

Module 3

Theories of International Business

3.1. THEORIES OF INTERNATIONAL TRADE/BUSINESS

3.1.1. Introduction

International business is well supported by the concept of laissez faire. No doubt, it has helped in improving the economic conditions of many nations. Also, the barriers to trade lowered the profit margins and paved way for other options to export. It promoted the setting up of subsidiaries in foreign nations with the help of FDI. Here, it is vital to know how the business alliances, global operations of multinational corporations and the economic scenario of the domestic and foreign countries are affected by FDI and international trade. Occasionally, various theories were proposed to give a foundation to international trade.

Generally, theories of international or foreign trade focus on prominent features of the complicated system. The focus is generally on the specific features of the trade. There is a need to analyse various international trade theories for finding out the determinants and the associated patterns of trade.

There are four phases of the development of the international trade theories. The very first stage is called the Mercantilist stage or the Pre-classical stage. It continued from the middle ages to 1750s. The next stage was the classical stage which continued for approximately 150 years. It also coincided with Europe's Industrial Revolution. The third stage was called the contemporary or modern trade theory and the last one was the Neo-classical stage.

The timeline when major international trade theories were proposed is depicted through Figure 3.1. Scholars continuously strive to refine the existing theories and propose novel ones.

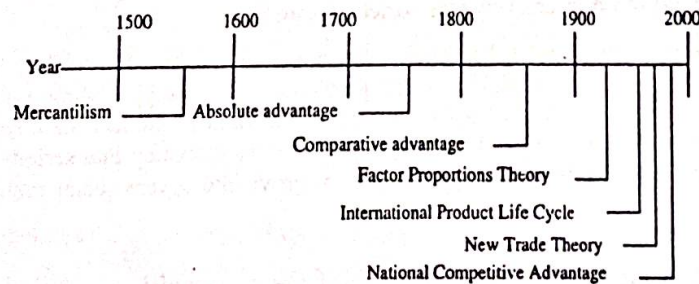


Figure 3.1: Trade Theory Timeline

3.1.2. Relevance of International Trade Theories

The following points denote the relevance of international trade theories:

- 1) **Location:** The basic premises of all international trade theories are that every nation holds specific advantages in producing different goods or services. Hence, in order to make the business lucrative, it is quite sensible to shift the activities of production to nations, where they can be carried out in the most efficient manner. For example, France can be chosen for efficient designing of products, Germany can be chosen for the effective manufacturing of products and China can be chosen for the final assembling of products. It results in the formation of an international web of activities of production where they are carried out at different places. However, while doing so, the considerations like factor endowment, comparative advantage, etc., have to be kept in mind. In case, the firm is not able to take the location decisions, then it is likely to lag behind the other firms.

- 2) **First-Mover Implications:** The new trade theory states that the first-movers in the manufacturing of a new product enjoy the dominance in that product all over the world. It is specifically true in case of where the international market can successfully endorse only a few players, e.g., the aerospace industry. But first-mover advantage is also true in case of less concentrated sectors, e.g., water purifiers. Here, the implicit message for the firms is that in order to enjoy first-mover advantage, the company has to try new venture, regardless of the fact that even it has to face losses for several years. The main focus here is to anticipate the demand, achieve cost advantage in terms of quantity, establish a brand image and ultimately the firm can enjoy a lasting advantage over the competitors.

- 3) **Government Policy:** The international trade theories are vital for the companies which deal in business across borders. Business can strongly influence the trade policy of the government and can promote or restrict free trade. However, it is usually claimed under the international trade theories that a nation which supports free trade can flourish; yet, the same cannot always be true for the companies. But several firms support this view and take stride towards open markets.

3.1.3. Role of International Trade Theories in the Evolution of International Business

The economic development of the countries results in the proliferation of international business or international trade or it can be said that the international trade/business is the outcome of economic development. Trade theories evolved to show the manner in which the countries can resolve their economic problems. During 16-18th century, Netherlands, France, Spain and Britain were highly developed where the government had high economic interventions.

These governments were mainly interested in accumulating money and power. The economic theory which supported these objectives was called Mercantilism. Mercantilists had a belief that a country can enjoy rapid growth by concentrating more on exports than imports.

The income will be in the form of a real inflow of gold. However, there was a fixed amount of gold for a period, and hence, it was not possible for all the countries to enjoy inflow of gold at the same time. Also, profits gained by a nation might have to be at the cost of others. For this reason, mercantilists promoted exports and restricted imports.

However, Adam Smith challenged the point of view of Mercantilists. He supported the idea of free trade which had its roots in the theory of absolute advantage of nation. He has shown that the nations who are availing the advantages of free international trade will share the benefits of international division of specialisation and labour.

David Ricardo further refined Smith's theory. He proposed the theory of comparative advantage to show that it is possible to have a mutually beneficial trade even if one country was more proficient in producing the goods independently. He argued that the countries specialise in the sector where the opportunity cost is low and in the trading based on comparative advantage, its benefits are enjoyed by all.

Two economists from Sweden, Eli Heckscher and Bertil Ohlin proposed a model of factor endowment in 1930s for indepth study of international trade. According to them, the variations in factor endowment of the countries form the basis of the international trade. This difference in factor endowment renders comparative advantage to the countries in different sectors, and it is also responsible for relative difference in prices.

Hence, every nation indulges in export of goods which are available in huge quantity and is cheap to produce, and will import the goods which are scarce and expensive to produce. In this manner, every country will mutually gain through the international trade.

The theory of international product life cycle, proposed by Raymond Vernon, explains the trade which emerges out of differences in technology. He argued that during the preliminary stage of production, skilled labour is required. However, this can be replaced by skilled labour when the product is standardised and accepted by the people. For this reason, the developed countries that designed the products hold comparative advantage which shifts towards countries with lower wage.

Stefan Linder proposed the theory of overlapping demand. In this theory, he explained intra-industry trade by stating that the countries which have same levels of per capita income will be engaged in more international trade of manufactured goods in comparison to those nations whose per capita income level is not similar.

Michael Porter proposed the theory of competitive advantage of nation for explaining modern international trade. According to him, competitiveness and degree of international trade depends upon four factors which are summarised in the Porter Diamond.

Hence, a study of international trade theories and its impact on the development of international trade reveals that the development of various trade theories help in ascertaining the evolution of international business.

3.1.4. Types of International Trade Theories

There are various theories for foreign/international trade. These all theories are as follows:

- 1) Mercantilism Theory,
- 2) Classical Trade Theory,
 - a) Adam Smith's Absolute Cost Advantage Theory
 - b) Ricardo's Comparative Cost Advantage Theory
- 3) Heckscher Ohlin's Factor Endowment Theory,
- 4) Haberler's Opportunity Cost Theory,
- 5) Krugman's New Trade Theory,
- 6) Vernon's International Product Life Cycle Theory, and
- 7) Porter's National Competitive Advantage Theory.

3.1.5. Mercantilism Theory

The Mercantilism theory of international trade which evolved in mid-16th century in England stated that the main pillars for a sound economy of a country are gold and silver. These were considered as the backbone for solid commercial growth. During the era when this theory emerged, the main currencies for international trade were gold and silver. That means countries had to spend gold and silver to import products whereas they earned them when they exported products.

