

International Business
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Lecture – 09
International Trade Theories - II

Welcome everyone to course International Business. In the last lecture, we were talking about you know the theories of comparative advantage, the free trade theories basically, the theories of comparative advantage and the theory of absolute advantage. So, but today we will be continuing with it.

And by the time when I am standing here and discussing with you in the recent G7 Summit, the President of America, Donald Trump has said they would not impose tariffs on Japanese's automobiles. So, this is a news which will have a significant impact on the auto stocks and the automobile market as such.


And it was also concluded in that summit that India would be importing more of oil from US. So, this is something that talks about the international trades that happens across the countries ok. So, today we will be continuing from the last class, and we will be discussing about the trade pattern theories.


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Trade Pattern Theories

The theories of country size, factor proportions, and country similarity all contribute to the explanations of:

- How much does a country trade?
- What types of product does a country trade?
- With whom do countries trade?

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So, the first thing that we are discussing is what factors are affecting right!. For example, the theories of country size, factor proportions, and country similarity all contribute to the explanations of how much does a country trade? so a country trades at what volumes right!, and what kinds of products? and with whom? So, these three questions today will be largely discussing.

So, how much does a country trade? Which, what types of products does the country trade? Does it trade all types of products or is it confined to a few? For example, capital intensive goods or labour intensive goods, or how does it happen right!, or natural goods basically.

Or and with whom does it like to trade? Do you have an equal affinity to trade with any country, or you have a close relationship with some countries, how do you decide the trade relationship? And what products, and how much finally so right!?

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The slide is titled "How much does a country trade?". It features a bulleted list under the heading "Theory of Country Size". The list contains three points: "Countries with large land areas are apt to have varied climates and natural resources. **For examples:** Brazil, China, India, US.", "More self-sufficient than smaller countries", and "Large countries' production and market centers are more likely to be located at a greater distance from other countries, raising the transport costs of foreign trade". To the right of the text is a blue globe showing the Americas. At the bottom left are logos for "IIT ROORKEE" and "NPTEL ONLINE CERTIFICATION COURSE". At the bottom right is the number "3".

How much does a country trade?

- **Theory of Country Size**
 - Countries with large land areas are apt to have varied climates and natural resources. **For examples:** Brazil, China, India, US.
 - More self-sufficient than smaller countries
 - Large countries' production and market centers are more likely to be located at a greater distance from other countries, raising the transport costs of foreign trade

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So, coming to the first point, how much does a country trade right!, how much? So, obviously, somebody will think, it depends on what is this requirement right!. So, taking that point we start with the first one, which says theory of country's size.

So, what it says here is that countries which have large land areas and have a vast resources – a natural resources they have a varied climate also and large natural resource. So, these countries would be more self-sufficient then a smaller countries right!, because

you have for example take India and China; so, these being very huge countries, and Russia.

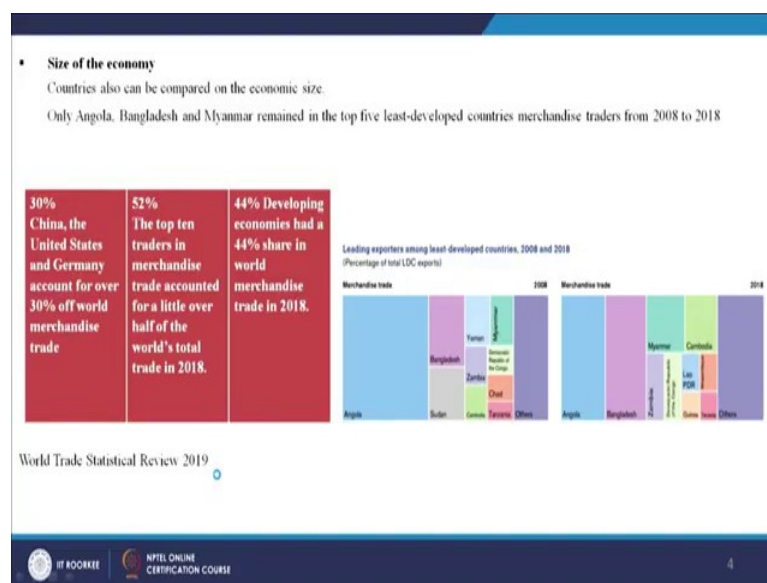
So, these are huge countries where you have different kinds of climate,, so suiting different kinds of you know products/produce. So, we produce our own most of the things we produce on our own. So, we are self-sufficient, and we do not like to depend on others.

