CHAPTER – II

REVIEW OF LITERATURE
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2.1 Introduction

Economics as an organized science can be said to have originated with the publication in 1776 of The Wealth of Nations by Adam Smith. Writings on international trade preceded this date in countries such as England, Spain, France, Portugal, and the Netherlands as they developed into modern national states. Specifically, during the 17th and 18th centuries a group of men (merchants, bankers, government officials, and even philosophers) wrote essays and pamphlets on international trade that advocated an economic philosophy known as mercantilism. The mercantilist maintained that the way for a nation to become rich and powerful was to export more than it imported. The resulting export surplus would then be settled by an inflow of bullion, or precious metals, primarily gold and silver. The more gold and silver a nation had the richer and more powerful it was (Dominick Salvatore, 2004).

The systematic study of trade emerged in the mercantilist era as a crude set of arguments about how a nation should conduct its trade. It was felt that each nation’s self interest was served by encouraging its exports to other countries and discouraging its imports from them. The mercantilist view began to yield, after the late 18th century, to a free-trade view, arguing that a nation’s self-interest and the world interest would both be served best by just letting people trade as they saw fit. The main hypothesis continued to be one about how trade should be conducted. No country can survive in isolation. For quick economic growth and to satisfy the needs of the public, every country has to export and import certain goods. Foreign trade has now become an
essential ingredient of the normal economic life of any country. In terms of economic development foreign trade is a potentially effective engine of growth.

International trade is the exchange of goods and services across international boundaries. In most countries, it represents a significant share of GDP. While international trade has been present throughout much of history, its economic, social, and political importance has been on the rise in recent centuries. Industrialization, advanced transportation, globalization, multinational corporations, and outsourcing are all having a major impact. Increasing international trade is the usually primary meaning of ‘globalization’.

2.1.1 Brief Review of Theories on International Trade

Economists have propounded some theories to explain the factors prompting or necessitating trade between countries. The important theories are: (i) Theory of Comparative Advantage, (ii) The Classical Theory of Comparative Costs, and (iii) The Heckscher-Ohlin Theory. Besides these theories, there are group theories known as the New Trade Theories.

**The Theory of Comparative Advantage** states that a country will export those commodities in the production of which it has the greatest relative advantage over other countries. The advantage could be, by reason of exclusive natural resources, on account of which no other country can produce that particular commodity. The theory was proposed by the economist David Ricardo in the year 1817. The theory propounded by Professor Gottfried Haberler in the year 1936 was applied as a substitute for the doctrine of Comparative Cost, in terms of real cost. **The Classical Theory of Comparative Costs** states that International division of labour enables every country to specialize and to export those things that it can produce cheaper in
exchange for what others can provide at a lower cost which thus results in international trade. The Classical Theory of Comparative Costs demonstrated that the basis of foreign trade was the comparative cost differences. However, it did not explain the causes of such comparative cost differences.

**The Heckscher-Ohlin Theory** explains the reasons of comparative cost differences between the two nations with respect to two commodities. In nutshell, this theory states that a country will specialize in the production and export of the goods whose production requires a relatively large amount of the factor with which the country is relatively well-endowed. The theory was proposed by the economists Eli Heckscher and Bertil Ohlin in the year 1930. Their theorem states that, countries which are rich in labour, will export labour-intensive goods and countries, which have plenty of capital, will export capital-intensive products (E. Hecksher and B.Ohlin, 1930).

Several alternative trade models presented below focuses on an attribute of production in an industry or group of industries that makes them unlike the simple models assumed by the Ricardian and Heckscher Ohlin models. The theories are: (i) The Product Cycle, (ii) Intra-firm Trade, (iii) Intra-industry Trade, (iv) New Trade Theory, and (v) New Economic Geography.

**The Product Cycle** model of trade was developed by Raymond Vernon. He pointed out that many manufactured products, such as automobiles go through a product cycle in which the inputs change over time. Initially, when these goods are brand new, there is a great deal of experimentation in both the characteristics of the final product and its manufacturing process. As manufacturing processes become standardized, they can be performed by relatively unskilled labour. In effect, the blend of inputs changes over time, from highly skilled scientific, engineering, and marketing elements to basic
unskilled and semiskilled labour. Consequently, the opportunity cost of production in developing countries becomes lower than the cost in high-income countries. Advances in transportation and communication have played an important part in the development of a product cycle.

A significant share of world trade is international trade between a parent company and a foreign-owned affiliate, called Intra-firm Trade. When a firm spreads its production across international boundaries, it can take advantage of differences in the price of inputs. Firms may locate in a foreign market to deter entry by competitors, to use low production costs for one product line to subsidize production of another product line (cross subsidization), to subsidize one regions customers by another’s, or to escape taxation. Firms share their production globally in order to take advantage of factor price differences across international boundaries.

