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# PORTES

**Revista mexicana de estudios sobre la Cuenca del Pacífico**

Tercera Época • Volumen 2 • Número 3 • Enero / Junio 2008 • Colima, México

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# *Role of Multinational Corporations in Automobile Industries: A Comparative Study Between India and Mexico*

Ganesh Babu Kumaran*

**Resumen.** El papel de Corporaciones Multinacionales (CMN) en los países en vías de desarrollo no es nuevo en la arena de comercio internacional y la macroeconomía global. En el ámbito del desarrollo económico más significativo en recientes décadas, es el proceso de GLP (Globalización, Liberalización y Privatización) económico que se ha reflejado en un rápido crecimiento del comercio internacional y la ola en la Inversión Extranjera Directa (IED). Este proceso de gran magnitud se maneja por las nuevas inversiones de las corporaciones multinacionales. Una creciente porción del mercado es ocupada por las CMN en India y México y en la década pasada era evidente su incursión en varios sectores y en particular al sector automovilístico. Las Corporaciones Multinacionales buscan aprovecharse del inmenso potencial de mercado, pero también del surgimiento de áreas desconocidas. Simultáneamente, India y México se están embarcando cada vez más en estrategias de desarrollo económico orientadas a atraer la Inversión Extranjera Directa de las CMN como un medio para acceder a la tecnología, el capital, organización, "know how" en el ámbito de comercialización, entre otros factores. En este documento se hace un análisis comparativo en el desempeño del sector automovilístico en India y México, principalmente en vehículos de pasajero y carga ligera. Se examina el impacto y el papel de CMN en estas economías desde 1990, también se analizan aspectos cuantitativos y cualitativos con datos empíricos que permitirán lustrar y reforzar algunos aspectos de la industria automovilística contemporánea.

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**Palabras clave:** Corporaciones Multinacionales (CMN), Inversión Extranjera Directa (IED), sector automotriz, India, México.

**Abstract:** Role of Multinational Corporations ( MNC's ) in developing countries is not new in the arena of International business and global macroeconomics. One of the most significant economic developments of recent decades is the economic **LPG** process (**L**iberalisation, **P**rivatisation and **G**lobalisation) is reflected in the rapid growth in international trade and the surge in Foreign Direct Investment (FDI). This process is to a large extent driven by new investments from multinational corporations. A rapidly growing share of MNC's in India and Mexico in last decade was evident in various sector and in particular to automobile sector. Multinational Corporations are seeking to exploit the vast but also precarious market potentials in these emerging economies. Simultaneously, India and Mexico are increasingly embarking on economic development strategies aimed at attracting MNC's Foreign Direct Investment as a means to access technology, capital, organizational and marketing know how, etc. This study does comparative analyses on the performance of automobile sector in India and Mexico, mainly in passenger car and Utility vehicles sector. It examines the impact and the role of MNC's in these economies since 1990's, with derived empirical quantitative and qualitative data analysis that would illustrate and reinforce some of the contemporary status.

**Key Words:** Multinational corporations (MNC), Foreign Direct Investment (FDI), Automobile Sector, India, Mexico.

## *1. Introduction*

Role of Multinational Corporations and the various impact to the host country economies are in the debate for various academics and policy makers in the era of globalization. The concept of a Role framework for the Multinational Corporation in the developing economies, its impact in the economic and social life in contemporary capitalism has emerged as a powerful tool in economic development practice in late 1990's. According to Kalus E Meyer, (2004),

> Multinational Enterprises play a pivotal role in the development of many emerging economies and they become the focus of scholarly research by economist and policy analysts. According to him studies taking the individual forms as

starting point would enhance the understanding of the interaction between MNE and Local environment. It also help to give new insight in to the dynamics of MNE in emerging economies.

Multinational Corporations play an important role in the development of host economies. There in a need to view the MNC and their role by the researcher on the contemporary impact, unlike in the past, many developing countries viewed foreign direct investment (FDI) with great reservation and suspicion.[1] The presence of multinational corporations (hereafter MNC) was perceived to constrain their hard won national sovereignty and self reliance. The foreign-based ownership of assets and of decision-making and their operations in the host country had raised questions on the role of these MNC and the degree of development impact in the host economy development. The size and magnitude of FDI by MNC has been always an area of interest to understand its impact in the host countries, raising interest to know about MNC capacity to influence economic, social and political events. These interest are, justifiably in most cases, driven by the present liberalization and globalization scenario that prevails in many developing countries, in particular to India and Mexico.

Undoubted in our mind that a significant economic growth and FDI has taken place in India and Mexico since 1990's. There has been an impressive growth on the automobile sector, which has a strong forward and backward linkage in the economy. It shall be an interest for us to study and to understand the role of MNC in the automobile industries in 1990's and the effect in host economies by the means of Foreign Direct Investment. The sectoral empirical data by means of qualitative and quantitative approach are adopted to understand the role of MNC in India and Mexico in a cross country comparative method. This article aims to study the automobile sector and its impact in these host economies based on the empirical data and its analysis. In automobile world the 12 global majors with 2 million units plus per year production capacity account for 53.02 million of vehicle produced in 2005[2] against a total of 66.46 million, which is almost 80 percent of the total production of automobile vehicles.

## *2. Why automobile industries and its importance?*

The regulatory environment of FDI has been dramatically relaxed as a result of a host of factors: for instance, need of huge

capital investment, acceleration of technological change, emergence of globally integrated production and marketing networks and evidence of positive developmental effects from developing countries that opened their doors to many MNC. In addition, the need for more product in the market, to indulge market competition, to get state of art technology, to boost the existing industries in similar manufacturing and services, employment generation and to promote export of products made by these MNC to the global market share they have. These expected benefits had made the host economies to continuously reform their investment policies to attract foreign capital, as FDI appeared to be an attractive and stable alternative to lacking domestic capital inflows. In the process, incentives and subsidies were aggressively offered, particularly to MNC that supported developing countries industrial policies. This led to a rapid expansion of MNC by means of FDI flows around the world since 1990's in particular to India and Mexico. For instant in India the FDI was only $0.1billion in 1990 and increased to $4.6 billion in 2003, where as for the same period in Mexico it was $4 billion in 1994 and at $14 billion in 2002. [UNCTAD, WID, Vol. IX, 2004]

