CHAPTER-01

THEORIES OF INTERNATIONAL TRADE

Introduction:

Trade is also called the exchange of goods economy, is to transfer of the commodities from one person to another. Sometimes trade is also called in simple terms as commerce or financial transaction of barter. Where the transfer of the commodities between the persons took place is called a market. If we through light on the history of trade, the original form of trade was barter, where direct exchange of goods and services took place. With the passage of time the barter system was replaced by the money exchange system in which the commodities are transferred through a medium of exchange such as money. By the invention of money the trade got greatly promoted. The trade between, two traders or two economies is called bilateral trade, while the trade between more than two countries are more than two economies is called multilateral trade. The fundamental trade is to explain why the two persons or the two nations trade with each other respectively. As the nature has distributed the resources unequally on the surface of earth. Therefore, it is quite difficult that each and every nation can produce all the commodities which its people require for their consumption.

International trade is not a new concept; history has already suggested that in the past it has several instances. But with the help of modern techniques, highly advanced transportation, outsourcing of manufacturing goods and services and fast track industrialization, the international trade has got momentum and is growing and spreading very fast. Trade is essential for the satisfaction of human wants. Trade is conducted not only for the sake of earning profile. It also provides services to the consumers. Thus trade is an important social activity because the society needs uninterrupted supply of goods forever increasing and ever changing but never ending human wants. Trade has taken birth with the beginning of human life and shall continue as long as human life exists on the earth. It enhances the living of standard of living of consumers. Thus we can say that trade is a very important social activity.
Different Types of Trade

Trade is broadly divided between two types:
1. Internal or Home or Domestic Trade.
2. External or Foreign or International Trade.

1. Internal Trade: Internal Trade is also known as Home Trade. It took place within the political and geographical boundaries of a country. It can be at local, regional or national level like the trade between Delhi and Mumbai etc. The internal trade can also be subdivided into two groups.
   (A) Wholesale Trade: In this type of trade the commodities are bought in large quantities from the manufacture or the produce and then sold to the retailers for resale to consumers. The wholesaler works like a mediator between the manufacture and the retailer. The wholesaler has its prominent place in this type of trade because both the manufacture and the retailer are dependent upon him.
   (B) Retail Trade: In this trade the wholesaler is the chief distributer who distributer the commodities in small amounts to the retailers and then sellers sold the commodities to the persons for their personal use.

2. External Trade: External trade is also called foreign trade or international trade. In this type of trade the commodities are exchanged between two or more than two countries e.g. if Mr. X who is a trade from one of the states of India, Mumbai sells his goods to Mr. Y who is a trader of New York it is one the
state of U.S.A. Thus, we can very easily understand the concept of international trade or External Trade. It can also be further divided into three main groups:

(A) **Export Trade:** When the commodities are sold from home country to another or foreign country is called export trade e.g. when we sell the Indian goods to U.S.A in this case India is the home country or importer. This is simply all about the export trade.

(B) **Import Trade:** In this case the home country purchase goods from the foreign country and then the home country e.g. India in the importer and foreign country e.g. U.S.A in the exporter. This is called the Import trade.

(C) **Enter pot Trade:** This is some kind of interesting type of trade. In this trade the goods are imported from one country and then after doing some modifications or after furnishing the goods and then again exported to the country from where we have imported the commodities is called enter pot trade.

Now, up to some extent we are in position to answer the questions what is trade? What is International trade and its types? But still we have one question to answer that why international trade does takes places.

Trade originated with human communication from pre-historic times. Trading was the main facility of pre historic people, who bartered goods and services from each other before the innovation of modern day currency. Peter Watson dates the history of long distance commerce from 150,000 years ago. Undoubtedly trade have taken place as the human history dates back. Any how there are no such recorded evidences or theories as for as the international trade is concerned, and it is believed that the economies or any terms which are related to economies had been stated in 1776, when “The wealth of Nations” was published by Adam Smith in 1776. After this a new phenomenon or a new authentic and logical perception about all the economic activities took place in a society. Same with the regional trade or international trade. There is no such authentic theory before Adam Smith, although almost all the school of thoughts before Adam Smith admired the trade
and also gave trade the most important place. Hebrews, Plato, Aristotle the prominent economists of Roman School of thought like LUCIUS ANNAEUS SENECA, Marcus Tullius Cicero, Pliny The Elder etc. have also appreciated the trade in their times and also stated that trade was quite transparent and justifiable in their period. They also proposed that trade is an essential entity of any kind of society. The medieval economic thinkers also shown their reasonable interests towards trade and try to state or express or implement the trade in a moral and ethical manner.

