CHAPTER 3

REVIEW OF LITERATURE

The IT & ITeS industry occupies a strategic place in Indian economy and business. Its advancement in India have been phenomenal during the last decades. It has played a key role through its exports in putting India in the global map and has contributed considerably to the economic power of the country. Enough of studies has been done across the global analyzing the various aspects of the IT industry and specifically Indian IT industry. Recession is also studied by various researchers in terms of global economy as a global and country specific. However, the global slowdown literature are mixed and inadequate on International trade front. A lot of research has already been done across the globe analyzing various aspects of IT exports. But there are no industry specific theories to back up the impact of recession on industries. These can be classified into two categories. In this chapter, various literature regarding IT sector and specifically Indian IT exports and the context of global economic slowdown has been reviewed.

3.1 POSITION OF THE INDIAN ECONOMY IN THE GLOBAL ECONOMY

The New Economic Policy of 1991-92, opening India to the world, has given new opportunities and broken free the low-growth trap of the early 1980s. India began to appear as a player of some significance in the global economy. Following the crisis of the East Asian Tigers in the late 1990s, Indian exports began surging making India attain an apparent position in the global economy. India’s exports began to ascent, its foreign exchange reserves, which for decades had floated around 3.96 billion dollars in 1990, rose exponentially after the economic reforms and in little more than a decade to USD 304 billion dollars in 201419. In the Asian economic, political and strategic integration, India is said to “have developed a ‘global status’ as its role has stretched beyond south Asia”. In this sense, it can be said that India added the status of “principal” in the field of inter-regional flow of technology, labour and skills. Thus the makeover of India

19 Reserve Bank of India- Economic Survey of India-Table 156, Foreign Exchange Reserves
from “semi-periphery” to “center” occurred in the context of regional globalisation over the past few years.

Economic growth has been allied with increasing share of services in GDP, investment and employment (Fisher, 1935; Clark, 1940; Kuznets 1957; Chenery, 1960; Funch, 1968, Singh 2006; Papola 2008, Eichengreen and Gupta 2010) economic development would be associated with a sharp decline in the proportion of GDP generated by the primary sector, counterbalanced by a significant increase in industry and by a more modest increase in services. (Gordon and Gupta, 2004) Various explanations has been put forward to substantiate this including high income elasticity of demand for final products and services, slower growth in services and structural changes, which make contracting or outsourcing of services as more efficient than producing them in the firm or household (Banga and Goldar, 2007). In fact there is a large body of academic literature to back the role of services in the Indian economy.

India in the global economy proved resilient to the external shocks which hit other Asian economies since the mid-1990s. Since 1996 India has been the fastest growing economy in Asia after China. India’s economic growth together with its breakthrough in the international trade of information technology services, have drawn a renewed interest for the future development of this economy. The structural analysis of Indian foreign trade provides indication that India’s position in international trade is still based on its specialization in labor-intensive industries, characterized by a slow growing international demand and protected markets. It points out that the large variances in trade specialization amongst India and other Asian countries (among which China) shoot from the fact that India’s manufacturing industry has continued on the sidelines of the globalisation process, but that India has made up strong suit in service sector exports (Chauvin & Lemoine, 2003).

The Indian economy provides a revealing contrast between how individuals react under a government-controlled environment and how they respond to a market-based environment. Evidence suggests that recent market
reforms that encouraged individual enterprise have led to higher economic growth in that country. India can generate additional economic growth by fostering entrepreneurial activities within its borders, particularly within its burgeoning middle class. As per the paper, the instinct to survive under competitive pressures yields innovation and productivity increases, which eventually lead to both increased profits for business and lower prices to consumers (Lal & Clement, 2005).