When many host countries began to relax regulations to attract FDI, and Multinational companies undertook various modes of entries like green field, joint venture ( hereafter JV ) and scores of mergers and acquisitions (hereafter M&A's) and privatization programs in general undertaken by the host country governments. According to a study on the impact in economy by MNC various mode of entry in Korea (Seong-bong Ledd and Mikyung Yun, 2006) appears as a wide various and also depend up the sector. So they suggest that more study is required to sector specific and also country specific to understand the MNC entry mode impact. Given these trends in growth in FDI, especially in developing countries it is not surprising that UNCTAD claim that the role of MNC is that of *"integrating, organizing and managing productive activities ... this role makes MNC engines of growth within an enabling and conducive structural conditions"*. (Endnote, WDR, 1992, p.248)

Capital flows from one nation to another is to earn a higher return where it is more productive and to diversify risks. The potential impact of international capital movements is thus an increase in world output and welfare. For the purposes of this paper, the discussion will focus on MNC FDI in particular to the automobile industries in India and Mexico. The following quote

from Shiva Ramu.S (1998, page 140) in his book Cross-Border Mergers and Acquisitions: automobile Sector

> In automobile sector, a major wave is evident in the automobile components sector. This is due to changes in automobile sector which is going for platforms to produce vehicles on a global scale.

There are circumstances in which foreign production tends to add to exports and circumstances in which it tends to reduce exports. The effect may depend on whether the foreign operations relation to home operations is "horizontal" or "vertical," a distinction stressed by Markusen and Maskus (2002). It may also depend on whether the foreign operations are in goods industries or in service industries, are in developed or developing countries, or are in industries with plant level or firm level economies of scale. This tells that there are lots of scope to study various sector and the impacts.

*3. Key Role of Multinational Corporations in the host economies*

By review of various articles and comments[3] by researchers and scholars in the field, it is evident that MNC play a key role in the host countries apart from increasing output and income, there are other potential benefits to host countries which encourage capital inflows by these MNC by various developing countries:

1. Foreign firms bring superior technology.

2. Foreign investment increases competition in the host economy.

3. Foreign investment typically results in increased domestic investment.

4. Foreign investment gives advantages in terms of export market access and can serve as catalysts for other domestic investment and exporters.

5. Foreign investment can aid developing countries by importing **"soft technologies"** such as organizational, managerial and marketing skills. These intangible benefits can play an important role in increasing efficiency and competitiveness in global and as well as domestic markets.

Needless to say that the automobile industries have all of the above potential benefits that have an important impact on the factors in determining the process of economic development

in developing countries. New research shows that many of the determinants of growth identified in (1) to (5) above are interrelated and synergistic. (Footnote WDR 1992) In other words an improvement in one leads to interactive benefits in another. For example, new capital investment, such as in new machines, new products, embodies new technology. This investment directly leads to gains in productivity, enabling firms to upgrade their technological capabilities and to raise both the quantity and quality of goods and services produced and exported. Increase in trade can itself lead to further gains through the benefits of economies of scale and specialization, can encourage further investment by both domestic and foreign firms. Thus a clear and a strong and interrelationship can exist between new capital formation, technology and trade, leading into a virtuous cycle of cumulative development.

Traditional approaches have also underestimated the potential for FDI to contribute to the development process through indirect effects. Since a considerable amount of hard and soft technologies[4] are being transferred through FDI, their benefits can also get diffused to local firms through backward and forward linkages such as subcontracting and domestic licensing. The deeper these linkages or alternatively, the greater the embeddedness of foreign firms in the local economy, the greater the indirect benefits. (Endnote for WDR 2001 which has focus on promoting linkages] However, foreign investment flows do not always increase welfare in the host country. We need to bear certain caveats in mind when making an assessment of the overall contribution of FDI to the development process.

The question of distribution also arises with respect to the sharing of gains between foreign capital and host countries factors. Traditionally, foreign investment was geared toward primary commodity exports. This led to capacity expansion, productivity growth, competitive market prices of goods and services and improve in the host country's terms of trade, possibly having led to welfare. In addition, there are generally spillovers to the rest of the host economy from primary commodity production. The resulting view was that the gains from capital inflows favour the host economy more. Many new foreign investments in developing countries are in process manufacturing because of lower labour costs and in particular to the automobile sector. The host countries often import semi-finished components and export finished goods or refined components for further processing elsewhere. This is the case

in the automobile sector where the MNC import SKD ( Semi knocked down ) components and after value addition sell in the domestic or export market as CKD ( Completely knocked Down ). This type of foreign investment generally provides employment and raises income in the form of wages, but adds value to the host country's capital stock. While wages may rise across the board in host countries. As foreign investors search for the location that will provide the highest returns on their investment, they are often drawn to countries with abundant resources, infrastructure and quality institutions in which Mexico and India has many of these resources. For details view the below macro economic information on these two developing countries.

In any dynamic economic activities there are drawbacks too which are not exceptional to the FDI by the MNC. Not all investments by MNC lead to technology transfer and positive spillovers. In their desire to protect the technology of the parent company, MNC generally limit the production of affiliates in host countries to low value-added activities, thereby reducing the scope for technical change and technological learning. MNC may also restrict vertical integration by relying completely on foreign suppliers for their inputs. In some cases, MNC, by their sheer size, can even eliminate competition by crowding out domestic producers. As integral parts of global value chains, MNC have a built-in advantage (e.g., economies of scale and scope) over their local competitors. However to the context of this paper, I limit the roles of MNC to factors that are considered.