Much of the world’s trade is the export and import of the same good, or intra-industry trade (i.e. trade within the same industry). Intra-industry Trade is the exchange of similar items, implying similar relative factor endowments. Both trading industries have opportunities to expand their exports, although the total number of firms may ultimately decline. Furthermore, intra-industry trade is greatest between advanced industrial economies, where differences in factor endowments are least.

Paul Krugman (1979) the proponent of the New Trade Theory (NTT) received a Nobel Prize for his work. The new model showed that trade between countries with similar but not identical capital/labour endowment ratios would involve export of manufactures by the relatively capital-abundant nation and of the agricultural product by the more labour-abundant one. As long as factor endowments are not too diverse, and in the absence of transport costs, everyone benefits from trade. In this framework,
firms can earn oligopoly profits (unlike monopolistic competition, in which profits are competed away by free entry) and a government can use import tariffs and export subsidies to tilt the competitive struggle between home and foreign firms in favour of the former, so that a larger share of profits accrues to home nationals.

**New Economic Geography (NEG)** by Krugman (1991) was a natural outgrowth of New Trade Theory. New Trade Theory had also recognized in passing that higher wages would attract migrants, and shown that in the presence of transport costs, larger countries have higher wages, and more firms want to be located there due to the home market effect. He assumed that inter-regional trade in manufactured goods involves transport costs, and that industrial worker, but not farmers, can move from one region to another. At high levels of transport costs the dispersion force is stronger, maintaining a symmetric distribution of manufacturing activity in both regions as the only locally stable equilibrium, with workers having no incentive to migrate. At lower transport costs, outcomes with all industry become stable equilibria, coexisting with the symmetric one.

### 2.2 Theoretical Developments in Regionalism

‘Regionalism v/s. Multilateralism’ is a much discussed topic among trade economists, ‘Regionalism’ is defined as any policy designed to reduce trade barriers between a subset of countries regardless of whether those countries are actually contiguous or even close to each other. Whereas, Multilateralism is referred to as a process whereby, the countries solve problems in an interactive and cooperative fashion.

Regionalism as an alternative to multilateralism emerged mainly from the failure of the world trading system to provide a quick and acceptable solution to the problems it encounters during its existence. The economic outcome of multilateralism and
regionalism attracted huge interest among economists and number of studies were carried out to identify the determinants of world trade. But these studies could not decisively resolve the regionalism versus multilateralism debate with their empirical findings and the economists are divided between multilateralist and regionalist ideology. In this context an alternative view emerged known as ‘open regionalism’, which considered regionalism and multilateralism as complementarities and both can coexist and help each other in their pursuit. The growing participation of developing countries in WTO, as well as the boom of free trade agreements that grant exclusive preferences to its members, are both closely related to what has been widely denominated as ‘new regionalism’. There is a connection between ‘new regionalism’ and a process of ‘deep integration’ since it transcends free trade issues.

2.2.1 Developments in Regionalism

Trade theorists have made strong theoretical expositions on the likely impact of regionalism on the international trade flows of products. The earliest work on the theory regional integration was presented by Viner (1950) in his seminal work ‘The Customs Union Issue’ in 1950. He demonstrated that the welfare of the members need not necessarily be improved by the preferential trade. However, it could reduce the trade by diverting it from a low cost country to a high cost country. To explain the economic outcome of regional integration, Viner used two concepts- ‘Trade creation’ and ‘Trade diversion’. Viner explained that PTAs liberalise trade preferentially, by ‘creating’ new trade between union members and by ‘diverting’ from a low cost supplier to a high cost union supplier. The ‘trade creation’ is beneficial due to the replacement of the home country’s less efficient industry and hence the consumers can avail the same commodity at a lower price. The ‘trade diversion’ effect arises when a more efficient outside supplier is displaced by a union member who takes an
advantage of the tariff preference. However, by shifting the intra-union terms of trade in its favour, an individual member country can benefit from a trade diverting union.

In his book ‘The Theory of Customs Union’, Meade (1955) outlined the modern static theory of regional integration arrangements. His model is an enhancement over Viners, as he disregarded the Vinerian assumption of constant costs of production in trading countries. He recognized the necessity of ensuring equilibrium in international payments balances. The focus of his analysis lay on the economic welfare of the world economy, rather than the countries forming a regional integration arrangement.

Lipsey (1960) explored the welfare effect of customs union. According to him, the concepts of trade creation as ‘good’ and trade diversion as ‘bad’ are no longer valid as he delineated production and consumption effect of the customs unions. His model depicts that the formation of a customs union may lead to an increase in welfare.

