CHAPTER II
REVIEW OF LITERATURE

This section presents the review of the research studies carried out in past in the field of Multinational Companies in general and performance related aspects of multinational companies in host countries in particular. As most of the multinational corporations are shifting their production activity to the developing nations, hence, this section aims to highlight the research outcomes of the relevant studies relating to different aspects concerning MNCs.

Marcus (1969) conducted a study to determine the relationship between size and profitability of the firm. Taking a database of three years for the period 1959-60 to 1961-62 for firms operating in manufacturing sector, Regression analysis was applied to attain the results. The results revealed that the size of the firm was found to have no influence on the profitability of 74 out of 118 firms. This lead to the conclusion that size of a firm cannot influence all the industries in manufacturing sector. This may be due to the reason that, besides size, profitability of a concern is also a function of many other factors such as product prices, factor prices and production function, whose relationship with size may in turn determine its relation with profitability.

Severn and Laurence (1974) conducted a study to explore the factors associated with high rate of return on the foreign investments made by the U.S. based companies. The study used factors such as inter-relationships among research and development, direct investment and reported profitability to attain the objectives. A set of manufacturing companies having foreign investments were compared with a control group of 70 domestic companies. Analysis of the data revealed that more profitable firms of the industry were those either having foreign investment or were having high R&D. Therefore, profitability was regressed both on R&D and direct foreign investment. The results revealed that both of these factors were strongly associated with profitability. However, a positive association was not found between profitability and foreign direct investment. Therefore, the study concluded that foreign investors
tended to operate in research–intensive industries instead of foreign investment. The study further highlighted that such R&D was a cause of comparatively high profitability of these investors. The generalization of these results was also maintained while assessing economic return besides accounting returns.

Agarwal (1976) conducted a study to examine whether foreign firms were more capital intensive than domestic firms in large scale manufacturing in India. The study also attempted to analyze the causes of any such differences in their factor proportions. The sample of the study was drawn from 34 out of 35 Indian manufacturing industries classified at three digit level of classification of Indian industries (CIIs) in the year 1969. Two measures of capital intensity i.e. average productive capital per employee (both fixed and working) and average value added per employee were considered for the purpose of the study. By applying simple statistical technique of averages, the study revealed that for 22 out of 34 industries, foreign firms were found to employ more productive capital per employee than domestic firms, whereas in remaining 12 industries, the situation was reverse. Furthermore, the average value added per employee for foreign firms was higher in case of 31 industries when compared with domestic firms. The weighted average score of all industries taken collectively revealed that foreign firms were having nearly 16 per cent more productive capital per employee than domestic firms and realized nearly 67 per cent more value added per employee than their domestic counterparts. The study pointed out that the causes of higher capital intensity of foreign firms were factors such as high wage cost per unit of labor in foreign firms, easy access to financial as well as capital markets leading to lower borrowing cost, higher technology adoption and lesser pressure from forex and import regulatory authorities.

Lim (1976) analyzed data relating to foreign and domestic firms in Malaysian manufacturing industry to evaluate their capital utilization. 350 establishments chosen from 28 industries in manufacturing sector in the year 1972 (constituting 10 per cent of the total Malaysian manufacturing establishments) formed the sample of the study. By using Winston measure (measuring capital utilization by number of hours and
intensity), the study found that the foreign owned and controlled establishments tended to have a longer and more intensive capital utilization than their Malaysian counterparts. Furthermore, a Step-wise multiple regression analysis was carried out to determine factors causing such higher capital utilization of foreign establishments. These results revealed that higher capital utilization of foreign enterprises was not due to the presence of direct investment but due to their size, relative factor and capital intensity.

**Morgenstern and Muller (1976)** conducted a study to compare the export performance of multinational and domestic firms in 10 Latin American countries. The database of the study consisted of 257 firms out of which 94 foreign owned, 53 joint ventures and 110 domestically owned firms. The exports of these firms accounted for more than 25 per cent of the total manufactured exports of Latin America region. Results of Multiple Regression analysis found that MNCs were not exporting more as compared to domestically owned firms.

**Rugman (1976)** conducted a study to enunciate whether multinational firms were able to reduce the risk of variance in their profits than similar sized national firms in United States. Ten year data for the period 1960-1969 for 500 United States corporations formed the base of the study. Empirical results of Least squares regression analysis revealed that the foreign operations turned out to be statistically significant and inversely related to variance of profits after controlling for the variables such as size and industry classification. On the basis of these findings, several policy implications were suggested by Rugman i.e. firstly, in order to reap the benefits of international diversification indirectly, the individual risk-averting investor should purchase shares in multinational corporations. Secondly, foreign governments may also take its benefit by imposing an "optimum tax" on multinationals. Lastly, this diversification phenomenon may lead to world economic integration where knowledge, research, and technology can be freely bought and sold. However, the study also pointed out that these developments will ultimately lead to the eventual fading away of the benefits of international diversification to these multinational firms.
Fairchild (1977) conducted a study in Mexico to examine the effect of ownership structure on firm’s performance. Measures such as intensive interviews with general managers and collection of firm level accounting data were carried out to form a comparison base of innovative activity and technology sources used by domestic Mexican and foreign US joint venture firms. The sample of the study was based on 25 foreign firms and equal number of domestic firms in manufacturing sector during an eight year period of 1966-73. Techniques such as percentages and a student-t, two tailed test were applied to attain the results of the study. The results suggested that in terms of profitability, growth and export performance, the domestic firms were competing successfully with foreign firms in Mexico. Furthermore, rather than import of foreign technology through formal channels, innovative activity and use of domestic consultancy were found to be significant factors for maintaining competitive position of domestic Mexican firms as against US joint venture firms.

Jenkins (1979) conducted a study to analyze the export behavior of multinational firms in Mexico in comparison with domestically owned firms. 658 exporting firms from 17 industries in the year 1974 formed the database of the study (out of which 154 firms with ‘majority’ foreign-ownership, 64 firms with ‘minority’ foreign-ownership, 70 domestic owned ‘with foreign technology’ and 370 domestic owned firms ‘without technology contracts’ were included). The percentage wise analysis revealed that in the traditional industries such as food, textiles and leather etc., domestic firms were having a higher export propensity. However, for engineering goods industries, exports of foreign firms were found to be higher. Jenkins opined that lower export performance of foreign firms in traditional sectors might be due to certain kind of tariff as well as non- tariff barriers. As far as engineering goods were concerned, higher performance of foreign firms could be attributed to factors such as international division of labour and availability of marketing advantages of brand names & trade marks etc. The analysis further revealed that degree of ownership share of foreign firms was not having any significant affect on their export behaviour. In addition, foreign firms were also earning lesser foreign exchange earnings as compared to domestic firms.
Constas and Vichas (1981) attempted to compare the efficiencies of domestically owned firms with foreign subsidiaries operating in the service industry of Puerto Rico. Foreign subsidiaries from the USA, the UK and Switzerland and domestic firms from Puerto Rico formed the database of the study. 19 large corporations (11 domestic and 8 foreign wholly owned sales subsidiaries) out of a population of 23 corporations for the period 1973-1976 were considered. Analysis revealed that foreign firms were having a higher value added per year along with lower operating expenses than their domestic counterparts. Furthermore, application of Linear Regression Model was carried out in order to investigate the relationship between value added and operating expenses. The results confirmed that in the initial years, foreign subsidiaries were showing a distinctly superior resource management. However, in the last year of the observation, management of domestic companies showed a greater improvement in lowering operating expenses as well as their tendency to imitate the models of technological and managerial efficiencies of the foreign firms.