Then, the modern Economic thinkers came into existence by the name of mercantilists and shown great interest towards trade and expressed trade thoroughly in which they stated that the trade took an international character and it became the only basis of domestic and foreign policies of a nation. For the Mercantilists international trade or trade is only way to improve the society in all aspects. They only and only believe on trades, nothing else. They were also in favour of maximum export and minimum import, to collect the largest balance. Thus, it is cleared by the mercantilists that first importance should be gone to foreign trade for obtaining gold and silver from the other countries. The manufactures and other factors of productions came on number second and so on.

In the middle of the 18th century a new system of economic thought developed in France by the name of physiocrates. This system is also known as Physiocracy. The Physiocrates were the sitter criticisers of Mercantilists or Mercantilism who supported foreign trade blindly without understanding the real or natural order. But physiocrates were the followers of natural order and unlike Mercantilists, the physiocrates laid their stress on the importance of agriculture, but they never ignore the importance of trade for the betterment of a society. Finally, we can say that trade remains always the matter of importance for every school of thought or in other words it is clear that trade has great importance from the human existence to till now.
After 1776 when one of the famous classical economists Adam Smith published his book “wealth of nations”. In this book he propounded all facts and queries of the economic world in a very sensitive and logical manner for which he is also known as the father of Economics. Adam Smith almost covered every aspect of the society but if we took one aspect under consideration. That what are the views of Adam Smith about trade. Adam Smith developed his theory of international trade in a realistic manner in which he attacked the mercantilist’s views on what constituted the wealth of nation and what contributes the increasing wealth and welfare of nations. His theory of international trade is called the Absolute Advantage Theory. The economists of classical school badly criticised the doctrines of mercantilism and favoured free trade which benefited all the trading countries. In their theory of international trade the classical economists tried to explain two basic problems.

Adam Smith advocated the Laissez fair economic policy. He argued that the wealth of nation would expand rapidly if the government would check the mercantilist controls over foreign trade. Smith also pointed out one of mercantilist myth that in international trade only one country can gain at the cost of other countries. He stressed his theory mostly on the division of labour in which he assumes that every person would get skilled in his particular field if the division of labour implemented consciously. He also said that everyone will get better off without making any one worse off. Smith model of world trade is as peace model among the countries of the world in which free trade and honesty being the basic contents of the model made it most preferable and productive also.

The Principle of Absolute Advantage refers to the capacity or an ability of a party (an individual, or firm or a country) to produce the maximum goods or services than competitors using the same amount of resources. In the Principles of Absolute Advantage only one input i.e. labour is used. Adam Smith postulated in his book the wealth of Nation’s that under free trade each nation should specialize in the production of those goods that it could produce most efficiently and
some of those would be exported and in exchange of which we can buy some other commodities which we cannot manufacture or whose manufacturing is most costly.

Let us now discuss the Smith model with the help of an example:

For the sake of simplicity here we will take two countries, two commodities and the factor of production will remain same i.e. labour. The countries are U.S.A and India, the commodities are rubber and textiles. The production of these two commodities in these two countries. There are constant returns to scale conditions in both the countries in respect of both the goods. If we talk about the production possibility of the commodities. It is sure that both the countries can produce the commodities if they wish. Smith used the concept of Absolute Advantage that a country's ability to produce goods using less resources as compared to the trading partner is beneficial to both.

The theory is based upon many assumptions:

- Cost of production of two communities in the two countries is absolutely different.
- There are only two countries.
- Both the countries can produce only two goods.
- Labour is homogenous and is only the factor of production.
- Labour can move within a country but immobile internationally.
- Labour is used in fixed proportions in both the countries.
- No Transportation cost occurred.
- Use of constant technology took place.
- Constant cost of production and both the countries involved in barter trade.

Any how the Absolute Advantage model of Adam proved to be the most preferable theory and also the path on which the followers of Adam Smith hold their journey for international trade. Although the absolute advantage model of Adam Smith convincingly showed that two countries could trade and gains from the trade. But the analysis failed to answer that why would the trade occurred between two
countries if one country used absolute advantage in the production of both the commodities.