Through the Domino theory of Regionalism, Baldwin (1993) explained why countries prefer regional integration rather than multilateral liberalization. The Juggernaut theory of Baldwin (2005) suggests that liberalisation leads to further liberalisation, and once the process sets in, it is difficult or impossible to stop it. As an interaction between the domino theory and juggernaut theory, he suggests that in most cases regional trade blocs are building blocs toward free trade.

According to Zissimos (2002), optimal tariffs are higher in the absence of free trade agreements with regional partners rather than countries outside the region. Caldentey and Ali (2006) presented a two country model that of a leader and a follower. The model portrays the differences and growth disparities among countries. The hypothesis of ‘natural-trading partners’ enunciated by [Wonnacott and Lutz (1989) and espoused by Summers (1991) and Krugman (1993)] portrays that the increase in
trade between two countries relative to the outside world, there are less chances that the union between them would be harmful. Bhagavati and Panagaria (1996) and Schiff (1996) argues that the economic gains from forming a trade block are likely to be smaller and the tariff revenue loss will be substantial.

Wonnacott and Wonnacot (1981, 1992) explained the formation of regional trade agreements using the concepts of foreign trade barriers and transport costs. There is an exchange of preferences between the home country and the partner country in order to protect the greater savings from the high cost of transport of goods, associated with the home country's exports to the non-member country. But Panagaria (1997) criticizes this argument with the view that transport costs are no different than any other costs and hence deserve no special attention in considering PTAs. Bhagavati and Panagaria (1996) show that in general though there is an assumption about trade being better with proximate partners than trade with distant partners. However, this assumption is false (India-Pakistan versus India-U.S. relationship).

2.2.2 Development of Regional Trade Agreements

One of the major developments in the international economy in the last two decades of the twentieth century and early twenty-first century has been the growth of the formation and implementation of regional trade agreements. The early 1990s especially experienced a dramatic growth in the number of regional trade agreements that were established or under negotiation (WTO, 2007). As reported by the World Trade Organization (WTO), 130 RTAs were notified to them after January 1995. This phenomenon is believed to be stimulated partly by the United States, who began regional cooperation with Canada in their bilateral Free Trade Agreement (FTA), and trilateral North American Free Trade Agreement (NAFTA) with Mexico. The further
integration of the European Union (EU) and its success represents a good example for other countries in realizing huge benefits from integrating with other countries in their region (Siggel, 2005).

As of 6 November 2014, 391 RTAs have been notified to the General Agreement of Tariffs and Trade (GATT) or the World Trade Organization (WTO, 2014), compared with only forty RTAs in 1990 (Crawford and Laird, 2001). The number of such agreements that were notified to the WTO has been more than eight times that of RTAs during post World War II period to the end of the 1980s. In these 391 RTAs, of which 377 are the new RTAs formed and 14 are the Accessions. Even now, more potential RTAs are under negotiation and are likely to be concluded, forming new free trade areas (WTO, 2014). As more than one third of world trade is now carried out within regional trade agreements (Ghosh and Yamarik, 2004), the recent growth in the number of established RTAs and the strengthened implementation of their regional cooperation policies will become a more significant factor in stimulating the development of world trade and economies.

Usually RTAs are formed by more than two countries. When two countries decide to give each other free entry into their markets, it is called a Bilateral Free Trade Agreement. These began to proliferate from the 1990s. After 1990, more countries wished to develop bilateral trade and investment relationships, as a result many bilateral RTAs were concluded. For example, at the beginning of the twenty-first century, Japan signed a bilateral FTA with Singapore whilst Australia has become a bilateral trade partner with both Thailand and Singapore.

The phenomenon of the ‘spaghetti bowl’ came into existence as more RTAs were implemented, as pointed out by Bhagwati (1992). For instance, nowadays, most of the
150 WTO members have participated in one or more RTAs (WTO, 2007), which means those RTAs intersect each other. To outline the extent of this phenomenon, member countries of EU and European Free Trade Agreement (EFTA) are involved in more than 19 RTAs whilst South American countries like Brazil, Colombia, Venezuela, Chile and a number of countries from Central America are each involved in eight to eighteen RTAs (Crawford and Laird, 2001).

Now RTAs include wider network of participants because of two factors. First the geographic restrictions have been relaxed. From the 1950s to the 1960s, it was common practice for countries within the same region to form RTAs. However, newly formed RTAs are not limited to geographical locations as earlier RTAs such as the EU used to be. More and more countries from various continents, especially Europe, America, Australia and Asia are beginning to form RTAs across continental boundaries. Another interesting aspect is that RTAs are no longer formed among solely developed or developing countries. Countries at different levels of economic development are willing to form RTAs according to their needs. For instance, NAFTA incorporates two developed countries – the United States and Canada and one developing country – Mexico.