Mercantilism states that the volume of export should be greater than the total volume of import for a country. To achieve this, the government puts trade barriers on imports and promoted the products whose survival was difficult in home as well as overseas markets. The mercantilism theory was intended mainly for the welfare of colonial powers (like Sri Lanka which was under British rule). These powers imported the raw materials at cheaper rates from the colonies which were otherwise expensive or not easily available to them. After this, they used these colonies as their export markets for the finished products with the aim to earn greater profits and strengthen the economy of mother country. In a way, the colonial powers monopolised the colonial trade. In addition, they put restrictions on colonies to produce goods. The colonies were forced to import expensive finished products and export cheap raw materials. Not only British, but the French, Spanish and Portuguese did the same with their colonies in Africa, Asia, and America. The British colonies showed dissatisfaction due to these restrictions which later gave rise to the American Revolution.

Few significant terminologies which are used even today despite the contradictions are 'favourable' and 'unfavourable' balance of trade. Favourable balance of trade occurs when the export is greater than imports. Whereas, unfavourable balance of trade which is also known as trade deficit means the export is less than import.

Though 'favourable' means beneficial and 'unfavourable' signifies adverse, it is not actually so in reality. A country which is maintaining a favourable balance of trade might be importing goods of lesser value than those of exported goods. The trade difference in mercantilist period was compensated by gold transfer but in modern times, the surplus country has to either hold the currency of the deficit country or invest in the currency in its own denominations. The credit granted by the surplus country to the deficit country may never be detrimental for

Neo-Mercantilism

When countries maintain or try to maintain favourable balance of trade with a social or political motive, it is termed as neo-mercantilism. A social motive may be to attain full employment by promoting surplus production in the companies and exporting the same. A political motive is to build or maintain political impact in a particular area by selling more surplus in that area than purchasing from it. Countries sometimes grant credit or extend loans to countries so that they can use them as a purchaser for the surplus production.

A relatively new term, i.e., neo-mercantilism possesses ideologies and techniques of neoclassical economics and is thus at variance from traditional mercantilism. It acclaims that the new industries should be levied with high taxes and tariffs carefully. It also promotes specialisation of national industries for overall economic development of all countries. In present times, workers in developed countries are supporting mercantilist methods to sustain increased wages. On the other hand, renowned economists and policymakers disapprove these methods.

3.1.6. Classical Trade Theory

Adam Smith and David Ricardo proposed the classical theory of international trade which states the advantages of trade and international trade specialisation scenario. As stated by the classical trade theory, international trade depends upon geographic assumptions. It says that a country which is very rich in a particular resource will enjoy a cost advantage in production process and this will lay the foundation for international trade and its specialisation.

The classical theory also states that countries produce surplus of those goods whose production is well-matched and is in accordance with their environment, natural resources, arable land, transportation, funds, etc. As these goods are produced more than the domestic demand, they are exported to overseas market against the imported goods whose production does not suit its infrastructure or natural resources. It can be said that countries produce surplus of only those goods which provide them cost advantage and import the goods with no cost advantage.

Assumptions of Classical Theory

- 1) **Full Employment and Free Trade:** Both the foundations of classical theory, i.e., full employment and free trade are considered unrealistic. On one hand, full employment is disapproved by economists and experts; while on the other hand, free trade has lost its applicability in the modern world due to numerous trade barriers imposed by almost all countries.
- 2) **Homogeneity of costs:** According to the classical theory same labour per unit cost is applicable to production of additional units of a product. Though the cost ratios in two countries for production of goods are same, international trade is possible only when the ratios differ. There may be distinct worker classes being paid unequally or similar workers being paid differently based on their industries. According to Ricardo, labour should be the only factor to be considered. If done so, prices of locally manufactured products will be impacted by wage rates and not by the factor analysed by Ricardo, i.e., comparative costs of labour quantity. Hence, it can be concluded that cost of non-homogenous labour cannot be compared as it is an unrealistic assumption.
- 3) **Law of Constant Return:** The Ricardian theory says that countries will continue to receive constant return through specialisation. But, this has been criticised as it does not focus on the fact that cost of labour at some point of time will come at equal levels for both countries. For example, country 'A' produces tea and country, 'B' produces coffee due to their respective cost advantages. In due course of time, the volume of production will rise and so will per unit cost of production. This will result in a situation where the proportional production cost in both the countries for two commodities will equate and countries will no longer reap specialisation benefits. Still, this criticism is not concrete as comparative advantage of countries also influences the returns on specialisation.
- 4) **Internal Mobility and External Immobility:** Classical theory assumes that factors of production are internally mobile, and internationally immobile. This assumption is considered baseless and not based on facts. This is because labour and capital are never completely mobile internally. Irregularities and disparities are always noticeable in wages and rate of interest depending on the location and industry. Also, these factors are not completely immobile internationally because labour and capital often migrate beyond national boundaries.

- 5) **Two Countries, Two Commodities:** Though it does not falsify the utility of classical theory, but it is quite unrealistic to assume the world with two countries and two commodities.
- 6) **Transport Cost:** Classical theory completely ignores transport cost. Even this assumption of the theory is immensely criticised as transportation costs exist in all the production processes and are sometimes greater than the cost of production. An organisation sends its product in overseas market only when the transportation cost involved is lesser than the difference in cost of production among the two countries. All these facts show the significance of transport cost.
- 7) **Static and Dynamics:** The advantages possessed by countries are monitored statically, i.e., at one point in time by the theories of absolute and comparative advantages. On the other hand, the advantages and disadvantages in production are provided by relative conditions which are dynamic in nature.
- 8) **Services:** Though services account for a significant part of the worldwide trade, the classical theory focuses mainly on products and ignores services. This assumption does not lessen the usefulness of the theory, as services necessarily include resources which are employed in producing them.

3.1.6.1. Theory of Absolute Cost Advantage

In 1776, the absolute cost theory was proposed by Adam Smith. Also known as absolute cost advantage theory, it states that a country should look to achieve specialisation in the product in which it enjoys cost advantage through increased efficiency. (The theory applied basically on England and France. Smith stated that both England and France should achieve specialisation in textiles and wine respectively. In this way, England and France could exchange textiles and wine as per their consumption. Smith believed that countries can benefit from international trade if they specialise in their cost advantageous products. According to him, the products which can be imported at low cost should not be produced by a country.

As a country cannot survive through inefficient industries, the resources tend to shift towards efficient ones. Following are the ways in which countries can be more efficient with the help of specialisation:

- 1) When the workforce does the same work repeatedly, they develop their skills and become more efficient.
- 2) Doing the same task or producing the same product reduces chances of time-wastage in moving from one product to another.
- 3) Continuing a production process for longer durations ensures development of new and improved techniques for working.

Specialisation in products enables countries to increase their imports as they can afford them. A country thus has to choose among various products to opt for specialisation. According to Adam Smith, it is mostly decided by the market but it has to be either a natural or an acquired advantage.