Asheghian (1982) conducted a study to examine the comparative efficiencies of domestic Iranian (IA) and Iranian-American Joint Ventures (IAJV) firms during the pre-revolutionary period of 1971-1976 (a period of initiating industrialization in this country). Paired comparisons in the form of Wilcoxon-Matched Pairs and Signed Ranks test were used to attain the objectives of the study. The study concluded that Iranian-American Joint Venture (IAJV) firms were exhibiting a higher efficiency than the domestic Iranian firms as capital; labor and total factor productivity was found to be higher for the former group. Asheghian proposed that the higher capital productivity could be related to the experience of these IAJV multinationals in the technology oriented products whereas the higher labor productivity may be attributed to high wage and non wage benefits, better supervision and training to IAJV firms. In addition, the study suggested that higher factor productivity of foreign firms could be due to their efficient management processes or superior technology as compared to domestic Iranian firms.
Douglas and Craig (1983) examined the relationship between two performance measures (ROI and market share) in three different geographic areas i.e. United States, Europe and other foreign markets. The database of the study consisted of a non-random sample of 726 U.S. based, 39 European and 36 firms from the other parts of the world. The application of statistical techniques of Correlation and Multiple Regression Analysis confirmed the existence of a strong positive relationship between two performance measures for all three geographical areas. Secondly, factors related to performance measure (market share and ROI) were found to be different for different geographic areas. Whereas, for U.S., ‘product-related variables’ and ‘price’ were found to be related to high market share, ‘sales force expenditure’ was negatively related with the same. However, in European markets, only ‘product quality’ was related to market share. Similarly, in other foreign markets, ‘product quality’ was again related to market share, and as in the case of the U.S., there was a negative relationship with development of new products. Lastly, besides these exclusive variables, differences in the nature and magnitude of the effect of these variables was also observed from one region to another.

Lall and Mohammad (1983) made an attempt to analyze the influence and role of foreign ownership in the export of manufactured products by large private corporate sector in India. By applying the statistical technique of Ordinary Least Squares Regression in log linear form, the study concluded that due to inward looking nature of economy, all manufacturing firms, whether local or foreign were not ‘primarily’ export oriented in India. Moreover, highly restrictive FDI policy of India also contributed to this small export orientation of MNCs. However, due to their monopolistic advantages, these MNC firms tended to be better exporters as after controlling for industry specific factors and export incentives, foreign presence and shareholding in large manufacturing sector was found to be positively associated with export intensities in India. Though the statistical evidence for this association was low, yet this evidence was countering the findings of the previous studies showing a negative association between the two.
Lecraw (1983) conducted a study to determine the profitability of direct investment by Transnational Corporations (TNCs) in Least Developed Countries (LDCs). The data for the study consisted of a non-random sample of 153 subsidiaries of TNCs operating in 6 manufacturing industries in five ASEAN countries for the year 1978-1979. Application of Regression analysis revealed that TNCs based in different home countries were operating abroad based on different competitive advantages (firm-specific assets) developed as per home country factors and product market conditions. In addition, TNCs from different countries differ in size, capital intensity, product and process R&D intensity, advertising intensity, propensity to export and to import raw materials, use of foreign workers, equity participation, and so on. It was also found that profitability of the firms increased in response to increase in firms’ market share, advertising and R & D intensity and tariffs. However, the same was decreasing with increase in factors such as import penetration and growth in firm’s sales.

Shapiro (1983) attempted to explore the factors determining the comparative profitability for large Canadian manufacturing firms. 460 foreign (divided into U.S. owned foreign firms and other foreign firms) and 290 domestic firms for a four year period of 1968-1972 formed the database of the study. The determinants were examined within the “structure-conduct-performance” framework developed in the industrial organization literature. Three profitability variables i.e. GPS (ratio of gross profit to sales), EBIT (ratio of earnings before interest and taxes to net assets) and NPK (ratio of net profits rate to capital employed) were regressed by OLS method on variables such as firm size, concentration, leverage, profitability variance over time and capital turnover rate etc. After controlling for various industry and firm specific factors, U.S. controlled foreign firms were found to be more profitable than both domestic and other foreign firms. These results were in conformity with Hymer-Cave Internalization Approach insisting that MNC advantage originates in monopolization of an asset rather than by operations in external markets.

Meredith (1984) conducted a study to investigate the applicability of marketing variables to explain U.S. multinational corporate investment in Canadian
manufacturing industries. The study also attempted to evaluate the use of a "comparative variable" approach by taking both the host and home country variables such as market risk, wage differentials and market concentration in a relative context. A cross sectional data set of 50 industries in the manufacturing sector operating during the three year period of 1972-1975 was analyzed by applying Regression Analysis. The results confirmed the existence of a significant relationship between U.S. originating spillovers and multinational presence. U.S. advertising spillovers, marketing management expertise and comparative advertising/sales ratios acted as determinants of U.S. subsidiary market share in Canadian industries. Furthermore, performance of the "comparative variables" in regression was also found to be impressive.

Michel and Shaked (1986) carried out a study to examine the financial performance as well as some selected financial characteristics of the multinational and domestic corporations in America. The sample of the study consisted of 58 MNCs and 43 domestic companies as control group in manufacturing sector. Two approaches were used to attain the objectives. Under the first approach, individual firm performance was measured using Sharpe, Treynor and Jenson measures for six five year sub-periods i.e. 1973-1977, 1974-1978 and 1978-1982 for two groups of foreign and domestic firms. Under the second approach, separate portfolio performance for MNCs and domestic firms was determined. The analysis revealed that on using market based performance measures, domestic corporations were found to have a superior risk adjusted performance. However, MNC group was having a lower total as well as systematic risk as well as return. On comparing selected financial characteristics, t-test confirmed that MNCs were having lower equity variability (consistent with the hypothesis of “total risk reduction”) as well as more capitalization than domestic corporations. However, the study failed to find any significant influence of size on group performance.

Willmore (1986) analyzed data for 282 pairs of foreign and domestic Brazilian firms matched by sales and by four-digit manufacturing industry. The results revealed that the differences between the two types of firms were large and highly significant.
Foreign firms were found to be operating fewer plants, employing more capital intensive techniques of production as compared to their local counterparts that in turn resulted in economies of scale, higher ratio of value added to output. Foreign firms were also found to have greater exports, higher wages, higher advertising intensity and making high remittances on account of royalty and technical assistances even after controlling for the factors such as firm size and industry. Furthermore, labor productivity was also found to be higher in foreign firms due to employment of higher skilled labor as compared to domestic firms in Brazil.

Grant (1987) conducted a study to explore the nature of relationship existing between multinationality and performance. The sample of the study comprised of 304 large quoted British owned manufacturing companies over a sixteen year long period from 1972-1984. Multinationality was measured by firms' overseas production ratio i.e. the sales revenue of overseas operating subsidiaries as a proportion of total firm sales. Similarly, performance was measured by sales growth and profitability. Application of statistical technique of Ordinary Least Squares Regression revealed that overseas production ratio (multinationality) was having a positive and significant influence on profitability as well as sales growth.

Athukorala and Jayasuria (1988) in a study comprising of data for 132 Sri Lankan manufacturing firms found that firms affiliated with developing country MNEs employed significantly more capital intensive technology than either domestic private firms or developing country based MNEs only for textiles and wearing apparel industries. However, in chemicals and metal products, such a difference in capital intensity was not found to be statistically significant.

Fong and Salehizadeh (1989) carried out a study to compare the financial performance of a group of U.S. multinationals with U.S. based domestic corporations (DMCs). The sample of the study consisted of 32 MNC firms and 30 domestic firms for the three five year periods i.e. 1979-1983, 1980-1984 and 1981-1985. Capital Asset Pricing Model (CAPM) was applied for measuring the risk adjusted financial return. Further, other performance measures such as Jenson, Treynor and Sharpe were
applied on the data. The results based on these performance measures were further compared with the help of statistical technique of “t-test” for both groups. The analysis revealed that the risk adjusted financial performance of the MNC as well as domestic corporations was becoming increasingly comparable to each other. However, application of one way ANOVA found no significant impact on variable size on firm performance.

**Kim and Lyn (1990)** conducted a study in United States to determine whether foreign multinationals enjoyed any advantages over domestic U.S. firms. The sample for the study consisted of 54 largest listed foreign firms and an equal number of randomly selected domestic firms operating in United States. The study analysed financial ratios as well as market based performance measures for the portfolio of foreign and domestic firms for a five year period of 1980-1984. In addition, univariate analysis of “unpaired t–test” was also applied and the results revealed that foreign firms didn’t possess higher economic rent or profitability over the domestic U.S. firms. However, the foreign firms appeared to have higher R&D but lesser advertising intensity than domestic U.S. firms. In spite of this, the domestic firms were found to be more efficient than foreign firms. Further, for determining the factors affecting market value of these firms, regression analysis was applied which revealed that for foreign-owned firms, leverage, liquidity and firm size were significant determinants, whereas for domestic firms, advertising and R&D intensity, growth rate, leverage and liquidity proved to be important.