But on the contrary there are smaller countries which do not have the advantage of land and natural resources. So, these countries would like to depend you know on exports will largely right!. So, what it says is large countries production and market centers are more likely to be located at a greater distance from other countries raising the transportation cost.

So, this is connected with that small and large that because for example a country like India is so huge and large. So, the transportation costs are also equally you know goes up right!. So, therefore, transportation becomes a challenge right!.

On the other hand, smaller countries which have very close boundaries with the other good countries developing countries and developed countries, they would tend to export it to the other market because the transportation costs are low right!. So, and the tendency to produce more and you know be self-reliant and then sell the exports or the surplus to the other countries is a general tendency that you find in smaller countries.

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Second point is the size of the economy. So, what size the country economy size is. For example, if you look at this table now what it says 30 percent you know China, the United States and Germany account for over 30 percent of world merchandise trade.

So, this is what it talks about how much contribution does China, United States, and Germany give more than 30 percent of the world merchandise trade ok! The top 10 traders in merchandise, that means, the largest sellers basically Walmart, Tesco, and all account for over 52, half of the 52 percent of the World's total trade right!

Developing economies had a 44 percent share in world merchandise in 2018; so, developing economies top 10 merchandise sellers and these three countries. So, the data suggests how size of the economy are the size of the you know companies effects the trade right!

This example if you can see this what it says, this data has been taken from the world trade statistical review only Angola, Bangladesh and Myanmar. Now, look at this value now 2008 and 2018. So, how merchandise state has changed right! so this is the leading exporters among least developed countries 2008 and 2018.

So, Angola you can see has a very large share, Bangladesh and then Myanmar, Sudan right! in 2008. But when it comes to 2018, you see Angola has also substantially fallen and Bangladesh has increased, Myanmar has increased and Cambodia also has increased

right! So, there has been some change. So, what it basically tells is size of the economy has also an impact on the size of the trade you know how much would you trade.

Now, the question second question that we are talking about is what types of products does a country trade? Does a country trade in all types of products? Does India trade you know in all types of products, does it export everything or does it import everything, or it exports a few only products? Yes, then what are they?

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What types of product does a country trade?

- **Factor-Proportions Theory** (Heckscher & Ohlin)
 - ✓ A country's relative endowments of land, labor, and capital will determine the relative costs of these factors
 - ✓ Factor costs will determine which goods the country can produce most efficiently
- **People and land** (Australia and Canada- wool and wheat)
- **Capital, labor rate and specialization** (Iran- handmade carpets)
- **Manufacturing locations** (Hongkong goes for textiles rather than automobiles)

For example:

- ✓ Most successful industries in Hong Kong are those in which technology permits the minimum use of land relative to number of people employed?
- ✓ Does not compete in the production of automobiles. Goes for textiles which happens in multistorey factories requiring minimal space.

▪ **Product technology:** most new products originate in developed countries. *Deve* *Developin*

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So, to explain this point, we will talk about the first some certain theories. The first theory says is a factor proportions theory given by Heckscher and Ohlin right! Now, what does this theory says? Now, a country tries to trade with another country on basis of certain factors which are called the relative endowments. Endowments means the natural gifts or abilities to the country has in terms of what land, labor, and capital.