Assumptions of Absolute Cost Advantage Theory

Comparative cost advantage theory has the following assumptions:

- 1) **Two Countries, Two Commodities:** The theory assumes that there are always two countries and two commodities between which comparison is made.
- 2) **Efficiency Objective:** Efficiency is presumed as the main objective under the absolute advantage theory. However, it is not always the objective of the country to achieve efficiency.
- 3) **Zero Transportation Costs:** Under this theory, the cost of transportation between and within the countries is assumed to be zero.
- 4) **Factor Mobility/Immobility:** As per the absolute advantage theory, the movement of resources inside a country is presumed to be mobile; whereas, it is considered immobile in case the movement is between the nations.
- 5) **Full Employment:** It is assumed under absolute advantage theory that every country has full employment.

Natural Advantage

Easy availability of certain natural endowment, favourable climate, and skilled workforce provides a country with natural advantage in production of a particular product. The products whose production can provide natural advantage depends a lot on the climatic conditions of the country.

For example, if country A's climate is favourable for tea and not wheat, it would get a natural advantage by producing tea. If in case it wants to start producing wheat which is not supported by its climate, it would have to sacrifice the land which is being used for tea cultivation thereby decreasing the output.

On the other hand, country B has favourable climate for wheat. Planning to produce tea will not be a good decision for country B. The common way out here for both the countries is to keep producing the products of natural advantage and import the products which they cannot produce due to unfavourable climate. The volume of trade between two countries depends on the degree of variance between their climates. Every country has to import some product or the other from other countries. There is no single self-sufficient country which does not depend on other countries. Soil combined with geographical factors is another natural advantage countries can have.

Acquired Advantage

In the current scenario of international trade, manufactured products and services account for a lot more than agricultural products. The acquired advantage of countries which are competitive in manufacturing of products and services lies in their product or the technology used in manufacturing procedure. Advanced technology distinguishes a homogenous product from products of the competitors. A good example of acquired advantage can be Japan which instead of importing coal and iron (basic elements to produce steel), exported steel. This was possible due to the advanced technology of automation and procedures which save raw material.

3.1.6.2. Comparative Cost Advantage Theory: Ricardian Theory

The comparative cost theory was propounded by David Ricardo, who further developed the theory given by Adam Smith. The comparative cost theory explored the outcomes in case of a country having absolute advantage in all the products. Smith believed there will be no advantage or gain from foreign trade for such country.

Ricardo believed that countries tend to produce surplus of those goods in which they have a comparative cost advantage and import the goods which are not much cost advantageous comparatively. He states that specialisation is entirely based upon comparative cost advantages.

The country entering into trade contract with another country which is more efficient in all the product lines will also reap benefits of international trade. It is because every country has different comparative costs due to ample availability of resources. These resources are in distinct proportions with the product demand in various countries.

This theory promotes the practice of free international trade for global welfare and development. It has considered only the labour cost of production as a factor of production. The non-labour factors were completely ignored. Later, J.S. Mill introduced the principle of "equation of reciprocal demand" which was considered a significant inclusion in the comparative cost theory.

Difference between Absolute Cost Advantage Theory and Comparative Cost Advantage Theory

Absolute Cost Advantage	Comparative Cost Advantage
1) The capability of a nation to produce goods at a low price is described under this theory.	1) The capability of a nation to produce goods at low opportunity cost is described under this theory.
2) Under this theory, the two nations are not mutually benefited by trading.	2) Under this theory, the two nations are mutually benefited by trading.
3) Under this theory, a higher quantity of goods using the resources available in the country is produced by a nation.	3) Under this theory, a better quality of goods using the given amount of resources is produced by a nation.
4) As per this theory, the advantage is gained by producing goods in abundant quantity.	4) This theory takes into consideration the nation's overall production under a certain period of time.

Features of Comparative Cost Advantage Theory

The features of comparative cost advantage theory are explained as follows:

- 1) **Multiplicity of Organisations and Activities:** The comparative cost advantage theory becomes more relevant when there is not one but multiple organisations along with a number of activities that those

- 2) **Two-Edged Sword:** Comparison between two or more nations and between two or more activities is done under comparative advantage statement. The model of 'two commodities two countries' can be stretched to every country and commodity. Hence, every country will produce and export those goods in which it holds comparative advantage and import from countries where goods are available at lower prices.
- 3) **Sign of Mixed Partial:** It is explained earlier that the comparative advantage theory is relevant when there is more than one organisation or activity involved. Based on this feature, it can be said that this theory is based on the sign of mixed partial derivative regarding the organisations and its activities.
- 4) **Dependence of Comparative Advantage on Relative Value:** The value obtained by the various activities is required to be compared and measured while deciding to allocate activities to organisations as per the theory of comparative advantage. Particularly, the direction of comparative advantage can be influenced by the change in the value of exchange between any two activities.
- 5) **Not to Create Reasons to Exist:** The theory of comparative advantage is relevant for those organisations which have a reason to exist independently and have to decide which activity they want to perform. It does not mean that an all new organisational set-up needs to be formed; neither the theory intends to change the organisational structure of the existing firm. The reason for existence of countries is not justified under this theory. The concept of comparative advantage theory actually suggests about the particular activities in which a country should specialise so as to enjoy comparative cost advantage. However, huge profits can be gained when people migrate from one country to another. But this would be possible when greater productivity is ensured by the economic and legal environment of the country in which people migrate.
- 6) **Express in Terms of Money and Labour:** Since the total cost can be expressed in monetary terms; therefore, the labour terms can also be stated in monetary terms. Comparative advantage in monetary terms would form the basis for specialisation to occur.
- 7) **No Transport Cost is Unrealistic:** The theory of comparative advantage is unrealistic since it assumes that the cost of transportation between the countries and inside the countries is zero. It is also stated that upon the addition of the cost of transportation to the production cost, only those goods will be produced by countries in which they hold cost advantage. For example, India may be more efficient in production of 'product A' as compared to USA, but when the cost of transportation (involved in export) is added to the cost of production, India loses the cost advantage. However, India holds greater advantage in terms of selling goods to its bordering nations.

Assumptions of Comparative Cost Advantage Theory

The following assumptions are the basis of comparative cost advantage theory:

- 1) Two products that are being produced by two countries.
- 2) Only one factor of production, i.e., labour is considered and units of labour determine the production cost.
- 3) Marginal productivity equals average productivity and the factor-output ratio remains constant.
- 4) The labour units are homogenous.
- 5) The law of constant returns applies to production.
- 6) Factors of production are internally mobile but externally immobile.
- 7) Transportation cost is zero.
- 8) Government does not have control on foreign trade.
- 9) Countries engaged in foreign trade have full employment.
- 10) Goods as well as factor market have perfect competition.
- 11) Balance of trade prevails.

Criticism of Comparative Cost Advantage Theory

The comparative cost advantage theory is criticised as follows:

- 1) **Restrictive Model:** There are a number of products and countries which are considered under international trade. However, this theory assumes only two nations and two products.
- 2) **Labour Theory of Value:** The labour value theory is not practical since it has a number of shortcomings. However, comparative advantage theory uses the labour theory to determine the products' value.
- 3) **Full Employment:** It is assumed under comparative advantage theory that every country has full employment. However, the reality is altogether different. There is likely to be a change in the cost of

- 4) **Ignore Transportation Costs:** While finding out the differences in comparative costs, the costs of transportation are totally ignored.
- 5) **Demand is Ignored:** The aspect of demand in international trade is not considered under the theory of comparative advantage. This theory only relies on the supply aspect of international trade.