In the analysis of the BRIC countries role in the global economy, referred that India offers competence in electronic services. Apart from the New Economic Policies of the 1991-92, the reforming boost has largely come from its economic diaspora in the US rather from internal makeovers. However, India still face the difficulty to absorb the millions of rural workers stagnating the market economy. According to author India has consolidated its presence in the global economy mainly through the Information technology sector. Over the years as per the author, Brazil and India have upheld the distinctive pattern of developmentalist policy set by the Keynesian economists like Raul Prebisch and Gunnar Myrdal (Almeida, 2009).

India and China would qualify as major economies in overall GDP terms, in terms of their weight in the global economy and trade and their overall technological and military capabilities. However, they would continue to be classified as developing countries, in terms of their per capita income levels, the continuing though declining, and incidence of poverty, disease and illiteracy (Saran, 2010 (revised in 2012)).

In a hearing on US- India trade relations-Opportunities and challenges, commented that India’s strong economic growth over the past two decades—including its growth of a global-class information and communications technology (ICT) software and services industry—has mostly ascended from its choice in the early 1990s to abandon the obstructive economic and trade policies that categorized the Indian economy of the 1970s and 1980s and in its place hold core creeds of free markets, open and non-discriminatory trade, and directness to flows
of goods, people, technology, and capital. Indeed, the liberalization of India’s economic and trade policies in the early 1990s have had great positive impacts on the Indian economy and its position in the global economy (Ezell, 2013).

### 3.2 ROLE OF EXPORTS IN THE INDIAN ECONOMIC GROWTH

Classical economic theories by Adam Smith and David Ricardo, argued that international trade plays an important role in the economic growth of an economy through economic gains and specialization as the basis of trade. The point of view of the neo-classical economists is that competition in international market stimulates economies of scale and increases efficacy by directed resources in sectors in which the economy has a comparative advantage. These positive externalities encourage economic growth. These theoretical arguments regarding exports-economic growth relationship have been empirically verified by economists and researchers at different times. A number of studies had adopted various statistical techniques for exploring the causal connection between exports growth and GDP growth. In the context of India, various researchers found that there exists a positive relation between exports and GDP growth.

Finds a positive relationship between exports and economic growth for India as well as for other economies of South Asia. Through the study the authors confirmed that export growth has been instrumental in accelerating economic growth in all the economies. The evidence of both short-run and long-run causality between export growth and economic growth pointed out that there are several ways in which exports can have a positive effect on economic growth. An empirical analysis carried out of the export-led growth hypothesis for Bangladesh, India, Nepal, Pakistan, and Sri Lanka. The authors further briefed that export-oriented production and investment tend to take place in the most efficient sectors of the economy fostering a pattern of production that is consistent with a country’s comparative advantages. Specialization in these sectors improves productivity in the economy leading to higher output growth (Kemal, Din, Qadir, Femado, & Colombage, 2002).
The analysis of relationship exports and economic growth in India over the pre-liberalization period 1960-1992, found strong support for unidirectional causality from exports to economic growth using Granger causality regressions based on stationary variables, with and without an error-correction term (Raju & Kurien, 2005).

The causal relationship between growth of exports and economic growth in India for the post-liberalization period 1992-2007 study result indicate that there exists a long-run relationship between output and exports, and it is unidirectional, running from growth of exports to output growth (Dash, 2009).

In the era of open economy, the objective of quality of life of citizens is becoming an increased priority for macroeconomic prosperity. Thus fast growth in GDP has become the most important aim of an economy for which export promotion is one of the top strategy. It was always a curious factor to know whether export promotion leads to economic growth or vice versa. In his journal article the author attempted a comprehensive investigation on the dynamics of the relationship between exports and economic growth over the period 1970 to 2009. Applying various statistical techniques, the author rejects the hypotheses of export led growth for India (Mishra, 2011).

India should reduce duties and taxes compared to global standard, and needs to be more liberal in service sector on which India has a comparative advantage. This study, using performance methods grounded on the endogenous growth theory that internalizes the ability to export the maximum probable exports under the factors of exports, shows that India's export performance is still behindhand that of China. The implication of this study is that India's reform actions need to be reinforced effectively to pull alongside and to outdo China (Kalirajan, K. & K. Singh, 2008).