**Kumar (1990)** analyzed the determinants of profit margins of Multinational and domestically controlled enterprises in 43 Indian manufacturing industries. Application of Regression analysis (both in original and logarithmic form) revealed that protection granted by entry barriers caused MNEs to perform better than domestic enterprises. Kumar pointed out that technological and human knowledge of the domestic counterparts failed to match the persistent advantages accruing to MNEs derived from their past investment in R&D. Therefore, MNEs tended to operate in quality conscious upper end of the market fetching higher prices, whereas domestic enterprises managed to get only price competitive lower end of the market. However,
the study could not find any significant advertisement intensity of MNCs in Indian manufacturing setting.

**Mahmood and Hussain (1991)** compared foreign and domestic firms in manufacturing sector of Pakistan. The database of the study consisted of 32 matched pairs of foreign and local firms in 25 manufacturing industries in Pakistan in 1981. The findings of the study revealed that foreign firms used more capital as well as skill intensive techniques. Due to this, the foreign firms were enjoying a higher labor productivity than domestic Pakistani firms even after controlling for the factors such as capital and skill intensity.

**Nakamura (1991)** considered a short run model for evaluating the profitability and growth performance of US owned subsidiaries in Japan. The study also tried to estimate the impact of parent firm’s investment in R&D and its ability to transfer some specialized intermediate goods to its subsidiaries on their performance. The study was based on 8 fully and 12 jointly owned subsidiaries in chemical sector of manufacturing industry operating during the period 1984-1988 in Japan. Results of Multiple Regression Analysis revealed that R&D activities of both U.S. and Japanese parent firms’ were proving to be a contributing factor for the profitability and growth of their subsidiaries. Similarly, specialized imported goods from the parent firms’ were also contributing to their profitability and growth. Furthermore, considerable differences were observed in the profit behavior of fully owned and jointly owned subsidiaries. However, it was not clear that whether the basis of such difference was ownership or small size of the sample.

**Willmore (1992)** applied Logit model on cross section observations of 17,053 Brazilian manufacturing firms and found that foreign ownership has a large positive effect on the export performance and import propensities independently of other determinants of trade. Foreign ownership also had positive impact on other factors such as firm size, skill intensity, productivity and advertising etc. The study further found that MNC affiliates had firm specific advantages over domestic firms. The study also concluded that size-firm relationship was like an inverted “U” in which
the gain from size diminish with increased size and would eventually become negative.

**Globerman et al. (1994)** carried out a study to compare the economic performance of foreign (United States, Japanese and European) and domestically owned establishments in Canada by taking their relative productivity into account. The sample of the study consisted of a cross section data set for 5,553 domestic and 608 foreign owned establishments (458 U.S., 112 European and 38 Japanese owned firms) operating in the year 1986. Results of Ordinary Least Square Regression Analysis revealed that foreign owned firms were enjoying a substantially higher value added per employee (labor productivity) than their domestic counterparts. However, such differences disappeared after controlling for factors such as capital intensity and size. Furthermore, foreign owned enterprises were also found to pay higher wages to their workers than their domestic enterprises. However, this wage difference again vanished when factors such as size and capital intensity were controlled.

**Kumar and Siddharthan (1994)** conducted a firm level study to analyse the inter-firm variations in the export performance of Indian enterprises. The study consisted of a panel data set of 640 firms chosen from 13 Indian manufacturing industries for a three year period ranging from 1987-88 to 1989-90. By applying Tobit model of regression on data, it was found that in developing countries such as India, positive influence of technology on export performance was found only in medium and low technology industries but not in high tech industries. Based on these findings, the study suggested that for encouraging manufactured exports from host countries, negotiations with MNEs regarding export obligations can turn out to be effective.

**Kumar (1994a)** examined the discriminating characteristics of domestic and foreign-controlled firms by using a cross section data set in the year 1980-81. The study projected the foreign share in assets or sales of the organized private corporate sector in India to be around 23 per cent by the end of eighties. Such share was found to be highly varying among individual industries in the manufacturing sector as such share was as high as 98 percent in leather products to a low of 7 per cent in textile
machinery. Furthermore, foreign-controlled firms were found to have lesser R&D intensity (presumably due to their reliance on technology imports) than domestic firms. Furthermore, no significant difference was observed in two groups of firms as far as expenditure on advertising and export orientation was concerned. In spite of this, foreign controlled firms were found to be significantly more profitable in their operations.

Kumar (1994b) attempted to find out determinants of exports orientation of FDI firms. Empirical analysis of inter country pattern of export oriented investments made by US MNEs across 40 countries. The results of OLS Regression Analysis revealed that the extent of export oriented investment attracted by a country was determined by the factors such as wage level, industrial capability, infrastructure and the presence of export processing zones. However, factors such as government policy towards FDI (e.g. incentive and performance obligations) or the overall international orientation of the economy were not found to be affecting export orientation in a significant manner.

Subrahmanian and Joseph (1994) made an attempt to compare the export performance of foreign controlled and domestic firms in India during liberalized policy regime of nineties. A sample of 50 foreign controlled and an equal number of domestic companies operating during the period 1990-1992 formed the database of the study. Analysis of export-output ratios revealed that at aggregate level, foreign firms were performing poorly than their domestic counterparts. However, at disaggregated level, foreign firms were found to be performing better in ‘scale-intensive’ industries such as chemicals, automobiles as well as in ‘technology-intensive’ industries such as industrial machinery and electronics. On the other hand, domestic firms were performing better in ‘labor-intensive’ or raw material based industries. Further application of Ordinary Least Squares (OLS) based Multiple Regression Analysis revealed that foreign firms did not prefer to exploit domestic market than exporting even in the products where they had comparative export advantage. The study suggested that induction of foreign ownership/control is not enough for achieving the broader policy goal of export growth rather a policy
approach of "selective" liberalization and incentive structure based integration with the world economy should be adopted to accomplish in a developing country such as India.

**Athukorala et al. (1995)** conducted a study by using firm level data from the Sri Lankan Manufacturing in 1981 in order to investigate whether MNEs (divided into developed country and third world multinationals) were more export oriented than wholly owned domestic firms. A total of 111 firms accounting for 75 per cent of total private sector manufacturing output and 82 per cent of total manufactured exports were chosen as a sample for the study. Application of OLS as well as Probit models of Regression found no significant difference in export orientation of Developed Country MNEs (DCMNEs) and domestic Sri Lankan firms. However, Third World Multinational Enterprises (TWMNEs) were found to be performing better than domestic firms which further support the notion that these TWMNEs may act as significant contributors to manufactured export growth of other developing countries. Moreover, rather than nationality of the firms, industry characteristics and trade policy regime were found to be more important factors. The study suggested that in order to improve their export propensities, countries having larger domestic markets such as India and Brazil should review their policy incentives to attract foreign manufacturing firms.

**Pant (1995)** made an attempt to compare export performance of foreign and domestic firms in India. The sample of the study was based on of 218 chemical and 202 engineering firms of Indian manufacturing sector. Application of OLS and Logit models of regression found no significant difference between export orientation of MNC affiliates and domestic Indian firms with an exception of pharmaceutical industry where domestic firms were actually outperforming foreign firms.

**Aitken et al. (1997)** examined the hypothesis that MNCs act as a catalyst of export by taking a panel data of 2,113 Mexican manufacturing plants for the period 1986-1990. The results of Logit Model of Regression revealed that after controlling for factors such as factor cost, output prices and other variables affecting export decision, MNEs...
were roughly likely to export twice than domestic firms. Moreover, domestic firms located near a multinational exporters were found to have higher probability to export than other domestic firms, pointing towards the presence of spillovers arising from MNCs.