Regional trade agreements not only involve free trade progress in commodity trade, but also have other aims, including free flow of inputs factors, free trade in services, facilitation of foreign direct investment, common currency policy and even some particular economic or political policies.

Regional trade agreements are considered to have five different levels of integration based on their members’ trade and economic cooperation and the sacrifices they make in their freedom to set their national policies independently of RTAs. The lowest level
is the preferential trade agreement, in which a member will give favourable trading conditions to other members, while maintain their freedom to impose their own trade barriers against non-members. When members of an RTA trade completely freely with each other without any trade barriers, they form a free trade area, which is the second level. At this stage, members may still have their own external trade barriers to non-members. The third level is the customs union, whose members share a common external tariff to other non-members while at the same time they trade freely with other members. At this level, each member of the RTA has to give up its own freedom to determine its country’s external trade barriers and to cooperate with other members to decide sole external trade barriers for all members (Siggel, 2005).

A common market is the fourth level. It has the same character of the customs union and allows free flow of factors including capital and labour within the integrated area. Members have to give up their rights to decide where factors can come or go, this particularly affects the labour. The highest level at the moment is economic union. It has the basic characters of a common market, while at the same time member countries share the same currency and same monetary policies if possible. When politics is also involved, it can be called an economic and political union (Siggel, 2005). At this level, member countries have to give up considerable national sovereignty to the economic union in order to maintain and make further progress in having an integrated trade policy, monetary policy and other related policies.

All current RTAs can be categorized into these five levels based on the level of their regional trade and economic development. By liberalizing trade in goods and services within the region, by eliminating restrictions on FDI, by cooperating in currency to eliminate currency price fluctuation and minimizing currency exchange costs,
participating in RTAs and the development of RTAs have stimulated member countries achievements in many economic aspects, especially in foreign trade, FDI and technology.

2.3 Empirical Studies on Regionalism: An overview

There is a lot of empirical investigation conducted on the relationship between regional integration and economic growth. Thirlwall (2000), Wacziarg and Welch (2003), and Frankel and Romer (1999) highlighted a positive relationship in their studies between trade liberalization and growth. However, there exists skeptics like Rodriguez and Rodrik (1999) and Cruz (2008) who doubt the role of trade openness per se in stimulating growth. The relationship between different forms of international integration and economic growth was extensively surveyed and empirically investigated by Haveman, Lei and Netz (2001). They came to a conclusion that increased growth takes place due to membership into a trade block and foreign direct investment into a country. Two presumptions were tested by Dee (2007), which state that economic integration promotes economic growth and preferential trade agreements promote economic integration.

In a number of studies focuses on the reason behind the rapid increase in bilateral and regional trade agreements in the arena of international trade. The argument put forth by Fiorentino Verdeja and Toqueboeuf (2006) is that the proliferation of RTAs is a challenge as well as opportunities for the WTO members and that the RTAs should be designed and implemented in such a way so as to ensure that the RTAs complement the multilateral process. Sager (1997) said there is a widespread disagreement regarding the effect of regional trade agreements on the multilateral trading system.
A number of studies have been conducted that explore the determinants affecting the RTAs. Baier and Bergstrand (2005) found the difference in capital-labour endowment ratios are important factors that affect the RTAs. Holmes (2005) depicted that countries from the same continent have a higher chance of signing an RTA irrespective of their importance in each other’s trade. Magee (2003) showed that though neighbouring countries are more likely to enter the PTAs, it cannot be necessarily be attributed to ‘natural trading hypothesis’.

Amjadi and Winters (1997) found that MERCOSUR countries do not benefit in net welfare gain of intra regional transportation costs in comparison to inter-regional transportation costs. Studies were conducted that looked into the age of RTA and their economic outcome. Coulibalya (2004) found that for the first years of participation for the ‘younger’ developing RTAs (AFTA, CAN, MERCOSUR, NAFTA and SADC) are rewarded by a positive trade and welfare effects while the ‘older’ ones (CACM, ECOWAS and EU) depicted a more unpredictable trade as the number of years of participation of the members keep increasing. Magee (2008) observed that the average regional agreement affects trade for around eleven years and has significant anticipatory effects on trade flows after the deal begins. It is seen that the Customs unions have a bigger influence on trade over a longer period of time than free trade areas.