So, the availability of land, labor and capital will determine the relative cost of these factors. So, suppose something is not available or is in scarcity, automatically the cost of that factor will go up. So, factor costs will determine which goods the country can produce most efficiently.

Now, India has got a huge coastal line. So, our fish production is very high right! We have got a huge amount of good land cultivable land. So, in this for because of this our wheat production, rice production is also very high right! So, labor is very cheap in India

right! so that becomes one of the biggest advantages. Iran has got natural oil right! So, Bangladesh has a lot of labor cheap labor. So, it goes for export of textiles right!

So, these factors Ohlin and Heckscher, they talked about this factor endowment or basically what natural abilities does the country have, so that will decide what type of product does the country trade right! So, if I am; if I am you know having a scarcity of labor, I will try to depend more on technology. If I am having lot of labor I will try to use that labor right!

Second is people and land, what it says again you know this is connected from the first point. For example, I have said Australia and Canada right! Now, these two countries they are have large land resource. So and natural resource being very high, they produce lot of wool and wheat ok.

So, we all know we have studied from childhood that Australia produces very high quality wool right! and wheat also is produced very largely in Canada and Australia. So, why because they have lot of land resources, and they have the capability to do this right! cultivate.

Second, another point is the availability of capital, labor rate, that means, that the charge that the labor takes; that means, how much labor costs basically and the specialization. Now, to explain this we see now if some company if some country has lot of capital, for example, the US right! or Germany or let us say these countries now will have lot of capital Switzerland for that. So, these countries will be more having more capital intensive goods right! So, they will try to depend more on less on labor and more on capital intensive technology based right!

Coming to this explaining, trying to explain this, I brought an example of Iran. Now, Iran which has you know lot of labor available. It makes handmade carpets right! which is quite different, this handmade carpets are very different by the design and style from the carpets that are made in other places with the help of a machine. Specifically, in India also I have seen in many places, we have lots of handicraft products.

Now, these handicraft products today are getting a threatening from machine made handicrafts. So, although they should not be defined anymore as a handicraft because handicraft means handmade, but still those designs being made by machines today the

Indians are facing a heat(competition), the Indian handicraft industry is facing a heat(competition), but still some of the Indian handicraft designs and products are so popular and they are exported the world over right!

The another point that affects the what type of products does the country trade is the location – manufacturing location, that is what it says is how much do you allow the business to flourish in your country.

That means, do you allow FDI, what is the kind of freedom you are giving? And the point is how much of space and you know space is available. So, suppose for example, to start a large plant or a firm or a company right! a manufacturing plant, you need huge space. So, do we have it the question is? So, in some countries like India maybe it is yes, we do.

But in some other countries, for example, Singapore and Hong Kong, they are very small countries, so they do not have that capability to provide locations to for manufacturing. So, you see China has become today a manufacturing hub of the world. So, they say the manufacturing hub of the world is China right! Why? Because, China has the ability, the resource to provide to the other counterparts to come and set up their plants in China right!

On the other hand, you see Hong Kong, for example, I brought this example goes for textiles rather than automobiles. Now, you see this what I am saying. Most successful industries in Hong Kong are those in which technology permits the minimum use of land, the minimum use of land relative to the number of people employed that means the density, you can talk about the density, so land by people.

It does not compete in the production of automobiles, because they understand that if you want to set up a automobile plant the kind of space you require is very very high; on the contrary they go for textiles which happens in multi-storey factories which requires minimum space right! So, I can have textile industry in a multistory system in a fact a multistory way, so that will take less space of mine, but that I cannot do in an automobile case.

Another point is the product technology. Now, most new products originate in the developed countries right! So, technology for example, you see the most of the

developed is where you talk about Denmark, Switzerland, you know USA, Germany, Sweden, whatever you talk about these countries have developed, and they have attained a success in terms of the technology.

So, the technological growth has been substantially high in comparison to the developing countries or the under developed countries. So, most of these developed nations, they have their own high technology.