## *4. Macro economic information: Mexico and India in 1999*

Table 1. **Macro economic information: Mexico and India in 1999**

| | **Mexico (1999)** | **India (1999)** | **Remarks** |
|---|---|---|---|
| Area | 1,958,000 sq. km. | 3,288,000 sq. km. | 1:1.6 times |
| Population | 97.4 millions | 998 millions | 1:10 times |
| Population density | 51 people per sq. km. | 336 people per sq. km. | 1:6.1 times |
| Labour force | 40 mn | 439 mn | 1:11 times |
| GDP: | 474.9 billions of dollars | 495.7 billions of dollars | Almost equal |
| Per capita gross national income | 4,440 dollars | 440 dollars | 10:1 times |
| Total exports | 136,391 millions of dollars | 38,326 millions of dollars | 3.5:1 times |
| Total imports | 141,975 millions of dollars | 55,385 millions of dollars | 2.5:1 times |
| Foreign direct investment | 11,800 millions of dollars | 2,200 millions of dollars | 5.3:1 times |

**Source:** World Development Report, 2000-01

Table 2. **Mexico and India in 2006**

| | Mexico (2006) | India(2006) | Remarks |
|---|---|---|---|
| Area | 1,958,000 sq. km. | 3,288,000 sq. km. | 1:1.6 times |
| Population | 105 millions | 1120 millions | 1:10.5 times |
| Population density | 53.6 people per sq. km. | 335.5 people per sq. km. | 1:6.5 times |
| Labour force | 38 mn | 509 mn | 1:13.3 times |
| GDP | 741 billions of dollars | 796 billions of dollars | India is 7 % more |
| Per capita gross national income | 10,600 dollars | 3,700 dollars | 2.9:1 times |
| Total exports | 248,000 millions of dollars | 112,000 millions of dollars | 2.2:1 times |
| Total imports | 253,000 millions of dollars | 187,000 millions of dollars | 1.3:1 times |
| Foreign direct investment OECD 2004 | 14 billions of dollars | 4.6 billions of dollars | 3:1 times |

**Source:** CIa, The World Fact book 2006, https://www.cia.gov/cia/publications/factbook/geos/in.html#Econ

The macro economic data reveals the rapid growth and transformation that had taken place in the past decade in these countries. However the resent high economic growth that takes place in India is more interesting and become the subject matter for the various scholars to analyse and study. This factor plays as important determinant factors for the MNC to make their decision to establish their operations in the market and to have their share.

### *5. Automobile industries and its relevance in these two host economies*

What moves from country to country when a direct investment takes place is not primarily physical capital or production capacity, but rather intellectual capital, or techniques of production, unobserved and unmeasured. There may be movements of physical or financial capital accompanying the intellectual capital, but there need not be, and they are not the

essence of the investment. In the automobile sector major producers have already consolidated and are rationalizing their operations. In the context of rapid changes and growth in automobile sector, there is an impact on other segments and to various stake holders in the host countries. As explained earlier this sector has a long chain reaction of impact that happens due to its strong forward and backward linkages. Also a results of economic liberalisation in India in the beginning of 90's, a key global players in the automobile sector had made capital investment and begin their operations. However more than a decade had passed it is the interest and time to analyse the impact to the host countries and the key role played by these MNC in the economies. To have a good analysis it is always better to compare the automobile sector with reference to an another similar economy, for which I have selected Mexico for my reference and comparative analysis.

Manufacturing has been the outstanding performer in Mexico's economy. Since recovering from the debt crisis of the early 1980's and accelerating with the implementation of NAFTA in 1994, there has been a shift in industrial development from import substitution towards export orientation. While it is a familiar pattern in many nations and industries, Mexico has one big advantage: the world's largest and richest market is a neighbour, made uniquely accessible through a free trade agreement with added geographical infrastructure. When relatively low wages are added to the equation, the result is that in the early part of the new millennium manufacturing exports have a share of 88 per cent of total exports and intermediate goods make up 77 per cent of imports. Transforming these imports into exports employs millions in Mexico. The form of manufacturing of most interest to foreign companies with their eyes on the US market is something called a maquiladora. This is in-bond assembly of imported intermediate goods for re-export. Making up a large portion of Mexican manufacturing, about 3,500 maquiladora plants are dotted mostly along the US border.[5] In which the assemble motor vehicles, is one of the major sector. Both Indian and Mexican automobile components manufacturers are gradually moving from being low-tech and uncompetitive towards modernisation, adopting ISO certification in increasing numbers, and the proportion of locally produced input materials is increasing.[6]

### *6. FDI by MNC in India and Mexico*

The indian government introduced new reforms on macroeconomic and structural changes in 1991. Direct tax rates were reduced for both individuals and corporate entities, with the expectation that reduced tax rates would lead to greater compliance. Tariff rates too were reduced, and the peak tariff rate came down from 350 percent in 1990-91 to 35 percent in 2000-01. The structure of the other indirect taxes was rationalized, and a process was put in place to enable the introduction of value added tax[7] in the foreseeable future. Licensing was eliminated, and firms in all but a few sectors were allowed to start operations without government approval. The impact of de-licensing was most evident in sectors like steel, automobiles, FMCG and consumer electronics which witnessed a surge in entry of new firms. Over time, capital account restrictions were eased to allow Indian companies to raise capital abroad, by way of Eurobonds and GDR/ADRs,[8] and acquire firms in other countries. The domestic capital market was restructured with the Securities and Exchange Commission and the National Stock Exchange as the driving forces, and interest rates were liberalised. In brief, market forces were unleashed both in the product and, by and large, in the stock markets, and firms were given much more freedom to realize gains associated with allocational efficiency.

The government also made it easier for MNC to invest in India. Today, India welcomes foreign investment in virtually all sectors except defence, railway transport and atomic energy. In order to better understand the reason behind India's sub-expectations performance, in so far as quantum of FDI is concerned, one has to probe at the sub- national level. Specifically, one has to understand the nature and ex post views of the MNC investing India. Are they large MNC, for example, who want to have a small exposure to India by way of a downstream affiliate or are they largely in sectors like automobile sector where there is a lot of scope for capital investment, transfer of technology and business "know how". But at the same time MNC also look the scope for significant market potential, local resources to support its overall productivity process and the potential for export which will be over and above the social and policy support of the host country. MNC also look for the various options to enter like joint ventures (JV's) , Merger and Accustion and new project or green field. Largely by way of JVs where the investment is split between

MNC and local firms, thereby reducing the MNC contribution to capital? Given the possible relationship between entry mode choice and the aforementioned intangibles, what determines the choice of the entry mode? are MNC that are in operation in India meeting their expectations about performance, thereby signalling to others that investment in host country are worthwhile?

Interestingly, few of the automobile sector investment happen in India by the MNC that are large, but not that to compared the investment level made by these MNC in Mexico. The majority of the MNC investing automobile sector in India and Mexico are focused on a single activity or product; this suggests that these MNC with clear business focus enter host country, possibly with a well-defined business strategy, whether seeking resources or markets.