Regionalism versus broad liberalization was studied by Vamvakidis (1999). Through his study, he showed that member countries growth increased after broad liberalization. However, it was slower after participating in an RTA. According to Brown, Deardorff and Stern (2000), the welfare gains from multilateral trade liberalization are considerably greater than the gains from preferential trading
arrangements. The industrial growth of three Andean pact counties was studied by Madani (2001) which portrayed that unilateral liberalization had a more positive impact on output growth.

Estevadeordal, Freund and Omelas (2005) in their study depict that the multilateral (MFN) tariff in a particular product depends on the tariff preference that a country gives to its partners. Nitsch and Sturm (2005) showed that the country's trade policy can not be affected by an RTA membership.

According to Lee and Shin (2005) geographical distance, land borders, common language, and area, have a significant impact on trade creation and trade diversion. For example East Asian RTAs are more trade creating than trade diverting. Through the use of a computable general equilibrium model Sulamaa and Widgren (2005) showed that global free trade is better for all regions in the investigation. According to the study, the biggest winners of global free trade are Asian countries, Brasilia and developing countries.

By employing the New Trade Theory, Winters (1997) analysed the welfare impacts of an RTA on non-members. His argument is that the welfare impacts depend on the changes in the terms of trade, levels of output, number of firms, existing trade restrictions and induced investment effects. Brazil's entry in to MERCOSUR was analysed by Chang and Winters (2002) who found that non-members' export prices to Brazil fell relative to their export prices of the same commodities to other markets.

The economic size of countries joining the regional integration arrangement has been of considerable interest to economists recently (Bhagwathi and Panagaria, 1996, Schiff, 1997). The principal issue is whether a small country can expect to gain more from joining a large regional integration arrangement than a small regional integration
arrangement. Schiff (1999) in his study revealed that the impact of a preferential trade agreement on home country welfare increased by the level of imports from the trading partner. Schiff and Andriamananjara (1998) observed that a microstate's decision to join a regional organization is to reduce negotiating costs and increase the bargaining power.

A large number of studies in the area of regionalism were directed at examining the trade creation versus diversion effect of Regional Trade Agreements. Dee and Gali (2003) studied the preferential trading arrangements (PTAs) on merchandise trade and investment using the gravity models. Twelve out of the eighteen PTAs studied, were found to have more trade from non-members than they have created among members.

The Mexican entry into NAFTA was studied by Krueger (1999) which highlighted that the Mexican trade with the U.S. and Canada has risen sharply and that there is ‘trade creation’ and not ‘trade diversion’. Soloaga and Winters (2001) studied nine PTAs to compare bloc' patterns of trade in EU and EFTA. Crawford and Laird (2001) found that RTAs are trade creating for members as well as for non members.

Using simplified gravity model, Kawai and Wignaraja (2008) showed that the trade creation and trade diversion dummies have statistically significant coefficients. The same issue was examined by Urata and Okabe (2007) who found trade creation effects and that the effects of trade diversion are limited. Koo, Kennedy and Skripnitchenko (2006) found that there is an increased trade volume among member countries through both inter- and intra industry trade.

Bhattacharya and Bhattacharyay (2007) studied India - China FTA by using the gravity model to identify trade complementarities and trade potential among them. Empirical results showed that the potential gain of India is relatively less compared to
China (because of its high tariffs). However, in the long run, India depicts higher gains than China (once tariffs are at par). Free trade arrangement provides a win-win situation for both countries as it is consistent with their growing dominance in the global trade.

2.4 RTA and Trade Development

RTAs including bilateral free trade arrangements are flourishing worldwide and still enjoy a favourable environment for fostering negotiations in the future. The success in pursuing regional trade cooperation has been noticed and provides a stimulus to further trade liberalization.

2.4.1 Augmenting Trade Effect

The formation and development of regional trade agreements has been found to have a crucial role on increasing trade, not only stimulating trade among member countries, but also stimulating trade between member countries with non-member countries.

Rajapakse and Arunatilake (1997) find that by removing restrictive trade barriers a large amount of more bilateral trade would be expected within the South Asian Association for Regional Cooperation (SAARC). Endoh (1999) finds that the EEC and Council of Mutual Economic Assistance (CMEA) members increased regional trade during the 1960-1994 period. Peridy (2005) studies Mediterranean countries’ regional cooperation with the EU and finds that by implementing preferential trade with the EU since the 1970s, Mediterranean countries have successfully increased their exports to the EU area, and the 1995 Barcelona conference saw a great achievement in finalizing a free trade area between the EU and other Mediterranean countries to further increase trade between these two regions. Using trade data after the World War II, Plummer (2006) studies the benefits of membership in ASEAN to
its members and finds that being members in ASEAN simultaneously, two trading partners increased their bilateral trade by about 140 percent more than would have been expected. Bergstrand (1985) and Bergstrand (1989) find positive coefficients for members in the EEC and European Free Trade Association (EFTA) in the years 1965, 1966, 1975 and 1976 and EEC-EFTA trade pact in the years 1975 and 1976, suggesting that participation in preferential trading arrangements has stimulated trade among member countries in the EEC, EFTA and EEC-EFTA trade pact.