**Majumdar (1997)** in his research attempted to investigate the impact of factors such as size and age on economic performance of firms in Indian industry. An extensive firm-level data set for 1,020 Indian firms for a six year period ranging from 1988 to 1994 was taken from CMIE PROWESS Database. Results of Regression Analysis revealed that larger firms were less productive but more profitable than smaller firms in India. Furthermore, older firms were found to be more productive but less profitable as compared to young firms. The study also found that firms with foreign ownership outperformed domestic owned firms. The study concluded that these findings can be attributed to the institutional framework and industrial policy instruments such as restrictive entry policies of Indian economy.

**Omer et al. (1998)** examined the marginal benefits accruing to U.S. based multinational corporations through the mode of increased overseas investment. Specifically, the study sought to determine whether increased degree of multinationality was able to produce any additional benefits for firms by way of excess returns and/or reduced risk. A total of 352 firms were selected for a six year period of 1988-1993 that were further sub-divided on the basis of high, intermediate, and low degree of multinationality. Firstly, Jensen’s (1968) measure of financial performance was applied to calculate the estimates about excess return and systematic risk for all three groups of multinational firms. In the second phase of the analysis, statistical techniques such as t-test, Wilks-Shapiro test statistic and Regression Analysis were applied to determine whether estimates of excess returns and systematic risk differed for firms with varying degrees of international diversification. The results revealed no significant influence of degree of multinationality on returns and risk performance of the sampled firms.
Kathuria (1998) attempted to compare the performance of foreign and domestic firms in India. The study was based on 277 firms drawn from 18 manufacturing industries covering a five year period from 1984-85 to 1988-89. The study found that foreign firms were more vertically integrated; having a higher capital goods import intensity as well as export orientation. Foreign owned firms were also paying higher salaries as compared to domestic firms and were also more R&D oriented. Moreover, the total factor productivity of the foreign firms was also observed to be higher than their local counterparts.

Ramachandran and Shah (1998) conducted a study to understand the relationship between value added and foreign ownership in manufacturing sector in South Africa. The study consisted of 132 firms from Zimbabwe, 134 from Ghana, and 150 firms from Kenya drawn from four sectors i.e. food processing, wood and furniture, textiles, and metalworking. The Firms having foreign ownership were found to be larger and having better trained managers. Furthermore, while domestically owned firms were concentrated in the textile and garment industry, firms with greater foreign equity were dispersed into food, metal and textiles sectors. Furthermore, foreign ownership was found to have an effect on the value addition of the firm only beyond a certain level of ownership (greater than 55 percent). The study also found that foreign ownership might bring with it many benefits that domestic ownership fails to provide such as “know-why” surrounding know-how, timely access to inputs, finance, maintenance personnel and sources of information about technology and markets. Foreign firms were also found to exert their market power through high investment in R&D, advertising, and other measures that resulted in a higher value of sales and raised barriers to entry.

Pan and Chi (1999) studied the impact of factors such as entry timing, mode of entry, market focus and locational advantages on financial performance and survival of multinational corporations in China. A sample of over 1,000 MNCs out of a universe of 22,744 foreign enterprises in the manufacturing sector during a two year period of 1993 and 1994 was taken. By employing the statistical techniques of percentages and Ordered Response Multiple Regression (ORL), it was found that the timing of market
entry was certainly affecting financial performance as MNCs making an early entry were more profitable than late starters. Furthermore, MNCs having focus on the domestic Chinese market were also turning to be most profitable. Moreover, mode of entry was also having an affect on performance as Equity Joint Ventures in China were found to be more profitable when compared to cooperative operations and wholly foreign-owned subsidiaries. Locational aspect was also found to be significant as MNCs located in national municipalities and open coastal cities were profitable as compared to operating in SEZs. Furthermore, from survival aspect, foreign MNCs receiving tax benefits and located in municipalities had greater survival chances.

**Kumar and Aggarwal (2000)** analyzed the determinants of R&D activity of Indian enterprises using an unbalanced panel data set of 840 companies in manufacturing sector for a seven year post-liberalization period of 1992-93 to 1998-99. The study found that R&D activities of MNEs had increased with a rapid pace in the post-liberalization era despite of a nasty start initially. However, application of Multiple Regression Analysis revealed that after controlling for extraneous factors such as firm size and profit margins, R&D intensity of MNE affiliates turned out to be lower than domestic firms, probably due to the captive access to their parent and associated companies’ laboratories. Moreover, the nature of R&D of firms was also different as domestic firms were focusing on building in-house technological capabilities, exploiting product adaptations (e.g. in engineering industries) and process innovations (as in chemicals and pharmaceutical industries) opportunities. On the other hand, MNE affiliates’ focus was on customization of parents’ technologies. Therefore, domestic firms’ perspective of R&D activity had more favorable externalities for building up of locally-anchored technological capability and internationalization of domestic economy than MNE affiliates.

**Liu (2000)** conducted a study to compare the labor productivity of Foreign Invested Enterprises (FIEs) with that of State Owned Enterprises (SOEs) and Other Locally Owned Enterprises (OLOEs) in China. A Cross section dataset for 191 firms during the year 1997 formed the sample of the study. Application of Regression analysis revealed that Foreign Invested Enterprises (FIEs) were exhibiting a significantly
higher value added per worker than both State Owned Enterprises (SOEs) as well as Other Locally Owned Enterprises (OLOEs). Liu was of the opinion that this higher productivity of FIEs could be attributed to the higher level of embodied technology, higher labor quality and other advantages specific to FIEs such as managerial skills and superior technologies. The study suggested that though FDI should be further encouraged but at the same time domestic investment in physical and human capital should also be encouraged. The study also recommended the further deepening of economic reforms to increase allocation efficiency.

**Pfaffermayr and Bellak (2000)** examined performance gaps among 524 foreign-owned and domestically-owned Austrian manufacturing firms for a three year period of 1997-2000. Rather than taking a random and representative sample, only ‘fixed test group’ consisting of mainly large and mature firms was formed to achieve the objectives. Application of Kruskal-Wallis Test revealed noticeable differences in the characteristics of foreign and domestic firms in terms of productivity and profitability. The study further found that foreign firms were significantly larger than domestic firms in terms of employment, sales, productivity, capital intensity and export orientation as well. However, as far as growth in size and productivity were concerned, no significant differences were observed in both group of firms.

**Aggarwal (2001)** attempted to analyze the export enhancing role of MNEs in Indian manufacturing sector. The study was based on 916 firms classified into 33 industries operative during the period 1996-2000. By application of the Fixed and Random Effects Tobit models of Regression analysis, the exports model with technology, cost and scale variables was estimated. The results revealed that MNE affiliates were better performers than domestic firms in the post liberalization era though no such evidence for pre-liberalization era was available. Therefore, the results of this study confirmed that post liberalization measures had their contribution in enhancing the export-performance of MNEs operating in India. However, the study argued that such evidence of MNEs better performance didn’t suggest that these MNEs were attracting efficiency-seeking outward-oriented FDI. Along with, performance of foreign firms was found to be different in low-tech sector while same was not found for high tech
sector. The study concluded that in post-liberalization era, Indian economy seemed to be fully integrated with the global economy but the existing industrial and technological capabilities needed a reorientation in order to attract efficiency seeking FDI.

Mahambare (2001) conducted a study on FDI performance of foreign firms in the post reforms era. The study was based on a sample of 2,417 firms in the manufacturing sectors for a nine year period of both pre-reforms (1988-89 to 1991-92) and post-reforms (1992-93 to 1997-98) period. The study observed that foreign firms increased their exports in the post-reform period in sectors such as chemicals, drugs and non-electrical machinery sectors. The evidence also suggested that the reforms were having a favourable impact on the productivity of foreign firms. The study also found an improvement in the efficiency of foreign firms in the post-reforms period. Further, by using Data Development technique, the study reported that 61 per cent of foreign firms showed an improvement in efficiency after the reforms compared to 35 per cent of domestic firms. Furthermore, changes in the pattern of financing such as a decline in the debt-equity ratio in the post-reforms period also appeared to exert a positive impact on efficiency of foreign owned firms in chemicals, inorganic chemicals, drugs, computer hardware, and software industries.