Mexico's liberal FDI regulations, preferential access to North America and Europe, and proximity to Latin America make it highly attractive for FDI. FDI inflows to Mexico have increased dramatically in the 1990s. Mexico's closer integration with the United States drove its economic boom in the late 1990s and 2000, and it continues to attract major FDI inflows. Mexico is playing a key role in the ongoing globalization of auto production thanks to its trade and investment liberalization policies which have encouraged higher levels of productivity and competitiveness in the auto industry. As a result, the Mexican auto industry has developed a strong foothold in the global marketplace, specializing in the production of small and medium-sized cars and light trucks, as well as engines and auto parts. In 1999, the industry produced more than 1.5 million vehicles (cars, trucks and buses), three times the number of units produced in 1993, of which more than 70 percent are slated for export.[9] Tariff reduction under NAFTA has enabled larger trade flows and encouraged the integration of the North American auto industry. Since 1993, U.S.-Mexico trade in vehicles and auto parts grew 325 percent, an annual average growth rate of 28 percent. Under NAFTA rules of origin, inputs sourced in NAFTA partner countries entered Mexico duty free, providing the Mexican assembled final product was re-exported to a NAFTA country in which more than 80 % was to US. Thus, the United States shipped automotive parts to Mexico; Mexico assembled them into cars and re-exported them to the United States.

In 1999, Mexico became the U.S.'s third largest trading partner in this sector, surpassed only by Canada and Japan. Mexico accounts for 11 percent of total U.S[10] automotive trade. Since NAFTA's implementation, foreign direct investment in the sector has averaged US$2.5 billion per year. Automakers from all over the world have opted to produce in Mexico because of its competitive labour force and strategic location that results from its network of FTA's. Today, Ford, General Motors, Daimler-Chrysler, Volkswagen, BMW, Renault-Nissan, and Honda have operations in Mexico, and produce not only for the domestic market but, for a potential market of consumers in the U.S. and Canada.

There have been many studies for other countries, mostly examining the relation of firms' or industries' foreign production to firm or industry exports. While there are some examples of negative associations, they are not frequent, and positive associations are more common (Lipsey 2002). What is noticeable in a review of past studies, but is not commented on so often, is the frequency of results indicating no association in either direction. The elements of impact are consistently significant in the expected direction, while the influence of FDI production is spotty, varies among host countries, industries, and types of parent company exports. One way of interpreting these findings is that there are no universal relationships between production abroad by a firm or a country's firms and exports by the investing firms, their industries, and the country as a whole.

There are circumstances in which foreign production tends to add to exports and circumstances in which it tends to reduce exports. The effect may depend on whether the foreign operations' relation to home operations is "horizontal" or "vertical," a distinction stressed by Markusen and Maskus (2002). It may also depend on whether the foreign operations are in goods industries or in service industries, are in developed or developing countries, or are in industries with plant level or firm level economies of scale.

## *7. Background of US MNC make investment in developing countries particular to Mexico and India*

Table 3. **Inflows of foreign direct investment**

Millions of US dollars

| Year | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mexico | 4393 | 4389 | 15069 | 9679 | 10087 | 14165 | 12409 | 13631 | 17588 | 27151 | 18275 | 14184 |
| India | 277 | 550 | 973 | 2144 | 2426 | 3577 | 2635 | 2169 | 3584 | 5472 | 5626 | 4585 |
| % of Change Mexico | | -0.1 | 243.3 | -35.8 | 4.2 | 40.4 | -12.4 | 9.8 | 29.0 | 54.4 | -32.7 | -22.4 |
| % of Change India | | 98.6 | 76.9 | 120.3 | 13.2 | 47.4 | -26.3 | -17.7 | 65.2 | 52.7 | 2.8 | -18.5 |

**OECD Fact book 2007:** Economic,
Environmental and Social Statistics - ISBN 92-64-02946-X - © OECD 2007
Source - http://ocde.p4.siteinternet.com/publications/doifiles/302007011P1T031.xls

Graph: 1. **FDI in Mexico and India**

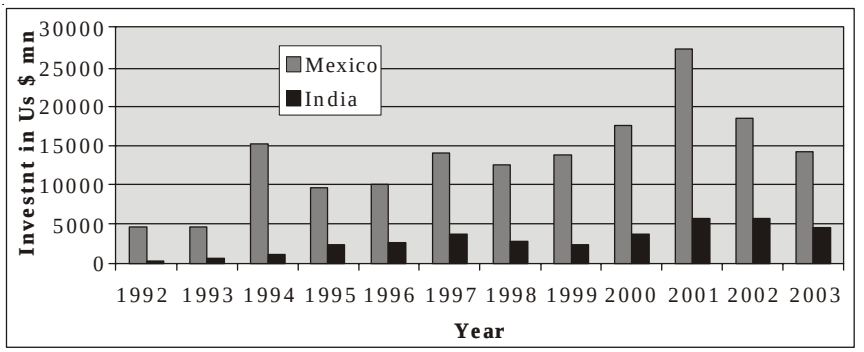


Table 4. **Top 4 Investors (FDI) in India (cumulative, 1991 to 2003)**

| Country | Total FDI (Rs. Crore) | % in total |
|---|---|---|
| United States | 57434 | 20.1 |
| Mauritius | 34350 | 12.0 |
| UK | 23224 | 8.1 |
| Japan | 11424 | 4.0 |