The impact of liberalization reform on export performance of India is studied and the results suggest that manufacturing and merchandise export demand are mainly determined by the global demand. The progress in the services and
merchandise lead by resource intensive manufacturing and India’s performance of labour intensive exports is not satisfactory as such unskilled and semi-skilled labour remain unemployed, and on the other hand, much of FDI has been invested in to suit the domestic market rather than targeting the export (Paudel, 2014).

The trends in India’s exports using the time series data for the period 1980-81 to 2010-11 in the context of 1980-81 to 1991-92 (pre reform period) of New Economic Policy 1991-92 and 1992-93 to 2010-11 (post-reform period) shows that India’s exports performance improved significantly during the post-reform period and there has been a perceptible change in the value, composition and direction of India’s exports. Though the volume and value of exports has improved manifold, India’s share in the global exports is still lagging behind compared to many economies. The author analyse empirically that for India to become a leading exporter in the global trade it will have to attain at-least 2 percent share of global exports by the year 2020. India needs to reorient the shape of its exports to shift to more skill-intensive and more knowledge-intensive goods and services of viable international quality (Sahni, 2014).

3.3 ROLE OF SERVICE SECTOR IN THE INDIAN ECONOMY

The global economy is progressively considered as a service economy due to the prominence of services in developed and developing nations. In fact, the growth of the service sector has long been measured as a pointer of a country’s economic advancement. Economic history tells us that all developing nations have habitually experienced a shift from agriculture to industry and then to the service sector as the backbone of the economy. Trade in services can aid create openings for countries to develop their output of services in sectors where they have a comparative advantage, thus generating jobs, backing more to GDP and creating foreign exchange.

Enabling international trade in services has become more important in recent years as advances in technology have allowed new means of providing services across the countries. While there is little doubt that services trade is an
essential ingredient to economic growth, it is widely accepted that it can only make positive contributions if appropriately liberalized and implemented across countries (Copeland and Mattoo, 2008). An efficient services sector is crucial for the growth and competitiveness of individual firms as well as an economy. (Francois and Hoekman 2010) commented in a seminal paper: “There is increasing evidence that services liberalization is a major potential source of gains in economic performance, including productivity in manufacturing and the coordination of activities both between and within firms. The performance of service sectors, and thus services policies, may also be an important determinant of trade volumes, the distributional effects of trade, overall patterns of economic growth and development.” The export share of services in India is large and is increasing at a good pace (Eichengreen and Gupta, 2012).

The robust growth the Indian Service sector since the 1990s is mostly due to the fast growth in Information and Communication services, financial services, business services and community services. Demand side factors such as high income elasticity of demand for services, increased input usage of services by other sectors and rising exports were important in boosting services growth since 1990s. However, supply side factors like advancement in technology and favorable policies also played role in the expansion of the service sector of India. The paper analyses the potential of the Indian Service exports and its considerable scope for the future growth in the Indian service economy, provided the deregulation of sector continues. The paper highlights that the employment growth of the Indian Service sector is the modest, underscoring the importance of industry against the agriculture industry where the employment is greater than the production (Gordon & Gupta, November 12, 2003).

India’s aggregate services exports are determined by global income, exchange rate, manufacturing exports and endowment factors like human capital, physical infrastructure stocks, FDI, and financial development. India needs to focus on the supply side factors such the development of human capital, infrastructure, financial sector development, institutions etc. to improve competitiveness of services exports thereby higher exports. The paper analysed
that India’s software exports are concentrated to a few developed countries and these countries are expected to grow at a moderate rate in coming decades. Therefore, India needs to diversify software exports by targeting developing countries (Sahoo, Dash, & Mishra, 2013).