Tang and Rao (2001) examined R&D propensity of foreign and domestic manufacturing firms in Canada. A balanced panel data set of 58 firms (28 domestic Canadian controlled and 30 foreign controlled) was selected for a ten year period from 1985-1994. Application of Pooled Regression Analysis revealed that foreign-controlled firms were spending significantly lesser on R&D than domestic Canadian firms. Despite of this, the R&D propensity of both foreign-controlled and Canadian-controlled firms during the study period was showing an increasing trend. However, this study did not support the notion that this indicated a narrowing R&D propensity gap between domestic Canadian and foreign-controlled firms over the period of time. The study further found that in spite of lower spending on R&D, foreign controlled firms were still more productive than Canadian-controlled firms due to the import of superior technological and managerial capabilities from their parent companies.
Therefore, the study pointed out that the innovative performance of foreign-controlled firms should be judged on a broad set of performance indicators such as output and productivity growth, export orientation and technology adoption.

**Bottasso and Sembenelli (2002)** carried out a study to provide empirical evidence on the relationship between corporate ownership and firms’ productive efficiency in Italy. A final panel data sample consisting of 1,272 firms (yielding 7,186 domestic and 2,630 multinational observations) covering the period of 1978 to 1993 was selected for the purposes of the study. Application of Stochastic Production Frontier technique suggested that subsidiaries of multinational firms were found to be the most efficient group in most industries than private national firms.

**Campbell (2002)** analyzed 162 enterprises spread over 20 different sectors of manufacturing industry of Hungary to extract the influence of their ownership structure and other factors on performance. The determinants of performance were estimated by regressing profitability ratios on ownership structure variables while controlling for firm and industry characteristics. The results of cross sectional regressions for the years 1998 and 1999 revealed that foreign ownership may result in improvement of performance yet the relationship was not found to be statistically significant. However, factors such as firm size and capital intensity were found to exert significant influence on firm performance as smaller firms in the sample were outperforming the large ones. Similarly, firms having greater capital intensity were also outperforming firms with relatively lesser capital intensity. Hence, the results suggested that high capital intensity may impose entry barriers that in turn result into enhancement of company’s competitive position in the market. Furthermore, export intensity was also found to be positively related to performance supporting the notion that phenomenon of competing in global markets may have a positive impact on performance.

**Kotabe et al. (2002)** conducted a study to examine the role of firm specific capabilities (R&D and marketing) on the multinationality performance relationship. Time Series Cross Sectional (TSCS) data for 49 United States firms from 12 different
industries was taken for a seven year period of 1986-1993. Financial performance (return on assets) as well as operating performance (ratio of sales to operating costs) was measured for the purpose of the study. Multinationality was measured as a ratio of foreign income to total income. Application of statistical technique of Ordinary Least Square Regression revealed that firm size was having a significant influence on financial but not on operating performance. The analysis further revealed that impact of multinationality on financial performance (ROA) was not unequivocal but dependent on certain firm specific factors such as R&D intensity and advertisement intensity. The study also found that R&D also affects operational performance of firms’ even earlier than their financial performance.

**Moudatsou (2002)** carried out a comparative performance analysis of domestic and foreign multinational firms in Greek manufacturing sector by evaluating their market shares, profitability and growth. Data for 120 firms pooled together for the period of 1988 to 1994 was taken for the analysis. The analysis revealed that as MNCs possessed certain firm specific assets that enabled them to fetch an attractive market share in the sectors they dominates. However, no difference was found in the profitability of domestic Greek and foreign firms thereby refuting the traditional theory of MNC. The study exerted that this phenomenon might be due to use of other methods such as transfer pricing by MNCs to transfer profits abroad. Secondly, multinationality was also not found to be affecting firms’ growth. As far as penetration of Greek manufacturing sector was concerned, MNCs were found to be dominant in key sectors such as chemicals and petroleum etc.

**Anastassopoulos (2003)** compared the ownership advantages of Multinational Enterprises’ (MNEs) subsidiaries and Domestic Enterprises (DMEs) at firm level in Greece in line with the theories of FDI. The analysis took into account heterogeneity within an industry as well as size as a major determinant of economies of scale. A panel data set of 75 Greek processed food firms i.e. a sector accounting for highest inward and outward degree of internationalization including 25 multinationals firms and 50 Greek domestic firms was taken for a four year period of 1988 to 1992. The analysis based on Probabilistic Regression Model revealed that MNE subsidiaries
possessed relative ownership advantages over domestic manufacturing enterprises in
the Greek food industry indicated by their higher market share, multi-plant
operations, advertisement and marketing, R&D and royalties intensity and export
performance rather than domestic Greek firms. Evidences also suggest that MNE
subsidiaries operating in Greece, by utilizing the distinctive locational assets of the
Greek food sector performed more creative type of operations to facilitate outward
FDI opportunities. However, Domestic enterprises were also found to use their well-
established position (knowledge of domestic and regional market conditions and size
economies) in order to compete with MNE subsidiaries in an effective manner.

**Griffith and Simpson (2003)** conducted a study to identify the characteristics of
foreign multinationals and domestic manufacturing establishments in Britain.
Differences in nationality of foreign firms were given a special consideration in this
study. The sample consisted of over 12,000 manufacturing establishments out of
which nearly 10 per cent were foreign owned for the period 1980-1996. Results
derived through Multiple Regression technique revealed that foreign-owned
establishments accounted for a larger percentage of total value-added and investment
in Britain. Furthermore, labor productivity of foreign enterprises also proved to be
higher than domestic ones and was increasing with age and investment per employee
for foreign enterprises. Such difference in the labor productivity between domestic
and foreign firms was attributed to the factors such as higher proportion of skilled
workers and higher wages for both skilled and operative workers.

**Kumar (2003)** conducted a study to examine the trends in share of foreign enterprises
in Indian manufacturing during nineties. The sample of the study ranged from nearly
1,400 to 3,000 firms (out of which ratio of foreign firms varied from 5 to 9 per cent)
covering an 11 year period from 1990-2000. The study revealed that the average size
of foreign firms was larger than domestic firms. Further, the share of foreign
enterprises was following an increasing trend both in terms of value-added as well as
sales, particularly in the late nineties. Therefore, the study was of the opinion that
policy liberalization measures resulted in a rise in the place of foreign enterprises in
the Indian industry. As far as R&D intensity was concerned, foreign firms appeared to
be spending higher on R&D activity in India than domestic firms although gap between their R&D intensities tended to narrowing down after ten years of liberalization. Foreign firms R&D also seemed to be geared for customization of their technology for domestic markets. However, as far as profitability was concerned, foreign affiliates enjoyed a consistently high as well as stable profit margins as compared to domestic firms due to their economies of scale and greater efficiency.

Ray and Rahman (2003) conducted a study in India to examine whether the behaviour of TNC-affiliates was different than their domestic counterparts and if so how they adapted to, and formed linkages. A dataset of 338 firms (104 TNCs and 234 domestic) comprising of sectors such as chemicals, electronics and transport equipment was taken for the year 1997-98. Statistical techniques of Wilcoxon’s Matched Pairs Signed Ranks Test and the Discriminant Functions under the multivariate framework were applied to attain the results. The results revealed that TNC-affiliates and domestic enterprises behaved in a different manner. Though this difference was very robust for ‘mature’ industries like chemicals, ‘high technology’ global industries like transport equipment and electronics, yet it was not so comprehensive and varied. Further, such behavioral differences between two groups of firms were strongly influenced by different structural characteristics of different industries. However, TNC-affiliates appeared to exploit India’s locational advantages by performing the labor intensive final assembly at a lower labor cost, but not getting too deeply involved in full-fledged operations. The study therefore suggested the policy mechanism to take care of these characteristics of foreign firms.

Yudaeva et al. (2003) compared total factor productivity of foreign and domestic owned firms in Russia. Nearly 1,200 to 1,800 foreign firms and 19,000 to 25,000 domestic Russian firms were taken for a five year period of 1992-1997. OLS Regression Technique was utilized to attain the results. The results suggest that the foreign firms were more productive than the foreign firms. The study found that foreign-owned firms were having advantages over domestic firms in terms of access to technologies and better management. The study also noted that foreign firms tended to invest in underdeveloped industries in Russian planned economy wherein
the demand for products was quite high and failed to be met by non-competitive domestic companies. However, degree of foreign ownership was not found to have any significant influence on productivity. The results also suggest that foreign firms located in more reform-oriented regions tended to be more productive than others.