So, what kind of a nation are you, what kind of a nation, is somebody a developed nation, so they will be more rich in technology and other things. And somebody is let say developing, so they are more labor intensive, so that also has an impact.

So, what kind of technology are, how advanced you are in technology that also affects, what type of you know products does a country trade. So, the example you see a Swiss watches we say, German engines right! So, these are some of the examples correct!

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Conti...

- Process technology
- ✓ Same product can be produced by different methods such as labor and capital
- ✓ In the left, production in India is labour intensive because of low labour cost. The opposite is true for production in Italy, which is shown in the right side.



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Process technology, same product can be produced by different methods. So, you see in India or Bangladesh, for example, the Asian economies, you see the production of rice is being made by labor with the help of labor, because labor is intensive and cheap.

On the contrary if you see, this is a case the opposite is true for Italy in the right side. So, here if you see the production and you know all the processes involved in cultivation and

harvesting is being done with the help of machines now. Why? Because, these people do not have enough manpower.

Now, look at the country like India versus Japan, for example, you see India is having a very huge generation, this young generation; on the contrary Japan is having a ageing population. Now, the now because of this problem, Japan will tend to get more people young people from other countries who can maybe help them in nursing and other kind of support.


But and India has an advantage because of this young population and you know and they have a maybe employment is still a very big issue in India, these people maybe tomorrow they can join there. So, what kind of you know resources we are having that will decide what kind of products we are having.


So, tomorrow there is a large possibility that Indian hospitality industry might grow tremendously right! the hospital and the hospitality industry both can grow very tremendously, because there is a huge population which is young and that can do anything that they want. On the contrary, the Japan would be depending either on technology like robots to help them, or they would like to get young people from other countries who can work as a nurse for them right!


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With whom do countries trade?

- **Country similarity theory** (homogeneous markets)
 - ✓ most trade today occurs among high-income countries -similar market segments & produce and consume so much more than emerging economies
 - ✓ Theory says that once a company has developed a new product in response to observed market conditions in its home market , it turns to market's it sees as most similar to those at home.
- **Specialization and acquired knowledge**
Germany is traditionally strong in manufacturing luxury car like BMW, Porsche, Volkswagen, India in IT.
- **Product differentiation**
- **The effect of cultural similarity** (U.K and India, colonial relationships, India-U.S democracy)
- **The effect of political relationship and economic integration** (U.S-Cuba-Mexico & Dominican Republic for sugar)
- **The effect of distance** (Finland-Russia, Computer manufacturer 'Acer' builds plant in Finland to serve Russia)



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The question is next, first we spoke about how much and what, then now with whom? Whom does the country want to trade? Do we want does any country want to trade with everybody? Let us see. What it says is the country similarity theory. Now, what is this country similarity theory? This is something like a homogeneous market.

Most trade today occurs among high income countries, similar market segments and produce and consume so much more than the emerging economies, that means, it says countries which have a lot of similarities in terms of their consumer base and their consumer behavior, their culture and all, these people will tend to do more business among themselves, because then you do not need to change the product time and again.

So, there is a standardization of the product which leads to a scale of economy or economies of scale which leads in. So, the companies also gain by producing a similar kind of a product for a larger market.

So, A and B today now it becomes a club as a single market maybe, so that is where you see the European Union for example that is what it gives the advantage. So, they have a large market today. So, this large market is what it helps them, helps the companies and the countries to prosper.

Theory says that once a company has developed a new product in response to observed market conditions in its home market, it turns to the market its sees as the most similar. So, if India finds there is a similar market in Mexico, so we feel Mexico is so different, but no, surprisingly Mexico and Indian markets are very similar.

So, India may like to export most of its products to Mexico. See most of our business has been in the past being from India has happened with Indonesia, Sri Lanka right! because one reason was they were close, and they were close in terms of cultural similarity ok! Another point is specialization and acquired knowledge. Germany's traditionally strong in manufacturing luxury car like BMW, Porsche, and Volkswagen; India in IT.