The service sector is the star performer of the Indian economy with spectacular dynamism on the Indian economic growth. Sustaining India’s competitiveness in those services where it has already made a mark such as IT & ITeS and Telecommunications is a challenge for the government. The paper suggest that to hold and develop India’s competitiveness in the service sector, complementary investments in physical infrastructure and human capital should be kept as the agenda for the economy (Tikku, 2013).

The Indian economy is having a services revolutions with a rise in global value chains. The author analysed that between 1995-2009 the share of total services value added in India’s exports has grown by 40% to reach 52% of total gross exports value, significantly above the global average of 45%, the OECD average of 48%, the BRIC countries average of 47% and the ASEAN average of 39%. The only other economies in which this ratio is higher are Singapore, United Kingdom and Hong Kong, SAR (Jane Drake-Brockman, 2014).

Recent World Bank study on developing economies services exports shows the Index of Revealed Comparative advantage (RCA)20 shares. The leading developing economies revealed a comparative advantage not only in labour intensive services such as: communication services, computer services, travel and transport but also in skill and technology services and financial services. Out of the many developing countries, India proved to have an edge over other countries in communication services, computer and information services, financial services and other business services as per the Revealed Comparative Advantage (RCA) in Service Exports for Developing exports.

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20 RCA- Revealed comparative advantage is an index used in international economics for calculating the relative advantage or disadvantage of a certain country in a certain class of goods or services as evidenced by trade flows. It is based on Ricardian comparative advantage.
3.4 ROLE OF IT INDUSTRY IN THE INDIAN ECONOMY

The studies done in this group focus on IT industry, size, revenue, employment and growth in terms of all segments of IT i.e. BPO, ITeS, Hardware etc. IT industry in context of Globalisation is an area of interest for many studies. Most of the Indian IT industry studies ground the fact that software and service sector not only contributes significantly to export earnings and GDP but also emerges as a major source of employment generation in the country. Besides, the information technology (IT) sector has served as a fertile ground for the growth of a new entrepreneurial class with innovative corporate practices and has been instrumental in reversing the brain drain, raising India’s brand equity and attracting foreign direct investment (FDI) leading to other associated benefits. These literatures gave light to the overview of the Indian IT industry, its origin and development and helped the study to analyse the trends in the global and Indian IT industry. The middle of the 90s saw two important distinct but relative developments.

1. A revolution in Information and communication technology
2. Robust Development in global trade favoring Technology, Transportability and Tradability 21

The high income demand elasticity for India’s software services has contributed substantially to its growth. But more importantly, there has been a steep rise in productivity growth in the post 2000 period which is attributable mainly to technological innovation. The paper also discuss about the sustenance of Indian economy growth during the Financial Crisis and assess that watchful, calibrated but steady approach to liberalization of key sectors has improved the economy’s resilience towards external shocks. The paper emphasizes that external demand played an important role in growth of exports of software services, at the time of crisis, the fall in external demand for these services was not as high as for further services. Advanced efficiency in this sector will enhance productivity growth in other sectors of the economy as well, predominantly manufacturing

sector and has the possible to lead to a sectorally-linked productivity spiral (Rashmi Banga and Dinesh Kumar, 2010).

The unexpected success of India’s software export sector and the spillovers of this success into various IT enabled services, should make attempts its benefits available to India’s rural masses, e-commerce for the country’s growing middle class, the use and impacts of IT in India’s manufacturing sector, and various forms of e-governance, including internal systems as well as citizen interfaces. In terms of IT services to the rest of the world, dissimilar to early negative depictions of Indian IT exports and being the work of “techno-coolies,” barely focused on low-return routine jobs such as support, India’s IT industry has widened the possibility of its exports, as well as progressively moving up the value chain. Even in the case of BPO, Indian firms have been moving from call centers to services that need advanced skilled labor or more composite output s. This sector has proved to be robust and advanced, ongoing to develop and upgrade its contributions. The export direction of the sector has backed to its competitive discipline and feat (Singh & Aurora, 2012, Revised in 2014).