Moreover, Rajapakse and Arunatilake (1997) find that SAARC members anticipate enlarging their trade share with non-member countries in the world market as well as in their regional market. Endoh (1999) finds that EEC members have traded more with outer-region countries over the period 1960-1994. Plummer (2006) also notes that ASEAN countries are found to have increased their trade with non-ASEAN countries.

2.4.2 Trade Creation and Trade Diversi on Effect

In early studies, Viner (1950) first calls people’s attention to the two contradictory effects of a country’s membership in an RTA. Generally speaking, a member country will benefit from importing lower cost commodities from another member to replace higher cost domestic production after import tariffs are removed, while suffering a loss when it diverts its imports from a low-cost third country outside the arrangement to a high-cost member country because of tariff reduction within the regional free trade area (Grimwade, 2000). The former is known as the trade creation and the latter the trade diversion effect. Results from the trade creation effect will stimulate free trade because of an improved resource allocation within the region. However, the trade diversion effect will result in strengthened protection from resources outside the
region. The net effect will depend on whichever is larger, that is, welfare enhancing in a member country when its trade creation effect is larger than trade diversion effect, or welfare loss in the same country when its trade creation effect is less than trade diversion effect. Furthermore, if more countries improve their welfare, the global welfare will be improved, if more countries experience welfare loss, then global welfare will be damaged.

After Viner, many researchers find that the trade diversion effect does exist. For instance, Yeats (1997, cited in Crawford and Laird, 2001) notes the evidence of trade diversion in MERCOSUR, which has caused fewer imports from non-members and subsequently altered import composition of the importing countries.

Aitken and Lowry (1973) concentrate their study on the Latin American Free Trade Association (LAFTA) and the Central American Common Market (CACM), whose members are all less developed countries pursuing trade and economic development through members’ economic integration. They study the period from 1955 to 1967, incorporating both pre-integration period and post-integration period. Aitken and Lowry demonstrate from their empirical results that members in both LAFTA and CACM experienced strong cumulative trade creation benefits in most years after their regional integration, and no significant trade diversion loss was found for other non-member Latin American countries. The integration within LAFTA and CACM thus had a positive effect on enlarging trade and improving welfare among members.

Endoh (1999) finds that the EEC and CMEA had a positive trade creation effect when its members traded more within regional areas in the 1960s and the early 1990s. A trade diversion effect is reported for CMEA and LAFTA with them trading less with
non-member countries. However, the trade effects of these three regional economic arrangements had been weakening, especially during the 1990s.

Other researchers, such as Soloaga and Winters (2001), Clarete, Edmonds et al. (2003) and Fukao, Okubo and Stern (2003), show that after RTAs were implemented, some members increased their imports from other member countries whilst decreasing their import volumes from non-member countries.

Further to the studies mentioned above, Vines (1995) points out that these two trade effects will be different according to the different organization and objective of RTAs. Most of the RTAs in the world tend to liberalize inside the region while maintaining their own or common trade barriers to the outside region (called regional trading blocs in Vines’ study). Trade creation effect and trade diversion effect will both occur for these blocks. However, for a few RTAs engaging in trade liberalization for their member countries and extending this to other non-member countries (called open regionalism in Vines’ study) only the trade creation effect will be found, while the trade diversion effect will not occur as RTA members will non-discriminatorily import from members and non-members as they face the same trade barriers. Therefore, RTAs, such as APEC that does not forbid members from extending their regional trade negotiation outcomes to non-members unilaterally, may incur a trade creation effect, while other RTAs will have both trade creation and trade diversion effects.

2.5 Regional Integration studies based on Gravity Model

Following Tinbergen’s (1962) introduction of examining the effect of economic integration in trade flows, Linnemann (1966) applies the gravity model to study the impact of the formation and implementation of regional trade agreements on member
countries’ bilateral trade flows. From the late 1960s and the early 1970s, more studies have used the gravity model to estimate the effect of an RTA on bilateral trade by introducing additional RTA dummy variables. Aitken (1973), Braga, Sadafi et al. (1994), Bayoumi and Eichengreen (1997), Frankel (1997), Endoh (1999), Soloaga and Winters (2001), Clarete, Edmonds et al. (2003) have extended the gravity equation to include more variables to capture the impact of regional trade agreements on the change of members’ trade flows. From the 1970s, the basic gravity model has been extended three times to study trade effects on members of a regional trade agreement. Aitken and Lowry (1973) and Braga, Sadafi et al. (1994) introduced a dummy variable to obtain the RTA impact on trade between members. The dummy variable takes the value of one if two trading countries are both members of one RTA, and zero when either of them is not a member of this RTA. When all the other variables remain unchanged, a positive coefficient indicates that an RTA member tends to trade more with other member countries as well as the rest of the world, while a negative coefficient means a member tends to reduce trade with non-member countries.