So, what is the specialization? So, if we have a you know if I am strong in let us say manufacturing technology, I would like to sell my car in a market where it is it has a requirement right! So, that they do not have the advantage.

Similarly, you see India has a strong advantage in IT, and so most of the outsourcing businesses that happen in let say US, Australia or Canada or anybody, they hire the you know people from IT experts from India, so that is an advantage. So, here the acquired knowledge and a specialization that we are doing that helps us to go into another country right! and create a international trade ok.

Product differentiation, so this is also connected with that point of product differentiation right! So, how different the products are? Sometimes a country you know might be producing a particular product, but the consumers do not like the product being made by the homemakers or the domestic manufacturers rather they would like to get a similar product in the same category let us say you are talking about cosmetics or let us say some designer watches.

So, Indian designer watches may not be liked by the Indian consumers, and they might be expecting them to get the watches from somewhere else. So, this is something like the product differentiation occurs because of the consumers demand in because of the consumer change in the tastes and preferences.

So, they in the same market whatever is being produced in the home market they might not like it. So, they have a demand for the product made in the other market. So, this is also an, all this has happened you see easily because today the connectivity across the globe has become very simpler. So, that is why it has become trade has become very simple and much easier. Although it is complicated, but still it has become much simpler; earlier days it was very very tough.

The effect of cultural similarity UK and India you see. India was a colony to the UK right! So, because of it what happened we have learnt a lot of ways of how the British speak, the how the British people live, and that has become a part of our lifestyle also.

So, we tend to you know we do not understand that, but it has become a part. For example, why do we ride you know to the left of left in a street when we ride your bike or car, we ride to the left. It is not there in other some other countries, and it is not in US, but it is in England right!. So, we have got this habit from there.

Our people speak good English, in fact, Indians students have won many spelling competitions you know across the world and all. How has it come? Because of the

presence of this British, although we have a colony, but still we imbibe a lot of culture from them right! and they also took some of our culture. So, these relationships has created a cultural similarity.

India, US, now both are democrats, they have a democracy, the political system they have a democracy running at the moment. At the moment means today there US has a republic, and India has developed, but the democracy form of government is present in both the countries for example, let us say. So, this also creates some kind of a similarity.

Effect of the political relationship, so no wonder the best example if I want to give would be India and Pakistan. We share a very, very bitter relationship in terms and that effects our economical and the trade. But here I am giving you an example of US and Cuba. So, when US and Cuba during the time of Fidel Castro right! who was the Cuban leader.

So, at that time US stopped importing sugar from Cuba and they started importing it from Mexico and Dominican Republic of sugar for sugar right! So, they got the sugar from Mexico and Dominican Republic. So, they cut down, striked off the relationship from with Cuba. So, this is because of the political tensions that happens.

The effect of distance, now geographical distance we are now here I am meaning geographical distance. Also is a factor which talks about whether with whom should we trade. Now, you see Finland is very close to Russia. So, and Finland exports most of its items to Russia.

Here a computer manufacturer Acer, you must have all heard of the name. Acer build a plant in Finland just to serve the Russian market because it found you know this company Acer is basically from Taiwan.

So, from Taiwan to Russia to go to is very tough rather if you set up a plant in Finland which is more business friendly also, it is simpler. So, what they did, they set up the plant Acer set up a plant in Finland, and then they served the Russian market right! Ok! So, this is what we did. And now let us go to some questions.

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Quiz

1. Which theory holds that nations should produce those goods for which it has the greatest relative advantage?

- a) The theory of relative advantage.
- b) The factor endowment theory.
- c) The theory of absolute advantage.
- d) None of the above.

2. Which of the following holds that a government can improve the economic well-being of a country by encouraging exports and discouraging imports without a reliance on precious metals?