Kimura and Kiyota (2004) conducted a study to examine any differences in dynamic and static corporate performance between foreign and domestically owned firms in Japan. The study utilized a longitudinal panel data for more than 22,000 firms for a four year period from 1994-98 to identify the determinants and impact of foreign ownership. The study found that foreign firms were having higher R&D expenditure, per capita value added productivity, number of domestic regular workers, domestic affiliates and establishments, capital intensity, wages, better return on assets and total factor productivity than domestic firms. On employing the dynamic analytical framework developed by Roberts and Tybout (1997) and Bernard and Jensen (1999), it was found that though return on assets and equity were not significant but per capita value added and TFP were found to be significant. Potential foreign-firms were larger, younger and more R&D-intensive than other firms; foreign investors select firms having potentially better performance in future thus ignoring short-term profits. Thus, the study found that foreign-owned firms were having superior characteristics such as profitability and productivity both in static and dynamic sense. However, employment in foreign-owned firms was decreasing faster than domestically-owned firms as these firms were restructuring their redundant workers more effectively as compared to domestic Japanese firms. The results also revealed that younger firms having more capital and R&D intensity were able to improve their corporate performance more than older, less labor-intensive and less R&D-intensive firms. The study found that foreign firms brought useful firm-specific assets such as technology, managerial ability, and effective corporate governance into Japan.

Lombaerde and Guevara (2004) in their study compared the productivity indicators of foreign and domestic companies covering a five year period of 1994-1999 in Columbian manufacturing sector. Comparison of over 1,500 firms revealed that foreign affiliates were more productive than their domestic counterparts. Furthermore,
these firms were found to be more capital intensive and having higher levels of labor productivity. Moreover, foreign firms have high per unit remuneration despite of lower labor cost than their domestic counterparts was also a visible attribute of these associates.

**Ngoc and Ramstetter (2004)** carried out a study to investigate the role of foreign MNCs in Vietnamese economy during the reform period of 1994-2002 and also to compare their performance with that of local state owned (SOE) and non state owned Vietnamese firms. Simple statistical techniques such as percentages and t-test were applied to attain the objectives of the study. The study found that the MNC possessed relatively large amounts of firm-specific assets related to production technology, marketing networks and management know-how, thereby turning these to be larger in size and having higher labor productivity, capital intensity, wage levels, investment propensities and trade propensities than non-MNC firms. At the same time, foreign MNCs tended to have relatively lower capital productivity and wage shares of value added. Though the results regarding profitability were mixed, yet the performance difference between MNCs and State owned enterprises were smaller as compared to the differences between the MNCs and non state owned enterprises. The study asserted that its results were consistent with the other researches for other developing Asian economies.

**Rasiah and Gachino (2004)** attempted to examine differences in labor productivity and export and technological intensities between foreign and domestic firms in Kenyan manufacturing. 37 foreign and 68 domestically owned firms during the year 2001 formed the database of the study. Statistical technique of ‘two tailed t-test’ was used to check the statistical significance of any such differences. In addition, the statistical technique of OLS as well as Tobit regressions was also applied. The outcomes of the study confirmed the existence of significant differences in technology and labor productivity of domestic and foreign firms. Whereas, for textiles and garments industry, foreign firms were enjoying a higher exports and technological productivity, on the other hand in case of food and beverage sector, foreign firms were having a higher labor and technology performance.
Siddharthan and Nollen (2004) conducted a study to determine the export behavior of affiliates of MNEs in high technology industries in developing countries such as India. The study focused on information technology sector and compared MNE affiliates, licensees of foreign technologies and domestic firms without any foreign collaborations. Application of Multivariate techniques such as Tobit Regression and Fixed Effect Panel Data Regression models revealed that technology played an important yet variable role in the explanation of export intensity. Furthermore, exporting behavior of MNE affiliates, foreign licensees, and domestic companies tended to differ as among MNE affiliates, firms having larger foreign equity stakes had greater export intensities. As far as domestic firms were concerned, firms making larger payments for technology imports were exhibiting greater export intensities as against MNE affiliates. Standard export determinants such as firm size and capital intensity were affecting export performance of licensees and domestic firms but not of MNE affiliates in India. Furthermore, analysis of characteristics of particular firms revealed that in addition to firm’s resources, objectives played an significant role in affecting its export performance.

Arnold and Hussinger (2005) investigated productivity performance pattern of German manufacturing firms by sub-dividing these into three categories i.e. domestic non-exporters, domestic exporters and multinational with an outward investment in a foreign country. The sample of the study consisted of an unbalanced panel dataset of 2,148 firms from 43 manufacturing sectors during a seven year period of 1996-2002 selected through stratified random sampling that included small, medium as well as large enterprises. The study found that firms with foreign investment tended to be the largest both in terms of employment as well as sales. Further application of Komlogorov-Smirnoff test confirmed foreign firms to be most productive among three groups of firms for each of the year under study.

Barbosa and Louri (2005) conducted a study to find the relevant factors explaining the performance implications of foreign ownership for a large cross section of firms in Portuguese and Greek industries. The final sample of the study included 523 manufacturing firms operating in Portugal in the year 1992 and 2,651 Greek firms in
the year 1997. Analysis carried out by applying Quantile Regression technique suggested that after controlling for firm and industry-specific characteristics, no significant differences in profitability of MNCs were observed as compared to domestic firms in Portugal. Further MNCs operating in Greece were found to be significantly more profitable than domestic Greek-owned firms, only for a specific measure of profitability i.e. gross return on assets and only for the specific category of firms lying in the upper quantiles. Further, firms operating in Greece were found to be sensitive to industry characteristics such as concentration, R&D intensity and growth, which were not true for Portuguese firms. Further, effect of size was positively significant in Greece but non-significant in Portugal, while capital intensity appeared to worsen and improve performance respectively. The study suggested inclusion of some more countries in the analysis to identify the existence of any country specific effects.

Cetin and Ackrill (2006) carried out a study to compare the export performance of 60 foreign and almost equal domestic firms in Turkey for the years 1994 and 1995. In addition, the study also attempted to examine the role of foreign direct investment by multinational enterprises in manufacturing exports. The study found a significant export performance coefficient (EPC) for sectors such as transport, electricals, electronics, rubber and plastic industries. Further, in order to compare the performance of the foreign and domestic groups, statistical technique of “two tailed t-test” was employed on the data. Its analysis revealed that except chemicals, foreign firms were exhibiting a better export performance than domestic firms in all other sectors at industry level. However, for both foreign and domestic firms, export orientation didn’t turned out to be a primary motive.

Joseph (2006) made an attempt to compare the technological performance of domestic and Indian owned firms in Indian manufacturing industry after liberalization for the period 1992-93 to 2003-04. The sample of the study consisted of 1,800 firms from various sectors of manufacturing industry. Four technological indicators were utilized to attain the objectives i.e. R&D intensity, export intensity, capital goods import intensity and technology import intensity. The study found substantial growth
in R&D as well as export intensity of domestic owned manufacturing firms in India in the post liberalization era. As far as foreign owned firms were concerned, though their export intensity was showing an increasing trend yet R&D intensity was more or less stagnant. However, for technology import intensity, domestic firms registered a heavy fall whereas this fall was small but highly fluctuating for foreign firms. Furthermore, a falling intensity for capital goods imports was observed for both types of firms.

