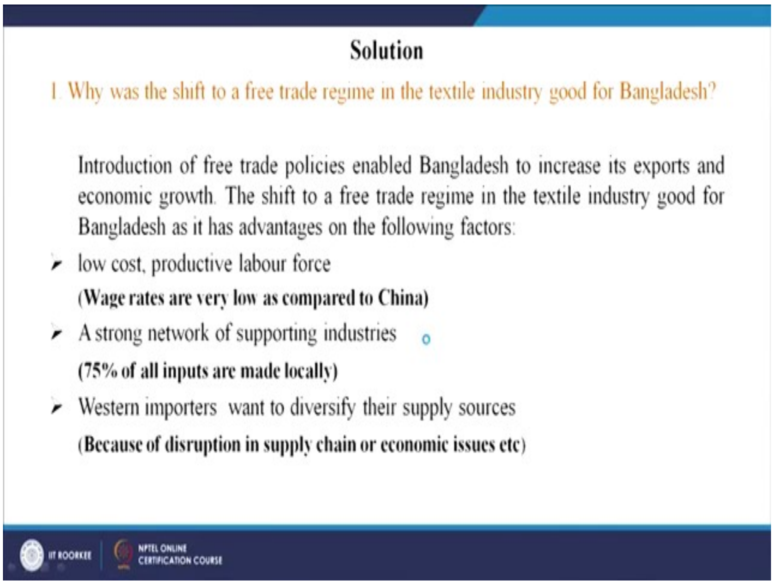

Why was the shift? Introduction of free trade policies enabled Bangladesh to increase its exports and economic growth. The shift to a free trade regime was good for Bangladesh it has as it has the advantages on the following factors; already they had a low cost of labor, strong network of supporting industries. Western importers wanted to diversify and not depend only on China ok.

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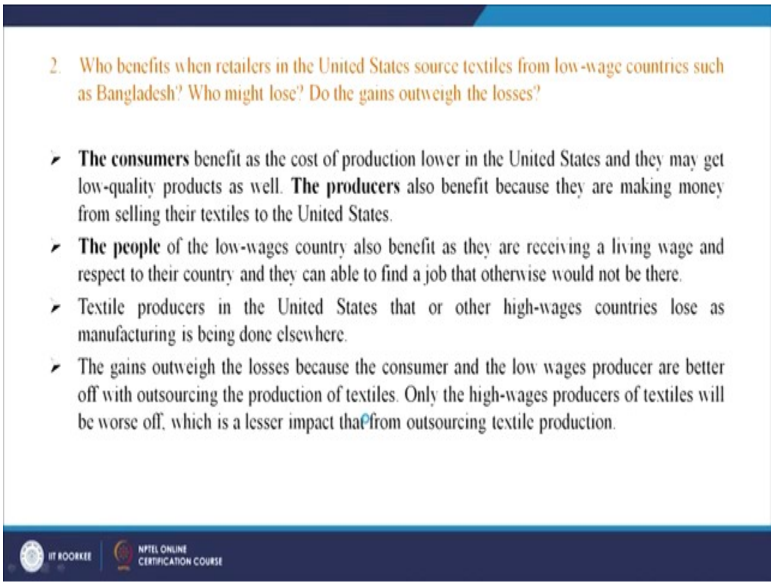

Who benefits by a result? Right. The consumers benefit as the cost of production is lower in the United States as they may get the local quality products as well. The producers also benefit, because they are making money from selling the textile to the developed country like US. The people of the low wage country benefit as they are receiving a living wage and respect to their country in the country and they can they are able to find a job that otherwise which otherwise they could not have found.

Textile producers in the United States that are other high-wages countries lose as manufacturing is been done elsewhere. So, this is who loses? The question was who might lose right. The gains outweigh the losses because the consumer and the low wages producers are better off with outsourcing the production of textiles. Only the high wage producers of textiles will be worse off right.

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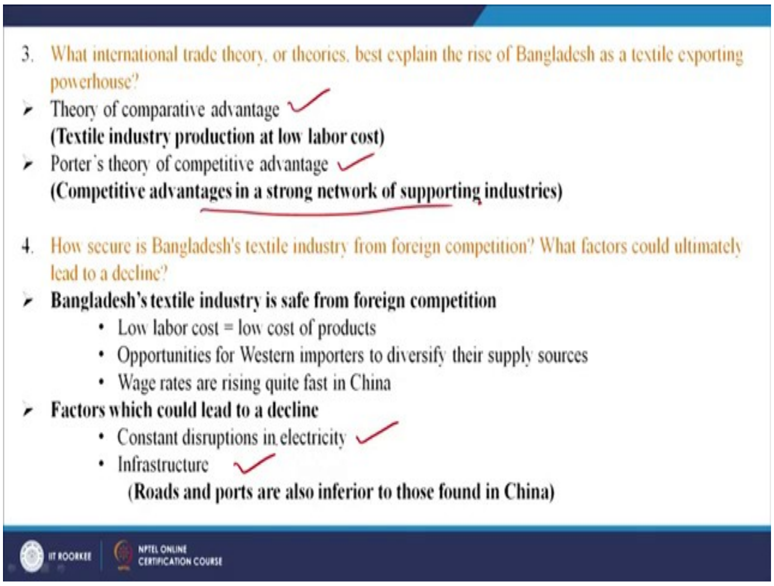

What international trade theory best explain the rise of Bangladesh? So, what you must have written you can compare. The theory of comparative advantage where, it say the textile industry production at lower low labor cost. So, these are comparative advantage that it has got; Porter's theory of competitive advantage which I had just mentioned.

The network of in the supporting industries and the last question was how secure is it what factors could ultimately lead to a decline? Bangladesh's textile industries safe from foreign competition because of the low labor cost low cost of products, opportunities from western importers to diversify. Wage rates are rising quite fast in China.

So, which is good for Bangladesh, but what could lead it to could do decline? Constant disruptions in power electricity, poor infrastructure may and I would add one more is a maybe a political instability. So, if these things continue maybe Bangladesh would suffer right. So, this is all we had to understand the factor mobility theory and how it affects the international trade.

So, today we will wind up here, I hope you are clear and.

Thank you very much.