- a) Mercantilism.
- b) Quotas.
- c) Neo-mercantilism.
- d) The Leontief paradox. ✖

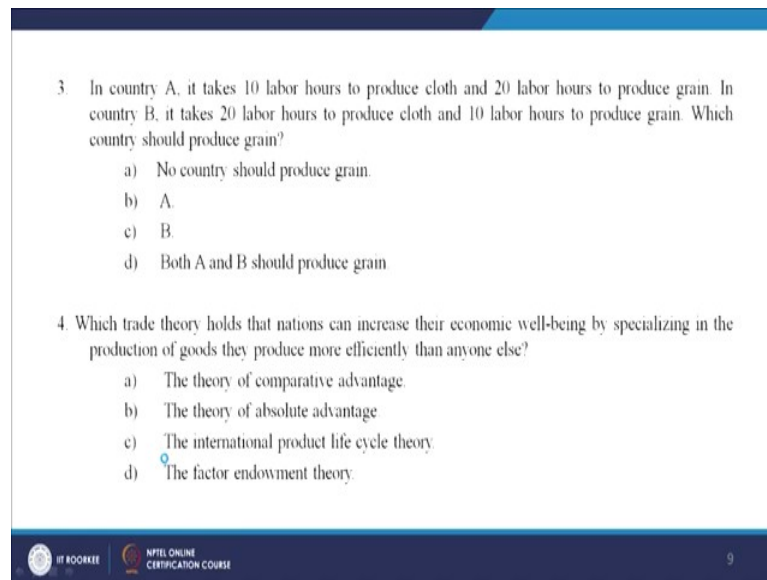
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So, I have prepared two-three questions. So, what you can do is you can think look at the read the questions, then try to answer them. So, let us see. Try to write in a note and then we will see how many correct you have made. Which theory holds the nations that produce those goods for which it has the greatest relative advantage? Ok, first question.

So, you can see the four options, you can say what is the answer right! So, take your time and tick the right! one. Second question, I am not going to tell you the answers now. Which of the following holds the government the holds that the government can improve the economic wellbeing of a country by encouraging exports and discouraging imports without a reliance; without a reliance on precious metals? Ok.

Is it mercantilism, is it quotas, is it neo mercantilism, is it the Leontief paradox, what is it? So, you have not come to Leontief paradox. So, you have got a clue, you have an advantage. So, this cannot be the answer; the answer must be among these three right! ok, fine.

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3. In country A, it takes 10 labor hours to produce cloth and 20 labor hours to produce grain. In country B, it takes 20 labor hours to produce cloth and 10 labor hours to produce grain. Which country should produce grain?

- a) No country should produce grain.
- b) A.
- c) B.
- d) Both A and B should produce grain.

4. Which trade theory holds that nations can increase their economic well-being by specializing in the production of goods they produce more efficiently than anyone else?

- a) The theory of comparative advantage.
- b) The theory of absolute advantage.
- c) The international product life cycle theory.
- d) The factor endowment theory.

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In a country A, it takes 10 labor hours to produce cloth, and 20 labor hours to produce grain. In B, it takes 20 labor hours to produce cloth, and 10 labor hours to produce grain. Assume both the resources are same natural resources are same. Which country should produce grain? No country, A, B, both A and B, tick your answer.

4th last question which trade theory holds that nations can increase their economic well-being by specializing in the production of goods they produce more efficiently than anyone else? So, is it the theory of comparative advantage, is the theory of absolute advantage, is the international product life cycle theory, is the factor endowment theory, what is it? So, once you tick it, then the answers are there. So, let us see what the answers are, if you have done it.

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SOLUTION

1. d
2. c
3. c
4. b

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So, 1 d, 2 c, 3 c and 4 b. How many of you have done correct? You can check it on your own ok!