3.1.6.3. Comparative Cost Advantage with Money

Under the Ricardian comparative costs principle, an assumption is taken that money does not exist and production is measured through inputs of labour. In the modern money exchange system, all exchange of goods occurs through the medium of money. So it is not the comparative differences in labour costs alone, but also the absolute differences in prices that influence the international trade.

Some writers, including Angeil, held the view that the introduction of prices, would lead to conclusions different from those given by the Mill-Ricardo theory. Taussig, however, discounted such a view. He stressed that the comparative differences in labour cost of production can be easily converted into money terms, without in any way, affecting the exchange relations between commodities.

We suppose that 10 days' labour can help produce 250 units of commodity X in country A. 10 days' labour in the same country can procure also 250 units of commodity Y. In the other country B, 10 days' labour produces 100 units of X and 10 days' labour can yield 240 units of Y commodity.

This illustration shows that country A has an absolute advantage in producing both the commodities. But she has a comparative advantage over B in the production of X while B has a lesser comparative disadvantage in the production of Y. Consequently, A will specialize in the production and export of X and B will specialize in Y commodity. Assuming that the daily money wage in countries A and B are respectively Rs. 10 and Rs. 80, this illustration can be converted into money terms.

Table 3.1 shows that per unit money cost of producing X is lower in A than in B. On the opposite, country B can produce commodity Y at a relatively lower per unit money cost. Therefore, country A will specialize in the production of X, while country B will specialize in producing Y commodity. The conclusion is in complete harmony with the Ricardian comparative costs theory.

It may, however, be criticised on the ground that the wage rates in the two countries have been arbitrarily chosen. In fact, this criticism is not valid. There are specific upper and lower limits within which the ratio of money wages between two countries must lie. There is nothing arbitrary about these limits as these are fixed by the comparative efficiency of labour in each country.

Table 3.1: Comparative Costs Expressed in Money Terms

Country	Labour Input (in man-days)	Daily Wage (in ₹)	Total Wage (in ₹)	Total Product	Money Cost or Supply Price per Unit (in ₹)
A	10	100	1000	250 units of X	4.00
	10	100	1000	250 units of Y	4.00
B	10	80	800	100 units of X	8.00
	10	80	800	240 units of Y	3.33

In terms of output, country A has an advantage over B in the production of commodity X as measured by (250 units of X in A / 100 units of X in B) = 2.5. If now daily wage in country B is assumed as Rs. 80, the daily wage in country A at the maximum can be 2.5 times the daily wage in country B, i.e., Rs. 200. The lower limit is determined by the minimum advantage that country B has over country A in the production of commodity Y. It is measured as (250 units of Y in A / 240 units of Y in B) = 25/24.

Given a daily wage of Rs. 80 in country B, the minimum limit of daily wage in country A will be $80 \times (25/24) = 250/3 = \text{Rs. } 83.33$. So if the daily wage in country B is Rs. 80, the daily wage in country A will have to lie between Rs. 83.33 and Rs. 200. There is no possibility of money wage differences going beyond these specific limits.

Suppose the daily wage rises to Rs. 200 in country A, per unit cost of producing both X and Y commodities rise to Rs. 8.00. In this situation, there can be no export of X from A to B because the per unit cost in country B is Rs. 8.00. The import of commodity Y from country B will, however, continue because per unit cost of producing Y in country B remains much lower than the cost in country A.

Such a situation will cause adverse balance of payments, depletion of foreign exchange reserves and gold in case of country A. This will lead to a fall in wages and prices in country A. On the opposite, the wage rate lower than Rs. 83.33, the lower limit of daily wage for country A, will cause adverse balance of payments, depletion of gold and foreign exchange reserves in case of country B.

Suppose daily wage in country A is Rs. 80, per unit cost of producing X and Y both will fall to Rs. 3.20. This will lead to a stopping of exports of Y from country B and country A will continue to export commodity X. The resultant inflow of gold and foreign exchange will increase the supply of money. This will raise the level of daily wages and prices in country A. In this way, it becomes clear that the wage rate will lie between the specific upper and lower limits.

The cost data alone, however, cannot determine where exactly between these limits the actual money wage rate of two countries and international terms of trade for the two commodities will settle. The Ricardian theory provides no answer to this question. The problem was later dealt by J.S. Mill in terms of the reciprocal demand for the product of each other.

3.1.7. Relative Factor Endowment Theory: Heckscher-Ohlin Theory

Factor endowment theory has been promoted by Bertil Ohlin who drew his concepts from the Heckscher's General Equilibrium Analysis. That is why, this theory is also called Heckscher-Ohlin (HO) model or theory. It is also known as the modern theory of international trade. Both Heckscher and Ohlin reasoned that comparative advantage develops due to the differences in factors endowed (gifted) to a nation. The theory describes that foreign trade happens due to the differences in prices of products in different countries. This difference in product price depends upon the lavishness of these factors (capital, labour, land); cost will be less if the resources are in abundance and vice-versa. In accordance with HO model, a country will export goods that use resources that are abundantly available with it and will import goods that use factors that are scarcely available.

3.1.7.1. Factor Intensity in Production

Labour and capital are the two factors of production considered by Heckscher-Ohlin Theory. Their combination to make a product is regulated by technology. Different proportions of labour and capital demand different products.

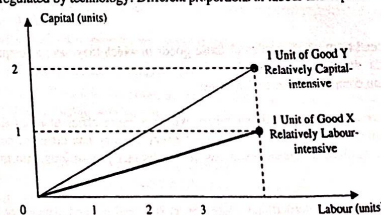


Figure 3.2: Factor Proportions in Production

In the given figure, a product is elaborated through the proportions of its factors. 1 unit of capital and 4 units of labour are needed to produce a single unit of X. Whereas, 2 units of capital and 4 units of labour are required to produce 1 unit of Y. Increased number of units of labour per unit of capital (4 to 1) are needed by X as compared to Y (4 to 2). Hence, Y will be called as a relatively capital intensive product relatively and X will be a relatively labour-intensive product. These proportions are not influenced by number of capital to labour but are completely based on the comparative requirements of X and Y.

The theory states that these factor intensities or proportions are greatly influenced by the current technological scenario in the production processes. It is based on the assumption that each country uses same technology for producing same products. It therefore falsifies the classical theory which said that variance in the production efficiency determines international trade. The classical theory justified the fact that's why, some countries need more labour than other countries to produce a product. It could do so because of its assumption that technology and labour product varies from country to country.