**Source:** Ministry of Commerce and Industry (Govt. of India); SIA Newsletter, April 2003

Table 5. **Top 4 Investors (FDI) in Mexico (cumulative, 1994 to 2005)**

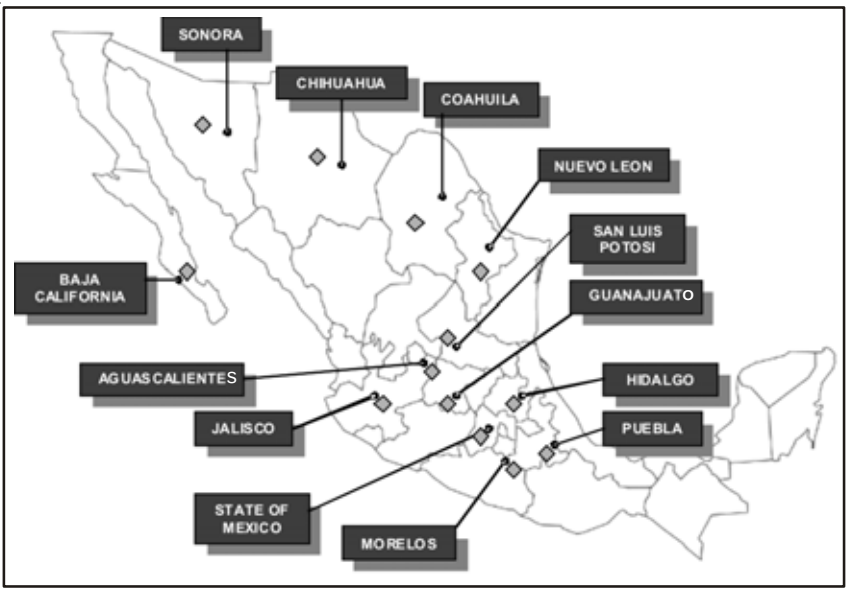
| Country | Total FDI (Rs. Crore) | % in total |
|---|---|---|
| United States | 111103 | 60.7 |
| EU | 48649 | 26.6 |
| Canada | 5500 | 3.0 |
| Japan | 3963 | 2.2 |

**Source:** Secretaría de Economía. Dirección General de Inversión Extranjera, México http://www.economia.gob.mx/pics/p/p1175/diciembre-06.xls.

In the analysis of the FDI in India and Mexico shows the trend that the Mexico's FDI had grown by 320% in the last decade where as for India for the same period it has grown 1650%. However the Mexico has a clear advantage in terms of absolute FDI investment compared to India. Interestingly the FDI from USA is being the top among the list in both the countries and the influence of USA in Mexico is as high as 60% of total FDI that happens in Mexico. It is important and required to closely observe and to analyse the various policy in line to the developments that happens in the USA economy and the tends in the FDI by the US Multinational corporations in particular to these developing economies. In India the USA FDI ranks top and despite of its level at 20% and USA being the worlds largest capital investor, the host country trends its policy and market focus towards the US MNC.

*8. Automobile manufacturing plants location in Mexico*

Map 1. **Automobile Manufacturing Companies and Location in Mexico**



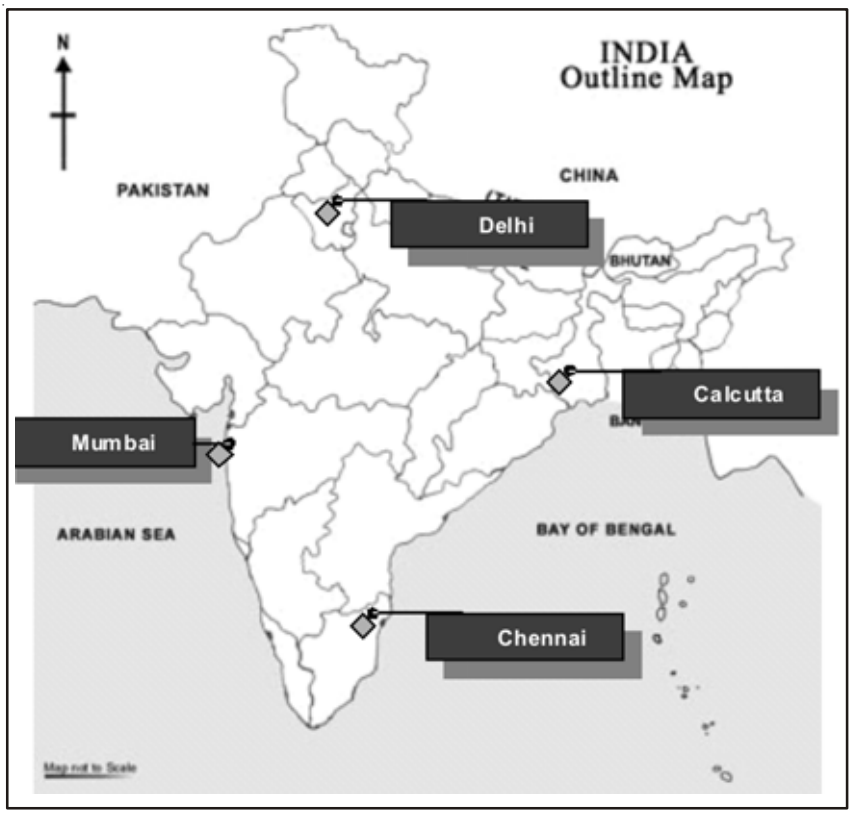

**Source:** AMIA, Mexico

## Automobile Manufacturing Companies and Location in Mexico

| Main producers location | Companies |
|---|---|
| Sonora | Ford |
| Chihuahua | Ford (Engines) |
| Coahuila | General Motors / Daimler Chrysler (Engines) |
| Nuevo León | Mercedes Benz (Buses) / Navistar (Trucks) |
| San Luis Potosí | Sania (Trucks) / Commines (Engines) |
| Hidalgo | MCI (Buses) |
| Puebla | Volkswagen (Engines) |
| Morelos | Nissan |
| State of Mexico | General Motors (Trucks) / Daimler Chrysler / BMW Mercedes Benz (Trucks) / Volvo (Trucks) / Ford |
| Guanajuato | General Motors (Engines) |
| Jalisco | Honda |
| Aguascalientes | Nissan (Engines) / Marcopolo (Buses) / Oymsa (Buses) |
| Baja California | Toyota / Kenworth (Trucks) |

**Source:** AMIA, Mexico

Map 2. **Automobile manufacturing plants location in India**




**Source:** ACMA, México

**Automobile manufacturing companies and location in India**

| Main producers location | Companies |
|---|---|
| Chennai - South India | Car - Hyundai / Ford / BMW / Toyoto<br>Mustibushi / Hindustan Motors<br>Heavy - ashok Leyland / Volvo<br>Two wheeler - Royal Enfield / TVS |
| Mumbai - West India | Car - GM / Sodak / Fiat / Daimler Chrysler<br>Mahindra / Renault<br>Heavy - TaTa / Force / MaN / Eicher<br>Two wheeler - Bajaj / Kinetic |
| Delhi - North India | Car - Maruthi-Suzuki / Honda<br>Heavy - Eicher / Swaraj<br>Two wheeler - LML / Hero Honda / Yamaha<br>Honda / Suzuki |
| Culcutta - East India | Car - Hindustan Motor / TaTa<br>Heavy - TaTa |

**Source:** ACMA, Mexico

The automobile manufacturing activity was well established in both the countries and all the major Multinational companies are in the market. However in the Mexico most of the manufacturing activity are concentrated in the central land unlike as the clustering happen in the four directions like in India. The above map and table will bring an outlook about the manufacturing activity by the different MNC had their operations in these two countries. This leaves us a question that what factors make the MNC to select their location strategies. as the Central Mexico and the location like North India which lack the geo graphic advantage of having a sea port to have a easy access to their export market. However a sound network of components supplier and other resources like manpower, land, power and local government support makes the companies to locate their huge investments other than port based cities.