3.5 ROLE OF IT EXPORTS IN THE INDIAN ECONOMY

The theory of international trade is based on comparative advantage, determined by comparative factor endowments and/or technology metamorphoses. A country will export goods which use more intensively the factors of production in which it has relative abundance. In case of IT exports, the comparative advantage lies more on the routine technical skills in developing and support of IT projects than innovative and high end technology skills. The life cycle of development and custom includes analysis and description of requirements, design, coding, testing, installation, maintenance and support. Many of these actions, particularly coding and testing, involve comparatively routine IT skills that India’s workforce has in abundance compared to other competitor countries. Hence, attributing India’s IT export boom at least partly to standard comparative advantage seems reasonable.
The studies in this group focus on IT exports, revenue, and direction etc. As India proved its success in the global IT industry, this group greatly studies on how India became a global leader in it exports, success factors in software exports, challenges from competitors in it trade etc. These literatures help to substantiate the data analysis on the trends and patterns of Indian IT exports. Why does Indian IT exports excel? What are the globalisation effects on the industry? These are some questions that plagued scholars since the advent of interest in IT exports.

IT industry entry strategies for developing countries, is known as “walking on two legs” (domestic and export leg). He believed that for the developing economies “catch up” in terms of capital outlays, labour, skills and the growing importance of technology change are difficult for software production. Identifying the difference in the learning curves of domestic and international market activities, his study suggests that countries need to pay more attention to domestic opportunities. These opportunities have high returns in terms of gaining experience and innovation in IT production and provide training that allows a broadening of software exports. In his study, the experiences of Indian IT industry is walking on only export leg, suggest that the scale and degree of sophistication of the IT industry are a function of the overall extent of computerization of the economy (Schware, 1992).

Richard Heeks is one author who has done exhaustive studies in Indian IT industry. In his paper, he explains number of skews behind the success of Indian Software Exports. The paper has highlighted the difficulties of following the Export of Services i.e. Offshoring and Export of Products i.e. package export and suggests that much of the growth achieved by the Indian Software exports have come from the Export of Labour i.e. Onsite services which is much lower in risk and other barriers. Heeks (1996, pg. 157) also suggest having a domestic oriented IT industry for improving IT competitiveness of India (Heeks, 1998).

The University Software Industry project Team, performed a detailed empirical study on the Indian IT industry. The report details the main features of the Indian Software Industry, especially its competence and weakness and its links
with the American Software Industry & the American Economy more generally. As per the report, the Indian software industry specializes in the export of low-end software development services, competing primarily on cost and availability of software talent. (Carnegie Mellon University, 2000)

The study emphasizing on the need for a structural transformation of the India’s IT export sector through enhancing its value addition capability was done. First, how to characterize India’s recent performance in software exports? Secondly, what are the implications of boom in the IT export sector on other sectors competing for the skilled manpower? Thirdly, are there any threats to the sustained growth of India’s software exports? The trends in India’s software exports in terms of its structure and growth and highlights some of the disquieting aspects of India’s IT export boom is studied in detail. It is also argued that the boom in the software export sector is likely to adversely affect the growth prospects of other sectors, which compete for skilled manpower in the short run. This is primarily on account of the resource movement effect associated with IT export boom. This in turn could have adverse effect on the growth prospects of IT sector itself in the long run (Joseph & Harilal, 2001).

The globalisation of software exporting and suggests that Governments intervene to stimulate the software exporting industry because they recognize that there is a potential for spillovers and that domestic markets do not create sufficient stimulus. The paper summarizes that Software exports demonstrates the advantages of globalisation without many of its negatives as for software export industries in these nations do not displace workers in developing and transitional nations, but instead are crowding out workers in economically powerful nations (Cramel, 2003)

Indian IT industry, a background paper presented by the author in the MIMAP meet focused on IT and gender, covering the major areas associated with IT software and service industry in India i.e. IT production, IT exports, IT industry structure and labour market situation. The role of education and training for human development, IT industry growth and economic prosperity has also been
looked into. As per the author there is enormous potential IT have in bringing changes in spheres of economy and society especially in terms of organization of production and labour market situation (Ghatak, 2004).