3.1.7.2. Assumptions of Heckscher-Ohlin Theory

The theory is based on following assumptions discussed below:

- 1) **Two Countries, Two Products, and Two Factors:** The usual $2 \times 2 \times 2$ assumption of two countries, two products, and two factors is followed by this theory. Both countries must attain balance of trade if they produce the maximum products and trade only among themselves.
- 2) **Inputs and the Outputs are Perfectly Competitive:** It assumes that both inputs and outputs are completely competitive. The inputs, i.e., factors or resources paid their worth in the markets where they were transacted. Also, the finished products were competitive to restrict the domination of one country over the market of other country.
- 3) **Increasing Production of Product Experiences Diminishing Returns:** Increased number of inputs will be required per unit of output as a country gains more specialisation in few product lines.
- 4) **Identical Technologies:** The theory assumes the technology used in both countries to be same. According to this assumption, countries can produce cheaper products only when labour and capital are cheaper.

3.1.7.3. Significance of Factor Endowment Theory

The significance of factor endowment theory is explained below:

- 1) More satisfactory and detailed reasons for the existence of international trade are offered by this theory.
- 2) The reasons for the variations in the production costs with respect to the variations in factor endowment are explained by this theory.
- 3) This theory states that the general demand and supply of inter-regional trade can be extended to international trade without any significant alterations.
- 4) It takes into consideration the variations in the production function which makes this theory more realistic.
- 5) Even though the labour costs of producing goods become equal, the trade continues to occur. This is due to the variations in the factor endowments.

3.1.8. Opportunity Cost Theory

In 1983, Professor Gottfried Haberler presented the opportunity cost theory which serves as a replacement for the comparative cost theory. Basically, opportunity cost is the cost one has to pay or sacrifice while choosing one alternative over the other. For example, if a gardener decides to grow carrots, his or her opportunity cost is the yield of alternative crop (potatoes) that might have been grown instead.

Opportunity cost is therefore the cost of the foregone or sacrificed alternative to acquire something else. Just like the comparative cost theory, this theory also considers the differences in the opportunity costs of manufacturing products between countries as the basic foundation of international trade. Though there exist differences in the approach of the two. The comparative cost theory takes into consideration the labour or any other real cost in calculating the production cost. On the other hand, theory of opportunity cost measures the cost of production in terms of the cost sacrificed for producing the additional units of another product.

Production possibility curves (PPC) generally describe the opportunity cost theory. In figure 3.3, country A's production possibilities are shown. In the figure, if country 'A' uses all its resources in carrot production, it can produce 10 units of carrots, and if employs the entire resources in potato production, 20 units of potatoes are produced. It can also have a combination of both the commodities if the resources are employed for carrots as well as potatoes. When a country produces 8 units of carrots, 4 units of potatoes are produced. The production of 2 additional units of potatoes is possible if the country reduces carrot production by 1 unit. Here, it can be concluded that the opportunity cost of producing one unit carrot is two units of potato.

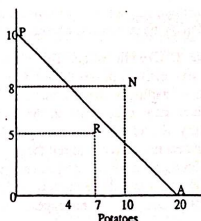


Figure 3.3: Production Possibilities of Country A

3.1.8.1. Merits of Opportunity Cost Theory

The advantages of opportunity cost theory over the Ricardian theory are as follows:

- 1) Several factors of production have been recognised by the opportunity cost theory as against only one factor in the Ricardian theory, i.e., labour. The theory of opportunity cost ensures the validity of comparative cost theory even if one does not consider the labour theory of value and depends entirely upon opportunity cost theory.
- 2) The theory of comparative cost considers production costs as constant whereas the theory of opportunity cost assumes constant, increasing, and decreasing costs.
- 3) The significance of substitution in production is taken into consideration by this theory.
- 4) A simplified model of general equilibrium for international trade is given by it.

3.1.8.2. Demerits of Opportunity Cost Theory

Following are the demerits of the opportunity cost theory:

- 1) Several approaches on which it is based are impractical.
- 2) In his studies of international trade theories, Jacob Viner considered the classical real cost theory superior to the opportunity cost theory. This is because according to him, the actual costs of sacrifice and foregoing are ignored by this theory.
- 3) Though Viner also said that theory of opportunity cost ignores the variations in factor supplies, the theory was backed by V.V. Walsh who said that these variations can be evaluated in terms of opportunity cost by considering marginal productivities of factors and variations in product price ratio.
- 4) According to Viner, the income with respect to preference for leisure is not considered by opportunity cost approach. Walsh again supported opportunity cost theory and stated that when countries transact at international price ratio, their income increases and a part of it is assumed to be leisure to lessen the output of both products.

The theory proposed by Professor Gottfried Haberler was an extension of the Ricardian theory. The reason behind the opportunity cost approach and the comparative cost approach is same in the matter of international trade and specialisation. Famous American economist, Paul Samuelson who praised the theory of comparative cost, has said that, "The opportunity cost approach is more fertile because it can be readily extended into a general equilibrium system. It is, therefore, not surprising that the opportunity cost approach has gained more and more popularity and it is used by even who, in principle, attack it."

3.1.9. New Trade Theory

Paul Krugman from the Massachusetts Institute of Technology propounded the new trade theory in 1980s.

According to him, the significance of network effects and economies of scale is such that they prove the traditional theories of comparative advantage as irrelevant. The theory states that the countries which specialise in a specific product can gain economies of scale and develop network benefits as well. Also, the early entrants in the market tend to dominate the market by creating their monopoly and creating barriers for the new entrants. They establish themselves, dominate a major part of global market, and develop competitive advantage. The competition therefore is limited and the poor countries find it difficult to develop some industries due to their inability to achieve economies of scale. Alfred Chandler from Harvard Business School supported Krugman's view by proposing that first-mover advantage of countries help them in capturing a major portion of the global market.

3.1.9.1. Economies of Scale and Imperfect Competition

The developments in theory made by Paul Krugman laid emphasis gain on production cost, and the influence of cost and price on international trade. Two types of economies of scale were mainly emphasised by Krugman through the theories which he developed from analysing market structure and micro-economics. These are explained below:

- 1) **Internal Economies of Scale:** Internal economies refers to a situation where a large organisation lowers the per unit cost of the output through large scale production. Internal economies lead to the organisation's monopoly. It gives rise to imperfect market conditions in domestic as well as overseas markets. The organisation becomes the 'price-maker' by lowering the price through large scale production and low cost per unit.

In such an imperfect market, the theory of comparative advantage forms the basis of this inter-relatedness between monopolising the domestic market and its impact on international trade. If an organisation plans for expansion and large scale production, it has to drive the resources from other industries towards itself. Due to this, there is a decline in many product specialisations and other countries get a chance to specialise in these ignored products. This develops a comparative advantage cycle of exploration by the countries.

While the traditional theories of trade do not validate intra-industry trade, internal economies of scale justifies it. When a country exports and imports the same product, it is called intra-industry trade. Krugman states that internal economies of scale enable an organisation to specialise in product line which is not very wide, but sufficient to reap the large scale cost benefits. Similarly, different organisations in different countries might be manufacturing the same product line with little or no product differentiation. The customers of any of the countries, if interested in buying both the similar products, will have to export and import the same product. Having been deeply studied in last few years, intra-industry trade is calculated by Grubel-Lloyd Index which gives the import-export ratio of the similar product between two countries. The calculation is illustrated as follows:

$$\text{Intra-Industry Trade Index} = \frac{|X_i - M_i|}{(X_i + M_i)}$$

Where,
i = Product category,
|X - M| = Absolute value of net exports of that product (exports - imports).