*9. Mode of Entry by these MNC*

One effect of foreign entry mode that is widely accepted is the introduction of new industries or products to the host- country economy and the strong linking of the host country to the world trading system. The contribution of the foreign- owned firms is mainly of knowledge, particularly knowledge of demand in the

world market, and knowledge about how the host country can find a place in the worldwide allocation of intermediate steps in the path of production that can be geographically separated. Through both productivity effects and the development of new (to the host country) products, inward foreign direct investment is associated with faster economic growth. Those who value the overall economic progress will be convinced to the worth of the positive impacts by MNC involvement.

Most of the MNC entered into India either with green field projects or with joint ventures with local firms. MNC investing in the machines and equipment sector, however, prefer JV to green field.

Table 6. **Mode of entry by various MNC in automobile sector: India**

| MNC | Home Country | Mode of Entry in Mexico | Mode of Entry in India | JV partner |
|---|---|---|---|---|
| GM | USA | subsidiary | JV | |
| Ford | USA | subsidiary | JV | Mahindra and Mahindra |
| Daimler Chrysler | USA | subsidiary | JV | Germany Daimler has recently brought the Chrysler USA |
| BMW | USA | subsidiary | | |
| Nissan | Japan | subsidiary | No Investment | Proposed for a Car plant at Chennai with JV |
| Honda | Japan | subsidiary | JV | Shriram |
| Toyota | Japan | subsidiary | JV | Kirloskar |
| Mitsubishi | Japan | subsidiary | JV | Hindustan Motors Limited (HML) |
| Suzuki | Japan | subsidiary | JV | Maruthi Udyog Limited (MUL) Govt. |
| Hyundai | South Korea | subsidiary | subsidiary | Na |
| Daewoo | South Korea | subsidiary | subsidiary | Na |
| Fiat | Italy | subsidiary | JV | Premier automobile Limited (PAL) |
| Volvo | Spain | subsidiary | No Investment in Passenger Car | Has Investment in auto Bus Sector |
| Volkswagen | Germany | subsidiary | No Investment | Proposed for a Car plant at Chennai with JV |

**Source:** Various newspapers, websites

The capital formation that happens by means of FDI, is also matter of debate on what mode it enters the host economy and its effect. Popular belief, as well as implications from the scholarly literature, is that green field and joint venture are always good than of merger and acquisition. The some of benefits that Green field brings are the scope for new projects and wealth creation in the form of capital, new employment, new technology and so on, but it also has a drawback of ownership remaining to MNC there are slow and few chance of technology and other intangible befits diffusion to the local economies. To take care of this impact the host economies many times encourage the joint venture mode of entry which will have all the above benefits and also has the knowledge diffusion to local economy at large. The presumption on merger and acquisition is that, it may not contribute to new capital formation and employment generation at the time of entry which simply means a change of ownership.

UNCTAD's World Investment Report ( 2000, pp. 159-199) provides an extensive survey of literature studying the difference between Green field, Joint venture and cross border M&A in their impact on host country development. Some of the factor the survey examines are.

- Flow if external financial resource and capital formation
- Technology transfer, upgrading, diffusion and generation
- Employment and skill
- Export competitiveness and trade
- Market structure and competition

The study concludes that in the long run, it is difficult to discern explicit differences between the mode of entry in the above areas by themselves. The implication is that it is more important to examine the motivation of MNC and whether the economic development of the host country is positive and able to observe the different types of entry.

While the mode of entry classification is basically based on the nature of the stock acquired by the foreign investor. according to the case study carried in (Seong-Bong Lee, 2006) south Korea to find the impact and importance of FDI entry by different mode of entry. This research result shows that there is no significant difference between the various FDI in manufacturing sector that made an entry by means of three different modes in long run. Therefore, when the impact analysis is made at the firm level,

which is a reasonable thing to do, it is not surprising to find that there are no difference between the various modes of entry.[11] Further the future investment may take different forms from the original mode of entry, making it difficult to alienate economic impact of each part of single investment made over time. However he says that there is no logical foundation to provide various incentives on the basis of the mode of entry, which assumes that different modes of entry will have different economic impact on the host country. and he also admits the limitation on his study, that the sample size of large FDI cases was quite small and lack of data on employment and depreciation, value added or productivity could not be calculated. The longer the presence of the MNC, the greater the adjustment made to local conditions and grater the involvement in the domestic economy.

### *10. India and Mexico as a base for automobile sector*

MNC presence in the automobile sector in India and Mexican are and many of the top companies have their operation in these both developing economies with various brands and models in the market. The below table show a brief idea on the presence of various MNC in automobile operation that have their direct strong presence in the market.

Table 7. **List of MNC that had made new investment in automobile sector in India and Mexico since 1990's**

| MNC | India | Mexico | MNC Home Country |
|---|---|---|---|
| General Motors | Yes - * | Yes - * | USA |
| Ford | Yes - * | Yes - * | USA |
| Daimler-Chrysler | Yes - * | Yes - * | USA |
| Volkswagen | No | Yes - * | Germany |
| Fiat | Yes | No | Italy |
| Renault | No | No | England |
| Toyota | Yes - * | No | Japan |
| Nissan | No | Yes - * | Japan |
| Suzuki | Yes - * | No | Japan |
| Honda | Yes - * | Yes - * | Japan |
| Hyundai | Yes - * | No | Korea |
| Daewoo Motors | Yes - * | No | Korea |
| Mitsubishi | Yes - * | No | Japan |

**Source:** Various, - * are the MNC made new investment by late 1990's

The new foreign Direct Investment policy in India allows the MNC company to:

• Be 100 per cent foreign-owned and managed, without special licensing / authorisation, and

• Receive duty-free and value-added tax exemptions for the temporary import of goods and services intended for the manufacture of exports.