**Manikandan (2006)** carried out a study to analyze the overall performance of foreign multinational and domestic companies in India in the post liberalization period. 246 foreign and 4,366 domestic firms operating in sectors such as chemicals, engineering, tea, textiles and trading for a period 1991 to 2004 formed the sample of the study. Three dimensions of performance i.e. finance, trade and technology were considered at aggregated as well as disaggregated level. Financial performance was measured by the technique of financial ratios. Further, for measuring trade performance, indicators relating to exports and imports were taken and technological performance was measured by analyzing research intensity and embodied and disembodied technology import intensity. Except chemical industry, the study found no significant differences between foreign and domestic companies at both aggregated as well as disaggregated levels. As far as trade performance was concerned, domestic companies showed a fairly better performance than their foreign counterparts at aggregate level during the period 1998-2004. However, at disaggregated level, no significant difference was found for sectors such as chemicals, engineering, trading and textiles. For technological performance, as against the available evidences, no statistical difference was found for foreign and domestic companies at aggregated as well as disaggregated (chemicals and engineering industries) level. The study recommended a policy providing incentives for multinationals to boost to their R&D activities and reduction of tariffs to encourage capital goods imports.

**Pradhan et al. (2006)** conducted a study to analyze the factors determining export orientation of foreign manufacturing affiliates in India. The study also attempted to examine the factors motivating the existing market-seeking FDI in export activities. The sample of the study consisted of a panel data set for 14 Indian industries for a 14
year period ranging from 1992 to 2005 resulting into a final sample of a total of 4,975 firms including 522 foreign owned firms. Results derived through Fixed effects and GLS Regression models revealed that though exports of foreign manufacturing firms had increased considerably overtime but at the same time, improved performance of domestic firms had reduced the influence of ownership on export activities. The study also observed that export intensities of foreign affiliates were significantly lower in R&D and advertising intensive industries in India and were also more sensitive to the huge size of the Indian domestic market. Moreover, it was found that the export orientation of foreign affiliates had responded positively to liberalized trade and investment regime of post liberalization era that had created infrastructure in the form of export processing and special economic zones.

Sasidharan (2006) conducted a study to compare the performance of some foreign and domestic firms in India. The sample of the study consisted of an unbalanced panel data of nearly 2,700 firms from manufacturing sector of India for the period 1994 to 2002. The analysis revealed that foreign firms were more R&D intensive than the domestic firms. However, domestic firms were able to match their export performance with foreign firms over the study period as a result of liberalization adopted by the policy makers. Further, the study also noted a decrease in technology imports due to increased number of joint ventures and strategic alliances in the post-liberalization era. Lastly, OLS Regression applied in a log-linear production function also substantiated that foreign firms turned out to be more productive than the domestic firms in India.

Aydin et al. (2007) conducted a study to investigate whether foreign owned firms performed better than domestically owned Turkish firms. The database of the study consisted of 42 foreign and 259 domestic firms quoted on Istanbul Stock Exchange (ISE) for the period 2003-2004. Statistical technique of “t-test” was applied on the data to test for the existence of any significant differences for increased foreign equity participation compared to domestic firms. It was observed that foreign firms were differing from domestic firms as far as variable Return on Assets (ROA) was
concerned but not for other variables i.e. Return on Equity (ROE) and Operating Profit Margin (OPM). The results of this study were in harmony with the results of some prior researches such as Goethals and Ooghe, 1997; Douma et al., 2003; Khawar, 2003; Gunduz, 2003; Akimova et al., 2004 and Isik, 2004.

**Crino and Onida (2007)** studied the effect of foreign participation on economic performance in Lombardy, a North Italian Region accounting for more than 40 per cent of the FDI in Italy. A large database of more than 13,000 firms in both manufacturing and service sector for the period 2000-2005 whereby a majority (67 per cent) of firms operated in the manufacturing. Unconditional comparisons (without size and industry allocation) revealed that MNEs were utilizing more capital intensive techniques, had higher labor productivity, higher wages, a more solid financial structure but lower return on investments. Further, a conditional comparison of some national appropriate counterfactual firms by propensity score estimation technique revealed an absence of any differences between the two groups of firms in service sector. Hence, the study pointed out that earlier observed differences in service sector could be due to the factors such as different industrial distribution between MNE and domestic firms, the large size of MNEs and their tendency to cherry pick already high performing national enterprises. However, the real premium of foreign ownership was found in manufacturing sector where MNEs continued to demonstrate a higher knowledge intensity, productivity and wages along with a more equilibrated financial structure.

**Yasar and Paul (2007)** conducted a study to explore the relationship between foreign ownership and firm performance in five Eastern European and Central Asian countries. The study utilized cross-section data of 437 firms for the year 2002 for garment and food processing firms in Poland, Moldova, Tajikistan, Uzbekistan, and the Kyrgyz Republic. These industries were having a lower complexity of technology but increasing capital intensity. Proportional differences were measured between performance characteristics of firms through regression analysis. The results revealed that foreign firms were performing better on a number of indicators than their
domestic counterparts because after controlling for factors such as size, industry and country, these firms exhibited a higher productivity, capital intensity, wages, employment, export share of sales, import share of materials and innovation. The study recommended that domestic firms’ connection with foreign firms should be encouraged through policy measures to enhance firm and industry productivity and competitiveness in transition economies.

Dachs et al. (2008) attempted to investigate existence of any differences between innovative performance of foreign and domestically owned enterprises in five European countries by comparing their innovation inputs, outputs and embeddedness of foreign-owned enterprises in the innovations systems of their host countries. The data for the study consisted of more than 5,700 firms taken from five countries i.e. Austria, Denmark, Finland, Norway and Sweden for the period of 1998-2000. Application of Two Equation Sample Selection Econometric Model showed that in three out of five countries, foreign ownership, on average, did not exert a significant influence on the decision of enterprises to innovate. However, for countries such as Austria and Norway, foreign ownership was found to significantly reduce the propensity for innovative activity after correcting for size, sector and some other independent variables. Further, foreign ownership was found to a higher innovative output as well as labor productivity than domestic enterprises due to their superior financial, management and technological capabilities and product market experience available to these MNEs. Lastly, foreign-owned enterprises tended to be embedded in the innovation system of their host countries like their domestically-owned counterparts.

Urem et al. (2008) studied the relationship between foreign ownership and innovations of high novelty in advanced developing countries. The empirical analysis was based on a final sample of 173 firms from Jiangsu province of China in the year 2003. Application of Chi-square test revealed that R&D didn’t act as a moderating variable for enunciating the relationship between foreign ownership and propensity of innovations of high novelty. However, sectoral influence was found to have its impact on this relation. This was so because propensity of innovations of high novelty was
found to be marginally lower for foreign firms than domestic ones. On the other hand, for low innovative sector, this relationship was found to be inverse. Further, foreign firms were found to be more intensive than domestic firms in innovations of high novelty products thereby generating a higher proportion of sales from these products.

Wignaraja (2008) examined the links between firm-level export performance, foreign ownership and the acquisition of technological capabilities in an outward-oriented developing country like Sri Lanka. A cross-section dataset for 205 clothing firms (47 foreign-owned and 158 domestic enterprises) for the year 2003-2004 was collected. Statistical technique of t-test revealed that foreign firms were exhibiting better export performance, had larger employee base, better skilled CEOs and invested in modern equipment as compared to domestic Sri Lankan firms. Further, application of Tobit model of regression revealed that foreign firms were more successful exporters as compared to their domestic counterparts due to their access to marketing connections and know-how acquired from their parent companies, accumulated learning experience of export production and economies of scale resulting from their size. Technological capabilities also had a significant contribution in export performance. The importance of liberal FDI regime in attracting export oriented FDI in the developing countries was also emphasized in the study.

Chacar et al. (2010) conducted a study to test the hypothesis that multinational firm affiliation has an impact on firm performance that leads these affiliates to outperform domestic firms. They tested this proposition using data from a survey conducted by World Bank and the European Bank for Reconstruction and Development in 2002 and 2005 for a sample of 20,000 firms in 27 transition and 7 non-transition countries. By using ordinary least squares regressions and panel data regression, the results of the study revealed that local affiliates of MNCs outperform purely domestic firms.

Erdogan (2010) examined the major aspects of conduct and performance that lead to make a distinction between foreign and domestic owned firms operating in Turkey. Repeated measures of logistic regression were conducted on 77 foreign owned and 215 domestic owned firms operating in Turkey for a period of 2004-2008. The results pointed out that domestically owned firms had higher capital productivity than
foreign owned firms. However, two groups of firms did not differ on other discriminating variables such as pre-tax profit margin, return on equity as well as labor productivity. No significant differences were found on other parameters such as size, capital intensity, export intensity, patent and trademark intensity.