A general gravity equation is thus derived for aggregate trade flow studies, which is explained by GDP, population, distance and other factors. Later in the 1980s, Bergstrand (1985) theoretically justifies the gravity model in a microeconomic foundation from a general equilibrium framework. He derives a gravity-type equation based on several assumptions: (i) trades are undertaken between small open economies; (ii) same production and utility functions for each country; (iii) perfect substitution for production and consumption goods around the world.

Bergstrand (1985) further tests the derived gravity-type equation for differentiated products traded by each country by including price changes and exchange rate
changes. Bergstrand (1989) further theoretically justifies the gravity equation by employing trading partners’ per capita income to represent a country’s factor endowment level and taste preference to test whether the gravity model is in line with the Heckscher-Ohlin model and Linder hypothesis.

Bayoumi and Eichengreen (1997) and Frankel (1997) introduce another dummy variable to measure trade effects between RTA members with non-members. It takes the value of one if the importer is an RTA member and the exporter is a non-member, and zero otherwise. It therefore, not only measures trade creation and trade diversion effects from the perspective of member countries but also extends the study of changes in trade volumes to those of an RTA member with its extra-regional trading partners. A negative coefficient suggests that RTA members import less from the rest of the world than would be expected due to the formation and implementation of an RTA, when its other economic conditions are taken into account, thus, a trade diversion effect is created and will harm the member country by reducing its welfare.

2.6 MERCOSUR and India: The Preferential Trade Agreement

The Preferential Trade Agreement (PTA) between MERCOSUR and India came into effect on June 01, 2009. The objective of the PTA, signed on January 25, 2004, was to strengthen the existing relations between the two regions and promote expansion of trade by granting reciprocal fixed tariff preferences. The ultimate objective is to create a Free Trade Area (FTA) between the two parties. Six rounds of negotiations were held between the two parties to operationalize the PTA. As on 6 November 2014 (WTO, 2014), MERCOSUR’s Member States are as follows:

- **Permanent Members** – Argentina, Brazil, Bolivia, Paraguay, Uruguay and Venezuela
- **Associate Members** – Colombia, Ecuador, Peru and Chile

MERCOSUR major commodities of exports to India in the year 2013 are Petroleum oils and crude oil which account for 85.1 percent of the total export trade followed by Fixed vegetable fats & oils (primarily soya) which sum up to 6.4 percent. The major imports of MERCOSUR from India are Petroleum oils or bituminous minerals of 43.6 percent, organic/inorganic compounds of 6.3 percent and textile yarn of 5.4 percent (UNCTAD database).

### 2.7 Studies on Revealed Comparative Advantage

International trade thrives on the comparative advantage that economies offer, as proactive players in the world market. While Ricardo laid down the basic tenets of comparative advantage, Balassa (1965) developed the concept of revealed comparative advantage (RCA). The term thus connotes the idea, that countries specialize and export items which they can produce at lower cost in comparison to the world. In Balassa’s (1986) view, the comparative advantage that a country enjoys primarily depends on its physical and human capital endowments.

Balassa’s results show that while the extent of export diversification tends to increase with the degree of technological development a reversal takes place at higher levels (Balassa 1965, 1977, 1979, 1986). Yeats (1997) uses the index of revealed comparative advantage in conjunction with the changes in the regional orientation of exports to identify any apparent inefficiency in trade patterns for the MERCOSUR group of countries.

Chow (1990) assessed the shift in comparative advantage of Japan and the Asian NICs (Newly Industrialized Countries). As opposed to conventional belief, Chow
(1990) put forth the argument that comparative advantage had not shifted from Japan. He highlighted the difference between the complementary effect and the substitution effect in manufacturing and trade. His argument lay on the basis that there may not be any shift in comparative advantages, as manufactured exports from different tier of economies are not substitutes to each other but are complementary. On the other hand, Leu (1998) presented a fairly contrasting view to that of Chow (1990). He assessed the shift in the comparative advantage from Japan to the other East Asian economies in the 1980s using the RCA index and he concludes that, in cases where the state played a crucial role in determining the social and economic conditions, a change in comparative advantages have been brought about.