The industrial liberalisation policy has been a phenomenal success in India and as well as in Mexico. This opens a new opportunity for the various multinational companies participating in these economies since 1990's. The below table 8 show how much capacity was added since 1990 in India by various MNC investment in automobile sector.

In the Mexican automobile Industry the well-known names of the global motor vehicle industry has significant investment

and operation and using the Mexico as their base for exports apart fulfilling the domestic market demand. Together they account for 2.6 per cent of Mexico's GDP, 12 per cent of imports and 20 per cent of exports. They are Mexico's second largest employer and produce close to two million vehicles annually, making Mexico the 9th largest vehicle manufacturer in the world.

*The Well-Known MNC in Mexican Markets:*

• **BMW** owns an assembly plant and has an active parts purchasing program for its factories worldwide.

• **Daimler Chrysler** has two locations for assembly plants for passenger cars, engine and stamping plants and the assembly of trucks.

• **Ford** assembles cars, light trucks and mini-vans, operates a stamping facility as part of one assembly plant and makes engines in Chihuahua.

• **General Motors** has three plants making trucks, sedans and utilities, supplying a quarter of the market.

• **Honda** makes 20,000 accord cars in Mexico with parts and engines from its other North American plants.

• **Mercedes-Benz** makes trucks and buses in Mexico and imports passenger vehicles from its production facilities in Germany, the US and Brazil.

• **Nissan** is Mexico's second largest motor vehicle producer, manufacturing passenger cars, light trucks, car parts and components (including machined, stamped, cast and aluminium).

• **Peugeot** imports cars and has built a huge distribution facility on the edge of Mexico City, aiming for sales of 30,000 by 2005.

• **Renault** uses its Nissan partnership to make compact cars in Mexico, targeting markets from Mexico to the Caribbean, Central and South America.

• **Toyota** imports passenger cars and is investing in a plant to make pickup truck assemblies.

• **Volkswagen** is Mexico's largest vehicle exporter and at Puebla keeps 16,000 workers busy building almost 1,000 new cars a day (270 of them new Beetles, only produced in Mexico).

• **Volvo** makes trucks, assembles cars and buses and sells Mack trucks.

• **Audi, Jaguar, Land Rover** and **Porsche** are also active selling imported vehicles to a niche segment.

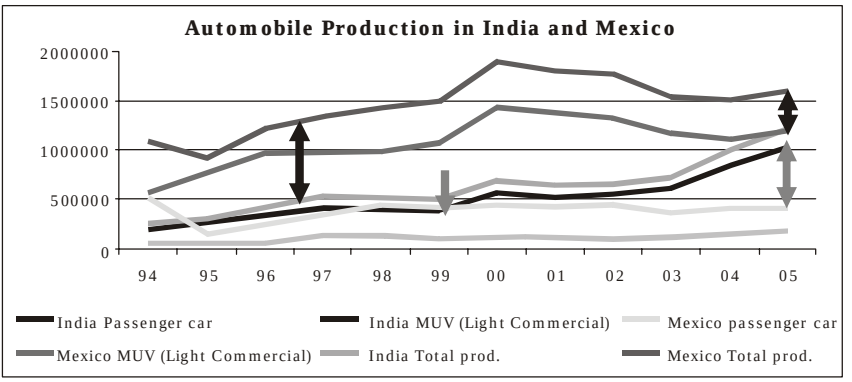
Table 8. **Automobile production summary: Mexico and India**

| Country / Year | Production in ('000) units | | | Domestic Sales in ('000) units | | |
|---|---|---|---|---|---|---|
| | 1990 | 1997 | 2005 | 1990 | 1997 | 2005 |
| Mexico | 821 | 1338 | 1603 | 550 | 503 | 502 |
| India | 364 | 770 | 1210 | 357 | 761 | 1045 |

**Source:** UNIDO, The Global automotive Industry Value chain, 2003 report and INEGI, The Automotive Component Manufacturers Association of India (ACMA).

The above table 8 shows the impact and the growth of automobile production and sales in these two developing market in the past two decades. However it is notable to see that the production capacity has seen a growth of 195 % in Mexican production capacity and the domestic sales was almost stable. In the same period the production capacity in Indian automobile sector had seen a growth of 332 % over its 1990 capacity and interestingly it domestic sales too had seen a growth of 292 %. The rest of its production was exported to other market mainly by the MNC. The huge excess capacity over to its domestic requirement gives an clear edge for Mexico to export its automobile product, primarily to North American market in which more than 80 % is to USA. The impact of NAFTA is also influencing the growing export of automobile products to North America from Mexico and to other countries which the Mexico has the advantage by means of Free Trade agreements.

Graph 2. **Growth in automobile sector in India and Mexico since 90's**




**Source:** INEGI and The Automotive Component Manufacturers Association of India (ACMA),
X: axis represents the production in numbers and Y: axis represents the year

Both these developing countries automobile sector was growing steady and the production level in the passenger car in India is higher than the present Mexican level, the crossover had happen around 1999, which was mainly due the economic liberalisation that was introduced in 1991 in India. Due to this new opportunity and the growing market with a population of over 1 billion, many MNC had made their FDI in automobile sector and expanding their capacity over the period ever since. The Indian production of light commercial vehicles was far below the Mexican level and the majority of the production are made with the focus to the export market in particular to North America. Almost 73 % of the production was exported to the North America (AMIA, Mexico) in 2006, which has a positive impact to the overall Mexican economy.