Software and Service Sector contributions not limited to the export earnings and GDP but also emerges as the major source of employment generation in the country. The IT industry also served as a fertile ground for the growth of a new entrepreneurial class with innovative corporate practices and has been instrumental in reversing brain drain, raising India’s brand equity and attracting foreign direct investment (FDI) leading to other associated benefits. These and other benefits, the paper argues have had an opportunity cost in terms of the adverse impact on other sectors competing for skilled manpower. The paper also try to emphasis the Government initiate of national Innovation system for developing skill and technology intensive sectors like IT through information infrastructure while complementing the role of the private sector. Thus the paper advocates the Indian experience to aspiring developing countries to develop an IT sector with a vibrant national innovation system while adopting a liberal trade and investment policy regime (Kumar and Joseph, 2005).

Offshoring cant defy gravity is a simple empirical model which relates the extent of export specialization in IT services and other high technology products to a list of economic fundamentals like the level of economic development and the supply of skilled workers. Thomas Meyer has defined IT Services Offshoring as a new form of trade and hat India’s prominence as an offshore production hub for IT services is well visible. The author illustrates that the trend in this growing specialization in skill intensive exports is about to change and that GDP per capita rise will outweigh the gains in educations and high skill specialization declines which can give a negative slope to the Indian IT exports. In the Long run, irrespective of the India’s IT specialization and offshoring, it is the level of development which will drive the comparative advantage in the production of skill intensive products. Based on the research, Meyer concludes that IT services exports with skill intensive specialization reaches its peak during 2007-2010 and
decline afterwards and may take till 2063 for specialization to rise again and until the end of this century for the current level to be reached again (Meyer, 2007).

India’s export is dominated by the medium-low technology intensive commodities. Export of low technology intensive is still prominent, while medium high technology is showing signs of development, particularly since 2000. According to the author, India has still to go long way, before making mark in export of high technology intensive commodities (Mukherjee, 2009)

An analysis on the India’s changing structure of technology intensive exports using systematic perspective is done. According to his study, technology intensive exports from the developing economies have witnessed rapid growth and an increase in their share compared with low tech or medium tech exports in international trade in the last two decades. The paper examines the changing structure of exports and its link with economic development and whether technological learning affects low, medium and high tech differently (Desai, 2013).

An empirical study aims to investigate the possible co-integration and the direction of causality between software services export and non-software miscellaneous services (business, financial, communication and other miscellaneous) export and economic growth during the period 2000 to 2008. The study using the Granger Causality Test conducted in a Vector Error Correction Model (VECM) framework proved that unidirectional causality from software services export to economic growth. Further through the impulse response analysis, the long and short run dynamics among variables are investigated. The study concludes that the amidst the competitive pressures, Indian IT-BPO industry continues to remain an attractive source due to its low cost of operation, high quality of product and services, readily available manpower and favorable time zone differences (Nath & Bhattacharya, 2013).
3.6 GLOBAL ECONOMY IN THE CONTEXT OF GLOBAL ECONOMIC SLOWDOWN

The great slowdown of 2007 is the most serious one since the 1930s. The authors focus on reforms to combat financial crisis that provides a better financial conditions in the long run of which measures that needs to be inventive, will provide sustainability and provide widened economic conditions. The crisis can form as foretop for the growth provided the enterprises come out to take chances in growing industries. According to the authors success of measures is the power of contribution and summon assistances by networking (Leadbeater & Meadway, 2008).

A detailed analysis on the severity in the global economy due to the worldwide economic crisis in the monetary system. A comparison is made between the crisis of southeast countries and crisis of the USA. The authors comment that the great slowdown has grave effects on the global economic system compared to the south Asian crisis. Transition economies which were on the verge of climbing the developing trajectory were very much affected by the recession. The authors remarks that all forecasts for transition economies from 2008 have been continuously down (Wang & Hussain, 2010).