**Comparative Cost Theory**

After taking the great concern of the Absolute Advantage theory of Adam Smith, David Ricardo opposed the analysis of Adam Smith Theory of Absolute Advantage which is also known as the Ricardian theory of comparative cost in which he argued that even the countries does not have absolute advantage in any line of production over the other, international trade would be beneficial, bringing gains from trade to all the participating countries. Comparative cost advantage model is a refinement of Smith’s theory.

In this respect the model of comparative advantage is quite similar to absolute advantage model but only the difference is that in the comparative advantage model is that if the one country is either efficient in producing both the commodities and the other country is inefficient in producing both the commodities as compared to the first. Still the trade can benefit both the countries on the basis of cost of production which is not described in the Absolute Advantage model.

**Neo- Classical Theory of International Trade**

As the classical approach of International Trade is based upon some unrealistic and many restrictive assumptions. The Neo-classical model of International Trade came to advocate the Theory on some basic and real concepts by which the theory can be extended up to longer and the mystery of trade can be understandable by the help of some of the concepts which are thoroughly discussed by the Neo-classical. The Neo-Classical started their theory with the basic concepts like opportunity cost and production possibility frontier. Then especially the economists like, Haberler, Leontief, Lerner Marshall, Edgeworth and Meade had contributed for the Neo-classical model of international trade and analysed the previous theories of trade and tried to modify the theories then after and have made their model more comprehensive and applicable to all returns to scale conditions in production.
Here we have a brief discussion on the concepts of Neo-classicalism had been put down by the economists of that time confidently to understand the international trade in a logical and comprehensive manner.

**The opportunity cost approach**

The Haberlers theory of opportunity cost is the restatement of Ricardo’s theory of comparative costs in terms of the opportunity cost. A remarkable attempt has been made by Haberler to reformulate the theory of comparative cost advantage. Therefore the theory can be also said the alternate cost theory.

According to the opportunity cost theory if a country can produce either of the commodity x or y, the opportunity cost of the community x is the amount of other community y that must be given up in order to get one additional unit of community x. Thus the exchange ratio between the two commodities is expressed in terms of their opportunity costs. But of despite of that comparative cost theory has been based upon the labour theory of value. This means that the value of the commodity is equal to the amount of labour time involved in the production of that commodity which means that according to the Ricardo’s theory that labour is the only factor of production of the commodity, that there is homogeneity in the labour and labour is used in the fixed same proportions in the production of all the commodities.

Haberler’s opportunity cost theory overcome these short comings and explains the doctrine of comparative cost in terms of what call the substitution curve or what Samuelson terms ‘Productive Possibility curve’ or ‘Transformation curve’ or what Lerner calls ‘Production indifference curve’ or Production Frontier.

Some of the important assumptions have been made by Haberler are as under:

1. Only two countries say A and B took place in trade according to this theory.
2. Two commodities and two factors of production (labour and capital are taken).
3. The supply of Factors is fixed.
4. There is full employment.
5. Free trade exists between the two countries.
6. The price of each factor equals its marginal value productivity in each employment.
Under these heavy gains from trade can be determined by the different cost conditions, the trade under constant opportunity cost, the trade under increasing opportunity cost and the trade under decreasing opportunity cost.

**Mills Theory of Reciprocal Demand**

J.S Mill is one of most renounced and optimistic by nature. That is why particularly in his theory of reciprocal demand the openly criticized the theory of David Ricardo and admitted and reformulated the theory of comparative cost advantage in which he claims that the Ricardo did not pay the attention to the ratio or rate at which one commodity would exchange for the other commodity. The term ‘reciprocal demand’ was introduced by mill to explain the Determination of the equilibrium terms of trade. It is used to indicate a country’s demands for one community in terms of the quantities of the other commodities it is prepared to give up an exchange.

After restating the Ricardian theory of comparative cost by J.S Mill, “Instead of taking as given the output of each commodity in two countries, with the labourer costs different, he accused a given amount of labour in which each country, but different outputs. Thus his formulation ran in terms of comparative advantages or comparative effectiveness of labour as contrasted with Ricardo’s comparative labour cost\(^2\). Mills Theory of Reciprocal demand is based on the following assumptions.