Li and Bender (2003) however argued that instead of complimenting or substituting exports, the change in comparative advantage of the country, leads to gain as well as loss for the country. Fertő and Hubbard (2002) used modifications of the RCA index as developed by Vollrath (1991), namely, the Relative Trade Advantage, to analyse the competitiveness of Hungarian agriculture with the EU as its comparator. Smyth (2005) analyzed the change in Ireland’s RCA over the period 1997 to 2002. The study sheds light on the changing structure of the Irish economy as indigenous industries lose their comparative advantage to high tech sector’s driven by FDI. Widgren (2005) focused on the comparative advantage of a sample of Asian, American and European countries between 1996 and 2002. His study examined the basis of RCA for the sample countries using the Harmonised System (HS) classification at the 4-digit level.

Adding yet another dimension to the theory of revealed comparative advantage, Brackman, Garretsen and Marrewijk (2005), explain that even mergers and acquisitions follow comparative advantage. This occurs because a firm, which has a
cost advantage, is often keen to acquire another firm which is less strong than itself. On the other hand, Faustino (2008) draws a relation between intra-industry trade (IIT) and RCA.

In the Indian context, Batra and Khan (2005) assessed the RCA index at the 2 and 6-digit level of HS classification. They compared India’s comparative advantage with that of China, and also studied the RCA for each of the countries individually. The study constructed the RCA index of India and China for the years 2000 and 2003, thereby enabling it to focus on the change in the structure of comparative advantage in the latter period. The authors also examined comparative advantage of the two countries according to factor intensity using the Standard International Trade Classification (SITC).

During the 1980s and 1990s, the traditional inward-looking policies were replaced by the structural changes in the Latin American countries that were linked to trade liberalization and economic openness. Distortions in factor allocation were reduced by the efficient trade policy. For instance, in order to implement the MERCOSUR trade agreements, Argentina achieved a greater degree of economic openness and ran a successful stabilization plan.

A paper prepared by BRICS-TERN (2011) studied the bilateral trade flows between India and 166 trading partners over the 2000-2010 time periods and concluded that a larger GDP and population of India’s trading partner have a significant positive impact on bilateral trade flows while greater geographical distance reduces the trade. It shows trade creation in terms of India-Singapore CECA and also low trade creation for SAFTA and very less in case of MERCOSUR. Rajesh and Paul (2006) studied the
trade in assorted manufactured goods between India and MERCOSUR and concluded that there was trade creation rather than trade diversion between the two regions.

### 2.8 Major Findings

The growth in Regional Trade Agreements has been considerable since the 1990s and has attracted a large amount of attention from researchers and trade policy makers. Many studies on the impact of Regional Trade Agreements have documented the effects on members and non-members from regional trade agreements, for example, trade creation and trade diversion effects from participating in regional trade agreements. Because of these benefits, and in order to speed up economic cooperation with major trading partners, countries around the world increasingly pursue bilateral or regional trade and economic integration, including India and Latin America.

MERCOSUR and India are regions conscious of social inclusion alongside their development agendas. Substantial scope exists for MERCOSUR and India to explore complementarities and benefit from increased bilateral trade. MERCOSUR stands to benefit from India’s world class capabilities in software and pharmaceutical industries and export of agricultural products like soybean and corn. On the other hand, India can secure its oil and other natural resource needs by partnering with MERCOSUR countries. However, there have been hurdles in the bilateral trade relationship like protectionist measures implemented by Argentina for certain goods from India.

A distinct feature of the trade relationship between MERCOSUR and China is that a very high percentage of MERCOSUR’s exports to China are of raw commodities while imports from China have been concentrated in industrial products. One of the important factors for China’s increasing trade with MERCOSUR has been China’s direct shipping links through the Panama Canal. China also plans to build a train route
in Colombia connecting the Caribbean Coast of Colombia to its Pacific Coast (Carroll & Branigan, 2011). This will assist to channel the transport of raw materials from MERCOSUR countries to China. MERCOSUR’s engagement with China, not only in terms of increased trade but also in areas like foreign direct investment and coordination between the central banks suggests scope for strong strategic ties in future, which India cannot ignore.

With the changing balance of power internationally, India’s strategic association with a regional blocs like MERCOSUR has been long overdue. Both the regions have taken a unified stance on many international issues in the recent years. While an increased number of executive level exchanges have taken place between the two regions in the last few years, institutional level exchanges and consultations will ensure that both the sides understand each other’s unique needs, priorities and the strategic imperatives they face. With the growing number of RTAs, more attention needs to be provided to India’s strategic response to avoid trade diversion. Dynamic changes and competition effects should also be given more attention. Hence, in this context, the present study focuses on the above mentioned issues.