Most of the industries around the global were suffering from the great global economic slowdown. The whole global got submerged in the recession which has led many organizations to shut down their operations and trade was affected. Many organizations are borrowed finance from the World Bank and the IMF to sustain the economic conditions of their respective nations. The crisis has exposed fundamental weaknesses in financial systems worldwide, demonstrated how interconnected and interdependent economies are today, and has posed vexing policy dilemmas (Nanto, 2009).

Most of nations are facing the effects of crisis like sluggish development of economy, growth in rising prices and increase in unemployment. Aggregate supply was based on monetary and fiscal expansion, that is, the global monetary and financial system. There were changes in economic policies and an active
policy of managing aggregate supply was introduced. Creation and implementation of new innovation policies are the ways to get over from the crisis as per the authors (Mihajlovic & Zivkovic, 2011).

The crisis has created lots of repercussions for organizations in terms of their output. The retardation of the economy in most of the countries has led to the compromising rates with the risk. Recessions have significant effects on consumer behaviors and substantial impacts on firms. According to the author, the need for a promotion is a must at the time of crisis. The role of marketing during the economic recession becomes more significant than usual times. It is necessary to understand how firms should adjust their marketing strategies to handle with recessions. If the industries have to survive then they have to create few schemes which will help them sustain the crisis (Apaydin, 2011).

The financial collapse during 2008 due to the great slowdown brings our attention to the prominence of Keynesian economics. The rise in unemployment, need for reforms are in response to the reduction in the production which caused a severity in the monetary market and crisis in liquidity left the industries without any money to render the expenditure and also payment of wages (Kregel, 2011).

The dissimilarity of entering the business through exports will create major habituation in the business at the overseas market. High dependence of trade on conjuncture in foreign markets and supported the need of further price and non-price competitiveness analysis. (Kalendience & Miliauskas, 2011)

3.7 INDIAN ECONOMY IN THE CONTEXT OF GLOBAL ECONOMIC SLOWDOWN

The impact of financial crisis on China and India shows that the deceleration in the growth rates in the developed countries due to financial crisis will have major impact. As India and China witnessed a rapid growth in the last decade any decline in growth rates will not only increase unemployment but create explosive situation high regional inequality. The author argue that that the
current global financial crisis has witnessed a clear failure of the economic model of neoliberalism which favors amount of FDI inflows and also rise in exports will create jobs and improve living conditions in the developing countries (Siddiqui, 2009).

Great Slowdown which started in December 2007 in the US had an extensive negative impact on the global economy. During the first half of the crisis, 2008-2009, the global GDP declined by 1.1% with 3.4% drop in GDP of developed countries while Indian economy managed to grow at a modest rate of 5.3%. In contrast, even during the height of the recession, the Indian economy managed to grow at a modest rate of 5.35 percent in 2009. But this positive growth rate in India was substantially lower than the average growth rate of 8.72 percent during the five years prior to the financial crisis. (Bhattacharjee and Mandal, 2012)
3.8 INDIAN IT EXPORTS IN THE CONTEXT OF GLOBAL ECONOMY

The global crisis resulted in the drop of need for products and lower aggregate demand. According to this paper there was a negative impact on the Indian IT, especially on the developed domains and many employees were laid off from their job (Kaur, 2010).

It is evident that the service sector growth of developing economies is much faster than the developed economies. A World Bank paper by Aditya Matto and Ingo Borchert, highlights how resilient global trade in services has been even as trade in goods has plummeted. Amongst service exports, IT exports stood more resilient than any other sectors According to the world Trade Report2013, Service sector in during 2007-2013, recorded a 5% annual growth (current prices) with more than 30% contribution from the developing economies. Trade through temporary movement of people skills is an increasingly imperative factor of service exports for developing countries. As of 2013, the global service exports stood at 4.7 trillion USD compared to 3.54 trillion USD.