**Gelubcke (2011)** conducted a study in Germany Service sector to compare the relative performance of foreign controlled enterprises by comparing conditioned as well as unconditioned means as well as distributions along quantiles. By including 41,292 domestic firms and 1740 foreign firms in the final sample for the year 2008, the study found that persistently superior performance by foreign controlled firms. However, it was also concluded that though foreign controlled firms were making a higher wage payment, yet, due to high degree of internalization by domestic German firms, labor productivity of foreign firms became insignificant.

**Mihai (2012)** conducted a study to investigate the relationship between foreign ownership and firm performance of 63 companies listed in Bucharest Stock Exchange in Romania. Variables return on assets and return on equity were used for measuring the financial and economic performance of the firm. The linear regression results did not find any existence of positive and direct link between firm performance and presence of foreign capital. However, Mihai cautioned to interpret the findings in the light of the current economic situation of recession operating in the year during which manufacturing was observed to be one of the most affected industries.

**Gelubcke (2013)** carried out a micro level study in German manufacturing sector to examine the performance of foreign controlled firms. Taking cross sectional data, unconditional means were compared to draw the conclusions. Variables such as productivity and R&D intensity variables, as well as the return on sales, per capita wages, and size were estimated using the probit and GLM estimators and OLS technique. The analysis revealed that there existed a foreign ownership performance premium with regard to productivity, research and development, export intensities, and average wages. However, as far as variable profitability was concerned, it did not seem to be different from domestic German-owned enterprises.
CONCLUSION OF REVIEW

The above literature deals with a multiple aspects relating to performance of multinational corporations. These aspects are summarized and clubbed as presented in the following discussion:

❖ PROFITABILITY

Severn and Laurence (1974) were of the view that U.S. foreign investors were profitable because they tended to operate in high R & D intensive industries. Rugman (1976) proved that foreign operations were inversely related to profits. Fairchild (1977) concluded that Mexican domestic firms were successfully competing with foreign firms on profitability front. Constas and Vichas (1981), and Bottasso and Sembenelli (2002) found that foreign firms were superior to domestic firms in resource management. Lecraw (1983) found that profitability of the MNCs was increased with increase in firms market share, advertising and R & D intensity and tariffs and decreased with the decrease in factors such as import penetration and growth in sales. Shapiro (1983) found that foreign firms were more profitable than domestic firms due to monopolisation and concentration of assets. The same study found that for other foreign firms not belonging to U.S., ownership was having no influence on profitability. Michel and Shaked (1986) found that MNCs were having a lower systematic risk and equity variability compared to domestic companies. Grant (1987), Omer et al. (1998) found that multinationality was having a positive influence on profitability. Fong and Salehizadeh (1989) found that over the period of time, the performance of MNCs and domestic companies was becoming more comparable. Kim and Lyn (1990), Kumar and Siddharthan (1994), Moudatsou (2002), Barbosa and Louri (2005) (for Portugal), and Manikandan (2006) didn’t find any profitability/performance difference between foreign and domestic firms. Kumar (1990) found that better performance of MNC firms was due to protection granted to these through entry barriers by the policy makers as well as their technological and human barriers. Kumar (1994) and Majumdar (1997), Kimura and Kiyota (2004),
Barbosa and Louri (2005) (for Greece) found MNCs to be more profitable than domestic firms. Aydin et al. (2007), Goethals and Ooghe (1997); Douma et al. (2003); Khawar (2003); Gunduz (2003); Akimova et.al. (2004) and Isik (2004) found mixed unambiguous results for profitability difference for foreign and domestic enterprises. Mahambare (2001) also found an improvement in the efficiency of foreign firms in the post-reforms period.

**EXPORT PERFORMANCE**

Morgenstern and Muller (1976), Fairchild (1977), Kumar (1994), Kumar and Siddharthan (1994), Athukorala et al. (1995), Pant (1995) didn’t find any differences in the export performance of foreign and domestic firms. Jenkins (1979) found that foreign firms were showing an export inclination in engineering goods industries while domestic in traditional goods industries. Further degree of ownership was not causing export behaviour to differ significantly. Lall and Mohammad (1983), Willmore (1986), Aggarwal (2001), Rasiah and Gachino (2004), Cetin and Ackrill (2006), Yasar and Paul (2007) found the export performance of Multinational Corporations to be better than domestic companies. Willmore (1992), Campbell (2002), Siddharthan and Nollen (2004), Cetin and Ackrill (2006), Joseph (2006), and Wignaraja (2008) found foreign ownership to have a positive impact on export performance. Sulbrahmanian and Joseph (1994) found that at aggregate level, foreign firms were showing a poor export performance than domestic firms, however, at disaggregated level, in technology intensive industries, foreign firms were performing better than domestic firms. Furthermore, domestic firms were exhibiting a better performance in labor intensive industries. Pradhan et al. (2006) found lower export intensity in high R&D and advertising intensity industries. However, export propensity increased after liberalization. Mahabare (2001) also noted that foreign firms had increased their exports in sectors such as chemicals, drugs and non-electrical machinery. Sasidharan (2006) found that domestic firms were able to match their performance with foreign forms due to liberalization.
- **R & D AND INNOVATION**

As far as R&D intensity of foreign firms is concerned, studies fail to arrive at a unanimous conclusion. Whereas, scholars such as Kim and Lyn, (1990), Tang and Rao (2001), Kumar (2003), Kimura and Kiyota (2004), Sasidharan (2006), Yasar and Paul (2007), Dachs *et al.* (2008), and Urem *et al.* (2008) found R & D intensity of foreign firms to be higher than domestic firms, at the same time studies conducted by Nakamura (1991), Kumar (1994), Kotabe *et al.* (2002) found that foreign firms were spending less on R&D as compared to domestic firms. Furthermore, Joseph (2006) found R&D intensity of foreign firms to be stagnant and Dachs *et al.* (2008) found that foreign ownership didn’t have any effect on the decision of the firm to innovate.

- **CAPITAL UTILISATION**

Agarwal (1976), Yudaeva *et al.* (2003) Arnold and Hussinger (2005), Sasidharan (2006), Yasar and Paul (2007) concluded that foreign firms were having more productive capital per employee. Lim (1976), Asheghian (1982), Pfaffermayr and Bellak (2000), and Campbell (2002), were also of the opinion that foreign establishments were having more intensive capital utilisation than domestic companies. Willmore (1986), Kimura and Kiyota (2004), Lombaerde and Guevara (2004), Ngoc and Ramstetter (2004), Crino and Onida (2007), and Yasar and Paul (2007) found that foreign firms were employing more capital intensive techniques than domestic firms.) Mahabare (2001) noted that reforms had a positive impact on increase in the productivity of the foreign firms.

- **VALUE ADDED**

Agarwal (1976), Constas and Vichas (1981), Willmore (1986), Globerman *et al.* (1994), Liu (2000), and Kimura and Kiyota (2004) found that foreign firms were having a higher value added than domestic firms. Ramachandran and Shah (1998) found that foreign ownership was having an effect on value added only after a certain level of ownership.
OPERATING EXPENSES

Constas and Vichas (1981) found that foreign firms were having comparatively lower operating expenses yet in the later years, the domestic firms were able to imitate the technological and managerial efficiencies of their rival firms and operating expenses became lower. Willmore (1986, 1992) found foreign firms to be spending higher on advertisement. Kim and Lyn (1990) found advertisement intensity of the foreign firms to be lower than domestic firms. Kumar (1990, 1994) didn’t find advertisement intensity of the foreign firms to be significant.

LABOR PRODUCTIVITY


The foregoing review of existing literature reveals that as far as dynamics related to performance of MNCs in India are concerned, sufficient research has not been carried out since the implementation of large scale liberalisation. As economic reforms have made a way for mushrooming entry of MNCs to India, there is a need for a comprehensive analysis of different aspects of MNCs in India. The review of literature presented in the foregoing analysis does not provide sufficient evidence for existence of a thorough research on multi-aspects of MNCs operating in India after liberalisation. Hence, the present study is an endeavour to fill up this gap by empirically testing the dynamics of multinational corporations operating in India.