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Heckscher-Ohlin Theory

- Eli Heckscher and Bertil Ohlin - comparative advantage arises from differences in national **factor endowments**
 - the extent to which a country is endowed with resources like land, labor, and capital
- It predicts that countries will export goods that make intensive use of those factors that are locally abundant, and import goods that make intensive use of factors that are locally scarce
- The model isn't limited to commodities, but also incorporates other production factors such as labor.
- Labor intensive vs capital intensive countries.



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So, now, we come to one of the very important theories in international trade. What is this theory? This theory is named after this Swedish scientist, Heckscher-Ohlin theory is a theory which talks about the comparative advantage that arises from differences in national factor endowments.

What does it say? The comparative advantage that you had learnt in the last lecture last class where, we said about absolute advantage and the comparative advantage, Ricardo's comparative advantage.

So, he says these arise, so that was only where you had two products and two companies right! Now, we can take some factors also. So, two companies, a two products, two countries and two factors let us say land and labor. Now, we will introduce two factors now.

So, Heckscher and Ohlin theory said that the extent of which a country is endowed with resources like land, labor and capital that will decide what trade it will make. It produced that countries will export goods that make intensive use of those factors which are locally abundant.

So, if I have a lot of land if I have a lot of capital labor, then I will tend to export labor intensive or natural sources based on some kind of a goods made of natural resources. And import goods that make intensive use of factors that are locally scarce. So, I will import all high-tech goods because in my country I do not have a high amount of capital. So, I will import those items right!

The model is not limited to commodities, but also incorporates other production factors such as labor. Labor intensive versus capital intensive that is what we were saying you can look at this diagram. So, this is a labor intensive industry so something let us say some production yield or something, and this is a capital intensive. So, to set up this plant it requires a huge amount of you know money and things. So, this is something like what a Heckscher-Ohlin theory says right!



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For example:

- **The United States** has long been a substantial exporter to **Bangladesh**. The top export categories in 2018 were: miscellaneous grain, seeds, fruit (soybeans) (\$455 million), cotton (\$401 million), aircraft (\$304 million), iron and steel (\$297 million), and machinery (\$145 million).
- **In contrast**, Bangladesh excels in the export of goods produced in labor-intensive manufacturing industries. the top import categories in 2018 were: woven apparel (\$3.8 billion), knit apparel (\$1.5 billion), miscellaneous textile articles (\$218 million), headgear (\$180 million), and footwear (\$130 million).

source: Office of the United States Trade Representative

- This reflects Bangladesh's relative abundance of low-cost labor. The United States, which lacks abundant low-cost labor, has been a importer of these goods.

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Let us see the example the United States has long been a substantial exporter to Bangladesh right! In contrast Bangladesh also exports goods right! But what does United States export? The top export categories in 2018, were grains, fruits, seeds, cotton, these are natural now.

Now, comes to non-natural – aircraft, iron steel and missionary. So, this is what the US exports to Bangladesh right! In contrast Bangladesh excels in the export of goods produced in the labor intensive manufacturing industries. So, the top categories are woven apparel that is apparel, knit apparel, miscellaneous textile, so it is textile, headgear and footwear. So, these are some of the items which need a lot of labor right! So, this is the source right!

This reflects that Bangladesh relative abundance of low cost labor and the United States which lacks abundant low cost labor has been a importer of these goods that means Bangladesh US imports those items because it does not have it has a scarcity of labor, and it exports those items in which it has an advantage ok.

For example, aircraft iron steel and missionary right! Some other items also because of the climate advantage for example, fruits, grain, seeds because of the climatic advantage and high use of technology they also are doing good in that.

But if you see the focus on aircraft, iron steel and missionary here, they have a complete advantage because Bangladesh does not have any advantage say in that. So, this is the Heckscher Ohlin theory right! So, today I will wind up (close) here. So, I hope you have understood what we discussed.

So, we spoke about with whom we should trade, how we decide to trade, what products to trade and how much to trade. So, these things we have discussed and we discussed one of the theories by Heckscher-Ohlin theory right!

So, we will meet in the next lecture. Till then bye, and thank you very much.