Global current account imbalance is evaluated and different views on the causes and consequences of the imbalance are discussed. The paper discuss the various macroeconomic policies and shocks that might remedy the imbalances. In terms of specific sectors, the IT Enabled Services sector may be hit since a majority of Indian IT firms derive 75% or more of their revenues from the United States-a classic case of having put all eggs in one basket. If Fortune 500 companies slash their IT budgets, Indian firms could be adversely affected. Instead of looking at the scenario as a threat, the sector would do well to focus on product innovation (as opposed to merely providing services) (Raval & Kamble, 2011).

During 2008-2010, the global economic conditions was seriously dented by the global economic disaster and has led to a steep fall in demand for goods and services. The authors predicted that the worst affected services are construction,

22 World Bank, World Development Indicators- IBRD Metadata. Service exports (BoP, current USD) accessed on Aug 21, 2014
transport, communications, trade, hotels and restaurants. According to the paper, the IT and BPO sector are among the worst affected sectors in India by the recession as India’s IT is dependent on 75% of its revenue from USA. Hence the IT Sector anticipates a fall of 50% in earnings (Khan and Mehtab, 2010).

Firms in the developed countries are more susceptible to shock than the developing countries. Based on the industry analysis performed, the authors found that there exist higher volatilities in high-tech and lower volatilities in manufacturing sector. High tech industries, such as software, computer and biotech are likely to experience higher degree of innovation, uncertainty and dynamism than manufacturing industries such as food, textile and other basic needs (Makaew & Maksimovic, 2013).

IT plays an important role in a country’s economic development in terms of the growth in output and improved productivity. 2009 Global Economic Forum Annual Meeting Report, highlighted that, “With coordinated, conscientious leadership, new technologies will not only continue to fuel growth but if harnessed, such advancements will also enable a digital revolution that can uplift parts of the global hitherto not reached by the agricultural and industrial revolutions. Achieving this kind of inclusive growth requires new mindsets.” Ability to use ICT is critical for economic development because it improves the efficiency of all sectors of the country. A country which spends on IT better the prospects of movement of skills online across the countries whose exports were previously constrained by high transport cost and small domestic markets.

In 2005, Dale W Jorgenson of Harward co-authored a study showing that technology’s share of the global GDP growth has grown from 11% in the late 1990s to 15% in the early 2000s. In 2007, he co-authored another study that demonstrated how, in the US, the share of growth in value added in the economy created by the IT industry was five times its share of value added itself.  Also in

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2007, Erik Brynjolfsson of the MIT Sloan School and Lorin M. Hitt of the University of Pennsylvania, documented the importance of technology on productivity growth in one thousand Fortune 500 companies. From literature reviews mentioned above, it is clear that the IT sector is critical to the world economy and to India specifically based on the role it played to give a brand image in the world.

The most dynamic service sectors during the global economic slowdown were computer and information services with 9.1% annual average growth, followed by personal, cultural and recreational services (8.9%), then by other business and professional services (6.8%). It is in computer and information services sector that developing economies record highest growth rates 13% on an average annually since 2008, compared to 7.5% for developed countries. It is evident that the IT sector showed a good performance during the global crisis, compared to other industries and the IT Software and IT enabled Services (IT & ITeS) are the segments within the IT industry which were less affected by the economic slowdown (UNCTAD, 2014).

Although the empirical literature continues to grow unabated, its overall message can be summarized in the following propositions, some of which shall be put to examination in this study. US Domination in Software exports market might present a limitation to future growth because US share of the global market is slowly declining. Focus of IT exports trending to growth in other markets, such as those of Asia and Europe. Export-oriented service sectors have become highly important in some emerging economies like India. The gravitational point of view suggest that these sectors especially when they have relatively high technology content as in the case of software, might have the possibility to power export growth more strongly than export-oriented sectors product.