Table 9. **Trend in passenger car production: India and Mexico**

| Dimension | India | Mexico |
|---|---|---|
| Total Passenger car Production in World 2000 | 40987856 | |
| Total Passenger car Production in World 2005 | 46008847 | |
| % of change 2000 - 2005 | 12.25 | |
| Production of Passenger Car 2000 | 513948 | 1279089 |
| Production of Passenger Car 2005 | 1264000 | 989840 |
| % of change 2000 - 2005 | 145.94 | -22.61 |
| Direct employment in the auto and parts production | 270000 | 137000 |

**Source:** OICA, INTERNATIONAL ORGANIZATION OF MOTOR VEHICLE MANUFACTURERS, Paris, http://www.oica.net/htdocs/Main.htm

From the above table 9 is evident that the world production of passenger car had grown over 12 % between 2000-05 and interesting to note that the production of passenger car in India had grown by a 145 % for the same period. This was mainly due to FDI by many MNC like General Motors, Ford, Hyundai, Honda and Toyota are few key players to mention apart from the new investment and production from the domestic company like TATA and Mahindra and Mahindra. These new investment and production by various MNC made Indian passenger car production numbers to surpass the passenger car production in Mexico. For the same period in Mexico the production had dropped by 22 %. This is mainly due to the stagnant demand in Mexico and economic recession in United States of America. According to AMIA figures almost more that 70 % of the automobile production in Mexico are export oriented and mainly to United States of America, any impact on the USA economy will have a direct impact on the Mexican Automobile industries.

## *11. Concluding remarks*

The purpose of this study is to address the link between FDI by MNC and in particular to analyse the impressive growth of automobile sector in these two developing economies. A comparative study between India and Mexico has given a broad insight on how the automobile sector had performed since 1990's and the role of MNC in this sector. FDI flows to developing countries showed a sharp rise during 1990's and emerged as an

important instrument of local and global economic integration. This reflects the growing recognition of the role of Multinational Corporations that brings the capital investments in the form of FDI and also has a positive influence in the local economic development and the spillovers effect that gives a growth of similar industries for supporting its various production activity by means of forward and backward integration. The surge in FDI in automobile industries has been facilitated to a great extend by the NAFTA and the strong export market that Mexico has a key advantage over India. In India the growth was mainly by the new FDI which has been facilitated to a great extend by the changes in the new auto policy that allows foreign companies to invest in the automobile sector, 100 % and the opportunity in the domestic market followed by the various other factors like huge skilled labour force and cost comparative advantage over other developed and developing countries.

The major point that emerges from this work is that pattern of automobile sector growth and the role of MNC that played in this both host country since the globalisation in 90's. The impact of production growth and export growth in particular to Mexico was interesting to note and gives researchers more scope to look at a specific case to case basis to examine and evaluate the potential benefits of FDI and the role of Multinational companies. Also to evaluate the positive and negative contribution (Spillover effects) in automobile sector and to the overall host economy by automobile sector or any other sector that has a dominant influence in the host country economy.

Interestingly in the Indian automobile sector the presence and role of domestic companies do exists in the finished product market, unlike in Mexico where totally was controlled by the various MNC. This was mainly due to the different approach in the policy and the host country strategy to attract the FDI in the automobile sector. For example the entry of several MNC in the automobile sector was routed through a joint venture with the local companies in India, like Suzuki the largest manufacturing MNC in India with Maruthi Udyog (Suzuki) limited an partner ship with the government stake. Similarly the entry of Ford Motor Company with Mahindra and Mahindra which introduced the Ford Esteem and Ikon model in the domestic market in 1995 and latter Ford Motor Company had his own subsidiary in 1999 and build a new plant at Chennai in south of India. This type of entry through joint venture strategy also benefits the host country to get the technology and business "know how" both in the product

and process that gives a mutual benefits to the MNC and to the host country companies in long run.

However the growing world market and domestic market lives scope for future expansion and introduction of domestic manufacturing facility in Mexico for the automobile products by means of joint venture form various other developing countries companies that works in line to the inherent strategic interest of Mexico. Developing countries like Indian which has similar macro socio-economic characteristic like democratic political system, dynamic growing economic and social structure should come together to have new ventures in the automobile sector where presently no domestic company exists en Mexico despite of 80 years of Automobile industry evolution. Mexico future domestic automobile companies has a scope to look beyond the USA and European MNC like some one like Indian companies TATA, Mahindra & Mahindra and Hindustan Motors for their future investment and strategic opportunity to have the strong domestic supply and expand to export market beyond North America.

## *Notes*

[1]In India, for instance, the fear of the multinational was referred to the historical experiences with the East India Company and followed by establishing British colonial rule in India. For example the political movement and policies in the 70's by the Janata Party and also by the communist parties against the MNC lead to exit of Coca-Cola, Ford Motors from the market. In 90's after introduction of new liberalisation policy in India there was a anti-multinational movement led by various organisation like Rastriya Savak Sang (RSS) as Swedish movement (support to domestic goods and services) and few reservations raised by the communist party was in difference to the national policy towards MNC.

[2] Refer to the UNIDO, The Global Automotive Industry Value chain, 2003 report

[3] Please refer to the article by Aravindan Mukerjee and Tricochan, (1996), Caves (1982), Kalus E Meyer, (2004) , Louis T. Wells, Jr. (1998), Ravi Ramamurti ( 2004*), and* WDR (1992).

[4] Various intangible techniques and skills like managerial, process, international standard systems like ISO and Total Productivity Management are few examples that are transferred to the domestic companies and by large it helps the domestic companies that are associated directly to these MNC gain more and diffused to local firms through various forward and backward linkage. According to ACMA, India the number of Local firms in automobile component sector that had obtained the ISO system has grown significantly from 337 auto components industries in India in 2002 to 456 companies in 2005 out of 498 members.

[5] Based on the information published in the article "Thousands laid off in Mexico" on 22-08-2001, on the web site The batt.com, The independent student voice of Texas A&M since 1893. http://media.www.thebatt.com/media/storage/paper657/news/2001/08/22/Worldnation/Thousands.Laid.Off.In.Mexico-512683.shtml

[6] As per the information provided by INA, Industria Nacional de Autopartes A.c, Mexico D.F and information published by ACMA, The Automotive Component Manufacturers Association of India

[7] Value Added Tax * VAT * was introduced in the year 2003 in India and in the case of Mexico it exist well before.

[8] GDR – Global Depository Receipt and ADR - American Depository Receipt

[9] Based on the statistical data and the report from the Asociacion Mexicana de la Industria Automotriz, AMIA.

[10] Source NAFTAWORKS, http://www.maquilaportal.com/public/artic/indexartic.htm

[11] For details see the case study on LG Phillips LCD and BASF Korea carried by the Seong-Bong Lee (2006)

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