- 2) **External Economies of Scale:** External economies of scale occur when the industry size is the determinant of output per unit cost and not the size of an individual firm. When the cost per unit is based on the industry size, the industry is able to manufacture at costs which are lower than smaller industries of other countries. The country can take over the worldwide market of a product through numerous small organisations striving for large scale production and not just a single large organisation manufacturing on huge scale. There is no requirement of a single large organisation. Several smaller units combine to build a highly competitive industry whose markets cannot be breached by any competing industry of other countries. External economies of scale do not give rise to imperfect market conditions. It sometimes leads to worldwide supremacy of an industry in a particular product. This is the reason why low cost, labour, and resources of countries do not attract all industries. The issue which arises here is the reason for evolution of these small organisations and how they are linked to each other. A partial description on this issue has been given by Michael Porter.

3.1.9.2. Impact of New Trade Theory

The new trade theory advocates increasing returns to scale. According to this theory, by following protectionism (government actions and policies to restrict or restrain international trade), countries can develop large industries which later go on to create dominance in global market. Just like the traditional trade theories, new trade theory also calls for protecting the 'infant industries' against free trade. Though these effects are not much different than the older theories, new trade theory has brought two very important impacts in international trade. The first is the use of mathematical economics for increasing returns on scale. The second important change is the network effect which makes the whole industry more efficient. Therefore, there are gains to trade from specialising in a particular industry. Also, these highly technical models forecasted the likelihoods of industry specialisation by countries. For example, computer firms specialise in Silicon Valley, leading to improved pool of skilled labour and infrastructure.

3.1.10. International Product Life Cycle (PLC) Theory

The international product life cycle theory of trade is given by Raymond Vernon. It states that as the products move along the life cycle, there is a shift in their location of production. The international product life cycle theory has four stages namely introduction, growth, maturity and decline. All the stages are highlighted below (table 3.2):

Table 3.2: International Changes during Product's Life Cycle

Stages				
Basic	Introduction	Growth	Maturity	Decline
Production Location	In innovating or industrial nation.	In innovating and several industrial nations.	Numerous nations.	Mostly developing economies.
Market Location	Mostly in innovating nation, with the provision of exports.	1) Mostly in industrial nations. 2) Due to the replacement of exports by foreign production in some markets, there is a shift in export markets.	1) Growth developing nations. 2) Certain decline in industrial nations.	1) Mostly developing nations. 2) Certain developing nations export.

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Competitive Factors	1) Position of near monopoly. 2) Instead of price, sales are based on uniqueness. 3) The characteristics of products evolve.	1) Demand grows rapidly. 2) Increase in the number of competitors. 3) Some competitors start to cut their prices. 4) Standardised products.	1) Demand gets stabilised. 2) Decrease in the number of competitors. 3) Price is crucial in developing nations.	1) Demand starts to decline. 2) Price is the major tool. 3) Decline in the number of producers.
Production Technology	1) Production runs are short. 2) The methods evolve as products evolve. 3) High labour input and labour skills relative to capital input.	1) Increase in capital input. 2) Standardised methods.	1) Use of high capital inputs for long production runs. 2) Highly standardised. 3) Requirement of less labour skills.	Unskilled labour on mechanised long production runs.

3.1.10.1. Assumptions of International Product Life Cycle Theory

Development of a new product is based on certain actual or perceived monopolistic benefits:

- 1) The needs and opportunities of the domestic market induce the need for a new product.
- 2) No information about the market condition of developed or developing country's is known to the organisation which is innovating.
- 3) The innovating organisations of developed countries face different environment at home from other developed industrialised countries.
- 4) The existence of competitors results in production of exportable products.
- 5) Capital rich countries develop new products at first.

3.1.10.2. Stages of International Product Life Cycle

The main cause behind development of a new product is the need and opportunity available for it in the market. This implies that an Indian organisation is most likely to indulge into new product development for the Indian market, a Chinese organisation for the Chinese market, and so on. A combination of several forces like competition, presence of engineers and scientists, income levels, and high demand of consumers are the reason for emergence of advanced technology to develop new products in industrial countries.

Stage 1: Introductory Stage: As soon as a new product is created, an organisation can carry out its production at any place in the world. Generally, the introductory stage or the initial production takes place in the home country to save transportation overheads and get instant feedback. Organisations can also sell off a portion of the surplus produce in overseas market where consumers have the income to purchase new products.

In the introductory stage, the production process can be more labour-intensive. The production process has to be dynamic enough to allow quick changes in product features according to the market feedback as the product is not standardised yet. In other words, more labour has to be employed in place of capital based automated production. The machinery and equipment required for large scale production are generally developed after the product technology, when rapid expansion of sales takes place in the growth stage to meet the high costs of machinery development for new production process. The industrial countries having high labour costs and labour force which is skilled even before the standardisation of production, is most likely to witness early production. In case of high production costs due to costly labour, the organisations sometimes shift the cost burden on the customers, who do not want to delay their purchase in anticipation of future price-falls.

Stage 2: Growth Stage: This stage marks the entrance of competitors and considerably high demands in overseas markets of developed countries. The increased demand is at such level that the organisation might think of starting to manufacture in a foreign location to cut down on transportation costs. However, the entire produce stays completely in the foreign country with the additional production unit. If the promoter is in country X and the additional production unit is in country Y. The following reasons will encourage the producers in country X to sell the product in country Y:

- 1) Product's increased demand in the market of country Y.
- 2) Need for introducing unique variants of products for local consumers.
- 3) High costs due to challenges of production in start-ups.

There are ample amount of incentives for organisations at this stage to improve the process technology due to rapid sales growth both locally and internationally. But, the wide array of variations in products offered by the competitors with an aim to dominate the market refrain the organisations from improving their product technology. As a result, the production process still remains labour intensive but slightly lesser in degree than the previous stage. In the growth stage, the countries who are original exporters will boost their export volumes but will have to let go of some significant export markets due to competitors engaging in producing locally.

Stage 3: Maturity Stage: The global demand tends to stabilise at this stage irrespective of the ups and downs of demand in various countries. In order to standardise the product models, the producers sometimes undergo complete transformation, which results into the producer's cost advantage. Also, due to the lengthened production runs, per unit cost is reduced which enhances demand in developing markets. Due to globalisation of markets and technologies, the innovator country does not enjoy a production advantage anymore. It is beneficial for the producers to shift towards developing countries due to availability of cheap and unskilled labour for capital-intensive processes. In addition, the foreign production takes over the exports from the innovator country.

Stage 4: Decline Stage: In the last stage, i.e., decline, the product loses its demand more rapidly in the developed countries as compared to developing countries due to the increased demand of wealthy consumers for new and improved products. Till this stage arrives, the entire production is carried out in developing countries and is exported to small and specific markets of the developing countries. This means that the innovator country which used to export the product is now turned into an importer.