1. In this model two countries, two commodities and only one factor of production took place. \((2 \times 2 \times 1)\) model.
2. There are constant Returns to scale.
3. Transportations costs are totally absent.
4. There is perfect competition.
5. Full employment exists in both the countries.
6. Absence of restrictions, free trade book place between the two countries.

**Modern Theory of International Trade**

The classical theory of international trade bitterly criticized by Bertil Ohlin in his famous book ‘Interregional and International Trade’ (1933) and then formulated the General equilibrium or factor Endowment theory of International trade. It is also known as the modern theory of International trade or the Hecksher-Ohlin (H.O)
Theorem. It was in fact the Ohlin teacher Eli Hecksher who very first proposed the idea in 1919 that the trade in a result in the difference in factor endowments in different countries and then Ohlin carry the theory forward to build the theory of modern international trade.

According to this theory the Relative availability of factor supplies mainly determines the pattern of production, specialization and trade among the regions. Different countries or the different Regions lane the different factor endowments and supplies of factors. Some countries are abundant in capital and some have much labour in them. Now the theory says that the countries that are rich in capital will export capital intensive goods and the countries which have much labour will export labour intensive goods.

According to Ohlin the main cause of trade between the Regions is the difference in prices of the commodities. He admitted that the trade like situation came into forefront only after when we analyse that some commodities can be brought very easily inside the country whereas the some are very difficult to produce even at the very high prices. Thus the trade proves to be quite beneficial for the trading countries, as per this theory also on its realistic assumptions.

The following assumptions have been made in order to simplify the statement of the Heckscher-Ohlin theorem.

1. The model is carried up by the two countries, two commodities and the two factors of production (labour and capital).
2. In commodity and factor markets there exists the perfect competition.
3. The production functions are different for different commodities.
4. Each commodity is produced by the constant returns to scale.
5. Transport and Insurance costs are free.
6. There is an immobility in the factors of production between the countries but freely mobile within the countries.
7. There is full employment of both the factors of production in each country.
8. The theory openly advocates the free trade between the two countries.
9. The technological knowledge remains unchanged.
10. Identical Demand Patterns and Preferences of consumers in both the countries.
The Heckscher-Ohlin theorem can be discussed on the two main basis are, the factor abundance (or scarcity) in terms of the Price criterion: and the factor abundance (or scarcity) in terms of physical criterion. Any how the classical and modern theories of international trade leads us towards the meaningful concepts of international trade but both the classical and modern concepts of trade are diagnosed by several number of limitations. Then with the passage of time these theories are modified on different aspects by different modern thinkers some of them are given as:-

**The Kravis Theory of Availability**

In 1956, I.B. Kravis⁴, on American Economist, questioned the assumptions of the classical theory that technology was the same in all trading countries. While testing the H.O theory he wanted to find out whether labour intensive exports were produced by cheap labour. But he found in almost every country the exporting industries paid a very high wages to the labourers. According to him a country produces and exports those goods which it had available”, that is the goods developed by its innovators and entrepreneurs. Thus the Kravis propounded the theory that the composition of commodity of trade is determined primarily by ‘availability’ which means an elastic supply. Trade only take place in those commodities which are “not available at home”. By this phrase he means

a) The country will import those goods which are not available in the country in absolute sense e.g. diamonds.

b) And the country has to export those goods which are available more than the domestic needs.

There are some factors responsible for the availability has been explained by Kravis are as:


- The trade pattern of a country is thus determined by the availability of scarce natural resources.

- The second factor is the availability of technical knowledge possessed by a country for producing the commodities for the purpose of production. The third factor confers the temporary monopoly of
production by the product differentiation by which the producing country can export its commodities. Until the importing countries imitates. The Government policies proved to somewhat obstruction which leads the trade on a negative path. The unavailability of goods is affected mainly by the lack of natural resources, technical knowledge, and product differentiation and by the protectionist policies of the government.