3.1.10.3. Importance of Product Life Cycle Theory

The PLC theory claims that the geographical location in which the product is launched influences the trade patterns. However, its predictability has declined steeply from 1945-75 due to integration of worldwide economy. The following points highlight the importance of PLC theory:

- 1) **Advantageous for Innovative Countries:** The innovative countries are likely to reap additional benefits from the PLC theory. These countries can benefit significantly by striking a balance between the technological innovation rate and the diffusion rate of technology to other countries. Failing to maintain this stability results in fall in trade benefits. However, it's worth mentioning that rapid globalisation has boosted the diffusion rate of technology.
- 2) **Sustains Competitive Drive:** Through PLC theory, an organisation continuously strives for innovation which keeps it one step ahead of the competitors and helps in maintaining its competitiveness.
- 3) **Stimulates Trade:** Being majorly based upon the traditional marketing theory of a product's life cycle, this theory defines the basic motivations for trade among nations distinctly. It searches out for the trade opportunity of a product throughout the four phases of the life cycle right from the innovation stage in which a new product is produced in the domestic country and also marketed mainly in the same area.
- 4) **Enhances a Country's Comparative Advantages:** The International Product Life Cycle (IPLC) theory starts when a developed country looks to capitalise on its technological advancement in overseas market by selling them a new product which meets their needs. This disseminates the innovative initiatives beyond a developed country's boundaries and the developing countries also start their own production facilities. This leads to the shift of comparative advantage towards developing countries from the developed ones.

3.1.10.4. Limitations of International Product life Cycle Theory

The limitations of international product life cycle are explained below:

- 1) **Vernon assumed that the technology diffusion takes place at a rate through which it can generate temporary differences between countries in terms of their access and usage of new technology.** But such an assumption became invalid by the latter part of the 1970s. There was a drop in the differences in income between developed countries. Limitation of products by competitors was occurring at a rapid speed. Moreover, production facilities were established in different countries by the MNCs. This allowed them to simultaneously market their products in different countries. Relocation of plants and factories became difficult as investments were made in the existing production facilities.

- 2) This theory assumes that firms first produce in a single country. Then they export their products to different countries and then finally, they set-up their production facilities at different countries. The scenario of business completely changed during 1950-1960. The organisational structures and relationships with the suppliers became more complicated. The balance between FDI and exports was basic and a greater number of modes of entry existed.
- 3) Capturing the technology in the basic operations and capital equipment was assumed under this model. Various discussions on unit cost, standardisation and labour intensity were reinforced by this assumption.
- 4) According to this theory, the various stages of international product life cycle are distinct and occur in a systematic order. A study conducted by Vernon stated that the strategies designed by organisations are oriented towards product technology. The behaviour of organisations employing advanced technologies is different from the ones which employ less advanced technologies. Therefore, greater investments in the R&D would enable the organisations to revamp their technologies and enhance the quality of their products.
- 5) This theory cannot be used to predict future changes due to its simplicity. Determining the product's phase in the life cycle is generally not very easy. Moreover, the impact of several factors is reflected on a single stage of the life cycle. This either hinders or improves the rate of sale of products and hence makes it difficult to actually know the real cause behind it.
- 6) The country level was mainly emphasised by Vernon. The relationship between country level and organisation lacked appropriate structure. In fact, he did not favour the consumer aspect but the product aspect of the life cycle, in turn focussing on the aspect of supply. It is improper to sell 'old' products in markets that are not much developed; especially, when there is worldwide accessibility of information and the cost of transportation for imports is not high.
- 7) Apart from average income consumers, a number of other segments constitute the foreign markets. These rising segments of global consumers were not considered under the study of Vernon.

3.1.11. Porter's National Competitive Advantage Theory: Porter's Diamond Model

The early trade theory emphasised mainly on the country and the natural resources possessed by it which build the country's competitiveness. However, with the evolution of trade and its theories, the emphasis is now laid upon the product and the industry. Michael Porter in 1990 published the outcomes of a research which defined the reasons for success and failure of countries in overseas competition. The research outlined four points which countries should focus upon to be successful in international markets. These points are also collectively called Porter's Diamond Model as illustrated in the figure below.

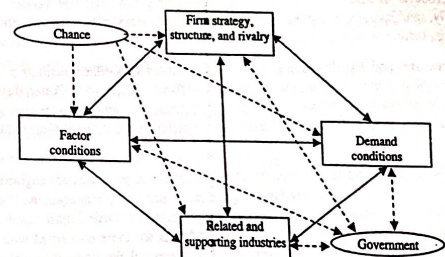


Figure 3.4: Porter's Diamond Model for Competitiveness

3.1.11.1. Components of Porter's Diamond Model

According to Porter, the ability of innovation and upgradation of an industry derives the competitiveness of the country in which it is operating. Porter referred innovation as a key to competitiveness, he also stated that competitiveness fosters primarily due to innovation. A firm should necessarily equip itself with all the constituents of competition that can influence the competitiveness of the country which it is in.

develop the competitiveness of the country also. Porter classified all such factors under four main components as "the diamond of national advantage". Figure 3.4 illustrates the components of Porter's Diamond model as well as other factors which also play an important role. All four components are inter-related and hence affect each other.

Additionally, all the four components get affected by government and chance factors.

1) **Factor Conditions:** In order to compete in an industry, how suitable and appropriate a country's factors of production are, derives the factor conditions of that country. Porter also pointed out that the factor condition is an important source of competitiveness of a country, yet it is not a lone factor responsible for it. This fact is also advocated by two theories of trade, i.e., factor proportion theory and classical theory. According to Porter, factor conditions do not mean that only acquiring the necessary factors of production, rather the factor conditions also refer to regular updation and optimum management of it.

United States have competitive advantage over other countries in the field of biotechnology. The factor conditions which resulted in this competitive advantage are technology expertise, presence of various economic methods of capital generation, etc.

2) **Demand Conditions:** Demand condition refers to the certain intensity of competition that a company should necessarily face in its home market. Only those companies can gain competitive advantage, which can perform considerably well in their local markets, because local markets are usually very demanding and very competitive. Porter concludes that, it's the demanding customers that drive competitiveness in the market, not the market size. Because demand of customers forces the companies to innovate and improve its services. Porter refers the demanding customers as character of the market.

The camera companies of Japan launched advanced variants of cameras with improved technology and quality only because the camera customers in Japan are well-informed and demanding. Similarly, the customers of particular region of Northern Europe were very fond of cellular phones, which enforced the mobile phone companies of that area to heavily invest in improved technologies of mobile phones. Companies had to take that step much prior to when demand for such products was not there in other parts of the world, only because of the highly demanding local market. Those companies were Nokia, Ericsson, and Motorola, which later became major companies of cellphone industry on global platform.

3) **Related and Supporting Industries:** This component of Porter's Diamond model considers suppliers and related industries to the firm, and their competitiveness as well. Because firms and industries working together with other related firms and industries might derive the advantage of synergic effect by establishing close relationships with suppliers, other firms, and by quick movement of information and product between them. These relationships prove to be more beneficial, if firms and suppliers willingly participate in it.

Among all the components of Porter's Diamond model, this component is most applicable of all. Various examples illustrates this fact, such as, relationship of textile and apparel industry of Germany, which produces quality products in markets of fabric, needles of sewing machine, and various other textile machinery. Similarly, steel industry of Sweden is well-known, which provides advantage to all the products made up of steel, e.g., cutting tools, ball bearing, etc.