Linder’s Theory of the Volume of Trade

The Swedish economist, S.B Linder has propounded a theory that explains the volume of trade in manufactures as proportion of national income between different pairs of trading countries. Staffan Burenstam Linder discussed the possible resolution to the Leontief Paradox. According to Linder there was a distinction made between the trades exports can be explained in the terms of relative natural resources endowments, whereas the manufactures exports cannot be explained like this. For the manufactures exports there are many complex factors such as technological superiority, managerial skills and economies of scale which is considered to be imprecise and unpredictable. He therefore does not explain the precise composition of manufactures in trade. Instead of it Linder proposed a theory concerning the volume manufactures trade is in proportion of natural income between different pairs of trading partners.

Thus Linder analytically describe to his theory that the Pre-condition for trade in manufacture as an export is the presence of home demand and this is because of some basic reasons.

a) Foreign trade is only the extension of domestic trade.

b) Existing industries are fully equipped with innovating centres.

c) He also admitted that the foreign market is risky and the domestic market is safe in a number of aspects. Therefore producers do not wish to depend upon the foreign markets alone. Manufactures export possibility occurs due to the domestic demand.
Therefore the country will only export those commodities for which the domestic markets has the highest demand. Thus the economists of scale are achieved due to the largest market demand which later on reduces the cost of production and enter into the foreign markets.

According to Linder the country will preferably export to those countries whose income levels and demand patterns are similar to the exporting country. This is known as ‘Preferre nee similarity’ according to him. This preference similarity leads to the overlapping of demands.

Linder Further argues that the other things being equal in the given country. The group of higher income consumers demand the high quality goods and those who belong to the group of lower incomes demands the low quality goods. The same rule applies also at the international level where the low-level income countries will tend to demand the low quality products and the high income countries demands high quality goods. But this does not mean that higher income countries do not demand the lower quality of products and the lower immune countries will not demand for higher quality of goods. In fact every country has the inequality in the distribution of income among the different societies of the country. High and low incomes groups are present everywhere. That is why preference similarity occurs in different countries and the different countries overlap. As a result the trade relations among the countries took place and a variety of manufactured goods are produced after meeting its domestic demand.

**Posner’s Imitation Gap or Technological Gap Theory**

As the Ricardian and Heckscher-Ohlin theories are based on the assumption that the technology is some in all the trading countries, but they failed to analyse the effort of technological change on trade. Later on Kravis very comprehensively pointed out the effect of technological change on availability of exports. But M.V Posner forwarded the theory of Kravis in an article in 1961 and analysed the effect of technology on trade. The process of technological change leads to the imitation gap which influences the patterns of international trade.
The Posner’s theory of Technological Gap is based on the following assumptions.

1. There are two countries.
2. The factors endowments are similar in both the countries.
3. Condition of demand is similar in both the countries.
4. Both the countries have different technologies.

The imitations Gap theory explains the sequence of innovation and imitation as it affects the pattern of trade. When a firm came into existence with the products which become profitable in the domestic market and enjoys in temporary monopoly. Thus the production will be expended by the exporting country and sold out in the foreign markets and has an absolute advantage in this product. Then the imitation will be encouraged in the other countries when the innovating firm carved the great profit of its own. But till the importing country learns to produce the commodity the exporting will continue its exports and have a comparative advantage in its production. Even during the period of imitation gap the imports of the new product in the other country continued.

Posner proposed that the imitation gap theory has basic three components.

‘Foreign Reaction Lag’:- It is the time taken by the innovating firm to start the production of new product.

Secondly the ‘Domestic Reaction Lag’ in which the other domestic producers take their time to produce the products and follow the suitable path and establish a hold on the domestic market. The third is the ‘Learning Period’ in which the time taken by the domestic producers to learn about the techniques of producing the new products and then selling it into the domestic markets. All these three components comprising form an imitation lag.

‘Demand Lag’ is also present there which means the time taken by the consumers to acquire the taste of the new products. Due to the demand lag the imports of the new product will not continue by the full duration of the imitation lag.

Then after subtracting the demand lag from the imitation gap the period will be obtained during which its imports will continue. There is a confrontation in the
production of local producers and the local consumers if the local producers produced the new products very quickly but the consumers are slowly adopt the new product, then the imitation gap will be shortened and the period for which imports will take place will be reduced. But if the local producers are unable to produce according to the consumer’s consumption in this case, the imitation gap will be lengthened and the country will continue to import of products for a long time. But the imports of new products will stop fully when the imitation lag equals the demand lag.