4) **Firm Strategy, Structure, and Rivalry:** The conditions of a country may either facilitate or obstruct the ability of a firm to establish it and to compete with international firms. According to Porter, there is no such strategy which can be successful everywhere and in every situation. It requires a prompt and flexible company, which can take appropriate steps and adjust itself in different countries, different situations, and at different times.

Porter analysed that in Germany and Japan, majority of top management personnel are engineers, whereas in United States people from finance specialisation comprise major part of top management. With this fact, he concluded that the firms of Japan and Germany are more inclined towards improvement of product design and manufacturing processes, and the firms of United States are more concerned with short-term financial returns. He also stated that such ideology of U.S. hampered the competitiveness, as far as engineering and technology based industries are concerned.

Two additional factors which impact the competitiveness are **Chance and Government**.

1) **Role of Chance:** Chance factors are very important factors, which may turn the table for the competitor companies. In other words, it can either abolish one's competitive edge, or at the same time it can prove very advantageous to other companies. Following factors can be referred to as chance factors:

- i) Inventions and discoveries,
- ii) Change in political environment of home as well as host countries,
- iii) Wars,
- iv) Major changes in exchange rates and other economic environment,
- v) Fluctuations in prices of inputs, e.g. increase in prices of oil,
- vi) Sudden hike in demand,
- vii) Significant advancement in technological environment.

2) **Role of Government:** All the components of Porter's Diamond model can be affected by Government and its decisions. Such decisions of government are:

- i) Grants and subsidies,
- ii) Policies and procedures of education sector,
- iii) Defining certain rules and benchmarks for local products,
- iv) Amendments in laws and provisions related to tax,
- v) Changes in competition laws.

3.1.11.2. Limitations of Porter's Diamond Theory

It cannot be taken for granted, that an industry will surely prosper in the geographical area where all the four components are available because different businesses may have different set of conditions. According to comparative advantage theory, due to limited resources in a country, companies may become competitive in selective industries while leaving the others. But, in such cases also those companies may enjoy absolute advantage. For example, Switzerland would have been successful if it had a sound personal computer industry, because the conditions of Switzerland were favourable for it. But it is known for its scientific instruments and watches. Hence, it decided to secure the position which it already had in the world market, instead of diverting its skilled workforce to an entirely different industry.

Companies are becoming very much capable of acquiring factors of production, knowledge about the global market, and finished goods from overseas. And this possesses another limitation of Porter's Diamond model. It can be explained with the help of following situations:

- 1) Competition is not only limited to domestic markets now, and this situation lead to considerably high exports in Asia. Indeed, few Japan based companies are selling major portion of its production in foreign countries only, e.g., Fujitech, Uniden, etc.
- 2) Scope of companies in today's world have increased to such an extent that they are not dependent only on domestic factors of production. As almost every factor condition has become movable on global platform.
- 3) Another essential component of diamond model is related and supporting industries. But, due to easier norms of import and advanced transportation, companies acquire related parts and products easily from abroad. Assembling of products by bringing its components from different countries is also in trend.
- 4) Competition and rivalry is not remained limited to one's home country, while companies also react to the activities of foreign rivals.

Hence, it can be said that, absence of any one component of diamond model will not affect the competitive efficiency of a firm on a global platform.

3.1.12. Global Strategic Rivalry Theory

The Global Strategic Rivalry Theory of international trade was developed in the 1980s by such economists as Paul Krugman and Kevin Lancaster as a means to 'examine the impact on trade flows arising from global strategic rivalry between Multi-National Corporations.' It explores the notion that in order to stay viable, firms should exploit their competitive advantage globally and try to keep it sustainable. According to this view, firms struggle to develop some sustainable competitive advantage, which they can then exploit to dominate the global marketplace. Like Linder's approach, global strategic rivalry theory predicts that intraindustry trade will be

commonplace. It focuses, however, on strategic decisions that firms adopt as they compete internationally. These decisions affect both international trade and international investment. Companies such as Caterpillar and Komatsu, Unilever and Protect & Gamble, and Toyota and Ford continually play cat-mouse games with one another on a global basis as they attempt to leverage their own strengths and neutralize those of their rivals.

Firms will encounter global competition in their industries and in order to prosper, they must develop competitive advantages. The critical ways that firms can obtain a sustainable competitive advantage are called the barriers to entry for that industry. The barriers to entry refer to the obstacles a new firm may face when trying to enter into an industry or new market.

The barriers to entry that corporations may seek to optimize include:

- 1) Research and development,
- 2) The ownership of intellectual property rights,
- 3) Economies of scale,
- 4) Unique business processes or methods as well as extensive experience in the industry, and
- 5) The control of resources or favorable access to raw materials.

3.1.13. Review on Trade Theories

The benefits of entering into international trade are explained under international trade theories. The trends of international trade happening around the world are also explained under them. Free trade is emphasised in the theories of Heckscher-Ohlin, Ricardo and Smith. However, intervention of the government to put restriction on free trade is supported by the New Trade theory and the Mercantilist Doctrine.

Essence of different international trade theories is given below:

- 1) According to **Mercantilists**, a trade surplus was in the best interest of a nation. According to them, trade was a zero-sum game where the gains of a particular country result in the other country's losses.
- 2) As per the **Absolute Advantage Theory**, there is a difference in the ability of nations to produce goods in an efficient manner. Moreover, only those goods should be produced by nations in which they hold absolute advantage.
- 3) According to the **Comparative Advantage Theory**:
 - i) Those goods should be produced by nations which they hold specialisation in or can produce in an efficient manner. Further, those goods should be purchased by nations which they cannot produce in an efficient manner.
 - ii) As per this theory, trade is considered as a positive-sum game, as in there is an increase in the overall production of the world due to free trade.
 - iii) Also, growth is registered by an economy when it engages itself in free trade. As a result, profits are generated. This claim is also supported by some experimental evidence.
- 4) According to the **Theory of Heckscher-Ohlin**, the variations in the **Factor Endowment** determine the international trade patterns. As per its prediction, goods that use local factors of production intensively are exported whereas goods that use local scarce factors of production intensively are imported.
- 5) According to the **Theory of Product Lifecycle**, the location of introduction of a new product influences the patterns of trade. However, as the world economy is becoming integrated, the theory of product lifecycle is losing its predictive nature.
- 6) It is stated by the **New Trade Theory** that:
 - i) Through trade, countries can attain specialisation in producing goods, decreasing the production costs of such goods and achieving economies of scale. It also enables a nation to purchase those goods which it does not specialise in producing. As a result, there is an increase in the number of goods for consumers to choose from. This in turn lowers the average cost of goods.
 - ii) According to the new trade theory, such industries where considerable economies of scale is achieved, suggest that a few organisations will be supported by the world market; nations may indulge in exports only because an organisation in that industry was already engaged in exports.
 - iii) The concept of strategic trade policy is promoted by some theorists of new trade. They argue that the subsidies offered by the government may encourage local organisations to get involved in exports.