Further the Posner also formulated a new concept ‘Dynamism’ which is build by the combination of two concepts of innovation and imitation lag. Dynamism according to him in international trade as a function of rate at which the country produces the number of new products it introduces per unit of time and also included the speed by which it imitates the foreign innovations.

Posner also confirmed it that if both the trading countries have an equal degree of dynamism, they will have trade without any kind of Balance of payments difficulties. As the innovation from each country quickly imitated in the other leads the all round development of both the countries. If the dynamism of one country is more than that of the other this will definitely create the environment of competitiveness and then both the countries will try to do their best in terms of production and to export more and more to the other countries as a result will ultimately improve it themselves.

Thus the imitation gap theory is more realistic then the traditional theories because it analyse the affects of technology on the pattern of trade.

**Vernon’s Product Cycle Theory**

In 1966 Prof. Raymond Vernon in an article put forth the theory of product cycle Hypothesis. The theory states that the new products moves through a cycle or a series of stages in the course of its development, as with the changing comparative advantage through the cycle. This theory is based on the experience of U.S Economy and is based upon some important assumptions:

1. The Development of new products by the Firms made on the basis of real or imaginised monopolistic advantages.
2. The innovators are provided by the stimulus to innovate the new product by the need and opportunities of the domestic market.

3. The innovators are unaware about the conditions and situations in the foreign markets whether in the advanced or in the developing countries.

4. The new products are firstly produced in the capital rich countries.

The theory suggests that early in the products life cycle all the parts and labour associated with the product come from the area in which it was invented. When the product is adopted and is used very widely in the markets the movement of the production took place away from the point of origin. In some situations, the product becomes an item that is imported by its original country of invention. A very presentable example of this is the invention, production and growth of the personal computers with respect to the limited states.

This model is usually applied to the labour saving and capital using products very first developed in the high income groups.

The goods are produced and consumed in the U.S in the new product stage. In second stage the mass production techniques are introduced as a result the demand of the goods in foreign countries expands and this state is called the maturing product stage. Then after this the production to the developing countries and then export the product to the developed nations this stage is known as standardized product stage. This model comprehensively demonstrates the dynamic comparative demonstrates the dynamic comparative advantage. Thus the country having the comparative advantage in the production of the new product changes from the innovating country to the developing countries.

The product life cycle is further elaborated with the help of five stages.

- Introduction.
- Growths.
- Maturity.
- Saturation.
- Decline.
Introduction: Introduction is the first stage of the various life cycle Hypothesis. In this stage he proposed the products are very first introduced.

Kenen’s Theory of Human Capital: P.B Kenen in an article in 1965 examined the Role of human capital in international trade. The main theme of this theory is the human capital instead of the physical capital. According to this theory Human Capital is created by investing in the training and education of the labour force. The investment like education tends to increase the productivity of labour force. The education and training differentiates the wages among the labourers.

According to Kenen, land and labour are the two original factors of production which cannot be improved without the application of capital. He propounded that the production increases when the improved labour is combined with the improved land and all this happened due to the imparting of Education and training among the labour force.

Generally the different countries have different factors endowments and having different sources of land, labour and capital. If the resource endowments between the two countries are same they may differ in their production possibility due to the allocation of the resources.

Gravity Model

The top 10 U.S Trading partners are European Nations. But the question here arises that why the United States heavenly trade with these countries. The answer is that these countries were the highest values of Gross Domestic Product (GDP) which measures the total value of all goods and services produced in an economy.

There is a strong empirical Relationship between the size of a countries economy and the volume of both its imports and exports.

The equation has been framed by the economists of which accurately and firmly period of volume of trade between any two countries.

\[ T_{ij} = A \times Y_i \times Y_j / D_{ij} \]

Where A is the constant form, Tij is the volume value of trade between country i and country J, Yi is the country’s i GDP. Yj is the country J’s GDP and Dij is
the distance between the two countries. That is the value of trade between any two countries is proportional other things equal to the products of the two countries' GDP’s and diminishes with the distance between the two countries.

The above given equation is known as the Gravity model of world trade. The name has been put down for this model by the Newton Law of Gravitation in which he proves that the gravitational attraction between any two objects is proportional to the product of their masses and diminishes with distance. Thus like as the trade between any two countries is other things equal proportional to the product of their GDP’s and diminishes with distance.

References: