

# FEATURES OF INDUSTRIAL DEVELOPMENT IN MALAYSIAN ECONOMY

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## **Abstract**

*Malaysia's industrial achievement with resilience and comprehensive development has helped the economy to promote export oriented manufacturing. It has not only substituted imports but has enabled the country to enter successfully the competitive global export market.*

*It has obtained the status of self reliant production and productivity. It has tremendously attracted foreign and domestic investment to diversify the face of industrial development according to the changing needs of the global requirement. It has facilitated the quality and promotion of primary, secondary and tertiary sectors of the industrial development with its impressive impacts of trickle down, to satisfy the social needs of the poor and destitute, also.*

At the time of inception in 1963 Malaysia was an agricultural country. Majority of the Malaysian population (presently 27 million persons) was depending on agriculture and earning their livelihood from it. Therefore it was faced with the agriculture – related problem of disguised unemployment, poorness, slums and misery, in the early years of its birth. Malaysia is a country of multi – ethnic, multi – religious and muslim majority population. Since the establishment of independence, Malaysian leaders decided to focus on rapid industrialization of the country.

From the first five year plan (1965 – 1970) and onwards, Malaysia committed itself to transform from reliance on agriculture and mining to manufacturing. With the assistance of Japan, Malaysia started moving from primary to secondary and tertiary stages of achievement. Export oriented industries were preferred on import –

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oriented set up. Malaysia moved from pre – conditions for take – off to the stage of self – sustained growth of industrial development. Malaysia has stressed upon rural as well as urban industrial development through planned economic development (First Plan 1965 – 1970 to ninth plan 2006 - 2010) and will continue onwards during the new millennium. From the beginning in 1970s it emphasized on the promotion of the following industries.

### **1. Wood Based Industry**

Wood based industry in Malaysia comprises in the following major sub sectors.

#### **a) Sawn timber:**

This industry may be considered as an establishment of 1200 operating sawmills.

These mills are producing sawn timber veneer and panel products including plywood, particle board, fiber-board, mouldings, doors, windows with components, panels and flooring board (parquet), furniture and furniture components. More than 90% of these mills are locally invested and are comprised of small and medium – size (SME) establishments. Export of sawn timber and its products amounted to RM 2.6 billion. Most of these commodities are exported to Thailand, Netherlands, Japan, China and UAE. As regards plywood and veneer products, Malaysia earned more than RM 6.4 billion in 2008. Currently Malaysia is the largest exporter of tropical plywood in the world. It has about 180 mills in operation. Simultaneously, the MDF (Medium Density Fireboard) industry has developed 14 plants up to 2008 and earned RM 1.2 billion from exports in 2008. Currently Malaysia is the third largest exporter of MDF after Germany and France.

#### b) Moulding and BJC (Builders joinery and carpentry)

This industry produces architectural moulding including panelling, crowns and chair rails, doors, windows and accessories, wooden flooring and railings etc. Malaysia exports moulding and BJC products to USA, U.K, Australia, Singapore, Denmark and others. Its exports from moulding earned about RM 745.2 million, and RM 1.35 billion from BJC in the year 2008. Presently there are about 350 plants of moulding and BJC in Malaysia.

### **Furniture and Fixtures**

It is highly export oriented industry. Malaysia is the 10th largest in Asia, exporter of furniture. In the year 2008, Malaysia fetched RM 6.8 billion through exports to USA, Japan, Australia and others. Presently there are 1800 furniture companies in Malaysia. This industry has been diversified and transformed from manual designing to CAD (Computer Aided Design) and also uses other materials like metal, glass, plastic, rubber, wood for sophisticated marketing. This industry is also producing engineered wood products, which are used in industrial, construction, automotive and furniture industries.

### **2. Food Industry**

Malaysia is net importer of food. However it also exports the abundant food processed commodities. Main products of exports are palm oil, cocoa, spices, poultry meat, eggs, fisheries products, margarine and shortening, animal feed etc against major imports of cereal and cereal preparations, cocoa, vegetables, fruits, dairy products etc. In the live stock sector Malaysia is the third largest producer of poultry meat in the Asia Pacific region. Malaysia is self sufficient in poultry; pork and eggs. Malaysia is the largest cocoa processor in Asia and ranks fifth in the world. It is also ranked as

fifth largest exporter of pepper and pepper – related products. Malaysia has also started halal meet industry, which can easily attract the muslim dominated markets of ASEAN, Middle East, Europe and USA. In the year 2008 Malaysia earned RM 17.9 billion from exports against imports of RM 28 billion, reflecting a deficit in balance of trade on this count. †

### **3. Rubber – Based Industry**

Malaysia is one of the largest rubber producing countries. The rubber products industry has more than 510 manufacturers producing latex products, tyres and tubes, industrial and general rubber products. Malaysia's natural rubber production totalled to 1.20 million tons in 2007, as compared to 1.28 million tons in 2006. This natural rubber production is consumed by the industries, manufacturing rubber gloves, rubber thread, tyres and tubes, and latex products include the manufacturing of medical, household and industrial gloves, catheters, latex threads, balloons, finger stalls and foam products. This industry employs more than 69000 workers and contributes RM 10.58 billion to GDP through exports, annually. The industrial and general rubber products are used by automotive, electrical and electronics, machinery and equipment and construction industries. Government is encouraging its further expansion through the provision of fiscal and infra-structural incentives.

### **4. Textile and Apparels Industry**

This industry includes the products of polymerization and man made fiber production, spinning, texturizing, weaving, knitting, dyeing, printing, finished yarn and fabrics, manufacturing of garments, carpets, bed and table linen and ropes etc. Since 1970s, it is an export – oriented industry, and its exports valued at RM 10.50 billion against imports of RM 5.46 billion, enabling Malaysia as a net

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† MIDA'S (Malaysian Industrial Development Authority) website

exporter of textiles and textile products. The Third Industrial Master Plan (IMP3) envisages in itself the further promotion of this industrial sector to improve productivity, flexible manufacturing, technical competence, automation and strengthening of the overall linkages. This may enhance the production of industrial and home textiles, functional fabrics, high-end fabrics and garments, ethnic fabrics etc. Key support facilities such as design houses, fashion centres, dyeing and finishing services are being expanded during the ninth five year Plan (2006 – 2010).

## **5. Engineering Supporting Industry**

### **i) Machinery**

This industry is planned as one of the key areas for growth and development of high value-added and high technology in the field of machinery and equipment. This may enable Malaysia to enter the competitive edge providing engineering design with R&D, high skilled and knowledgeable workforce, higher technology and high quality production comparatively at lower costs. Activities of this industry are based on R&D, D&D, software development, system integration, assembly, testing and calibration to emphasise upon quality of production. This industry is based on the following sub-sectors.

#### **a) Machining**

This industry in Malaysia provided machining services to other industries on a jobbing basis, precision machined parts such as jigs and fixtures, turned parts, shafts, pins, bushes, gears for watches, clocks and cameras, design and manufacture of automation systems, equipment for semiconductor, electrical and electronics industries, are supplied with required materials.

### b) Metal Stamping

This industry supplies stamped / pressed parts to the automotive, electrical, and electronics, machinery and equipment, miniaturized parts, precision measuring testing equipments to the relevant 300 companies, for the production of these and other commodities.

### c) Moulds and Dies

This industry is the leading engineering supporting organization in the country. Presently there are 400 companies employing 14000 workers of moulds and dies in Malaysia. Its products include various types of moulds, dies and toolings to satisfy the diverse needs of the manufacturing sector. Electrical, electronics, automotive and plastic industry is also benefited by the products of moulds and dies. Malaysia meets the 60% of the local demand and remaining is imported.

The die-casting sector also supplies components for the electrical, electronics, automotive, telecommunications etc. It also works as supporting industry for producing computers, computer peripherals, cameras, home electrical appliances, automotive components for oil and gas, aerospace, medical, defence and photovoltaic industries. Presently, Malaysia is encouraging companies to gain the position of "ONE STOP CENTRES" to facilitate customers with the provision of total solutions at single place as a one window operation method.

### d) Plating/Surface Treatment

There are more than 40 companies which have the capabilities to undertake various electroplating, precision electroplating, electroless plating, functional electroplating, cathodic electrodeposit, dactotised treatment, phosphating, passivation, anodizing, chromating, electroplating for semiconductor

industry including integrated circuits and lead frames, sinter plating and physical vapour deposition etc. Presently Malaysia is establishing modern plating plants to support the rapid industrial development of the country.

e) Heat Treatment:

There are more than 20 companies of heat treatment in Malaysia. It provides its services for mesh-belt heat treatment, carburising, vacuum hardening, quenching, annealing, normalizing and tempering etc for diverse range of steel manufactured products. Its simultaneous development alongwith the promotion of machinery and equipment, mould and die, secondary products of iron and steel and automotive components industry is must to cope with the requirement of rapidly growing industrialization of Malaysia.

## **6. Electronic Manufacturing Services**

This industry supports the Original Equipment Manufacturers (OEMS), Original Design Manufacturers (ODMS) and Original Brand Manufacturers (OBMS) industry. These industries commonly use the services of electronic manufacturing. Such services help these industries to reduce time – to –market, time to volume, flexibility and quality in the advanced technology, evaluation and strategic business solutions. These services are widely used by the following industries.

i) Electronics Industries

Electronics industry plays pivotal role in the manufacturing sector of Malaysia. It is an export oriented industry. In the year 2008, this industry's out-put valued at RM 167.2 billion (US\$ 53.9 billion) and exports earned Malaysia US\$ 75.4 billion or RM 233.8 billion. Presently it employs about 3 lac people. This industry manufactures semiconductor devices, high end

consumer electronic, information and communication technology (ICT) etc. Malaysian electronics industry can be classified in the following set – up.

ii) Consumer Electronics

This sub-sector of electronic industry manufactures color television receivers, audio-visual products such as digital versatile disc (DVD) players, recorders, home theatre systems, blu-ray, mini-disc, electronics games consoles and digital cameras. This sub-sector earned Malaysia RM 21.5 billion (US\$ 6.9 billion) through exports to the Asia-Pacific region, in the year 2008.

iii) Electronic Components

This sub-sector is busy in manufacturing semi-conductor devices packaging, assembly and test, passive components, pointed circuits etc. It has attracted abundant foreign investments. This forms 91.5% of the total exports of electronics components.

iv) Electrical

There are more than 380 companies in this sub sector. It manufactures electrical components and house-hold appliances including wire and cables, electrical industrial equipment, air-conditioners, refrigerators, washing machines, vacuum cleaners and other electrical appliances. In the year 2008, Malaysia exported electrical and relevant electronics products of RM 13.74 billion (US\$ 3.8 billion) against import of RM 10.28 billion (US \$ 2.5 billion).

## **7. Basic Metal Products Industry**

This industry has developed tremendously since 1980s. It has played a vital role in the industrial development of Malaysia. It can be classified as under:



i) Iron and Steel Industry

This industry may be considered as a foundation laying pillar in the industrial development of Malaysia. Its products are composed of direct reduced iron, hot briquetted iron, blooms and slabs, steel billets and bars, hot rolled coils, cold rolled coils, coated steel coils, roofing sheets, steel pipes and sections, wire rods, wire mesh, hard drawn wires, galvanized wires, steel wire products, stainless steel pipes, fittings, stainless wires and fasteners etc. Presently more than 230 companies are producing these products valued at RM 22.2 billion with an employment of 30000 workers. Iron and steel industry's products are used by construction industry, electrical and electronics industry, automotive industry, furniture industry, machinery industry and engineering fabrication industry.

ii) Industry of Non – Ferrous Metals

There are more than 180 companies in this sector. They manufacture products valued at RM 8.9 billion and employ more than 18000 workers. The non-ferrous metals sector covers the products of tin, aluminum, (sheets, foils, finstock, ingots, rods, extended profiles), copper (rods, wires, strips, tubes, and tin metal etc), zinc and lead. This industry provides linkages in construction industry, electrical and electronics industry, automotive industry, food and packaging industry.

It may be mentioned that Malaysia's Third Industrial Master Plan (IMP3 – 2006 – 2020), aims at the strenuous development of Iron and steel industry. This may enhance its competitiveness, substance of exports, new foreign and domestic investments and development of skilled and qualified workforce.

## **8. Industry of Medical Devices, Pharmaceuticals, Petroleum and Polymer**

Malaysia is regarded as the world's leading producer and exporter of medical gloves (low protein, powder free, safety and clean room), catheters, syringes, surgical equipment, blood transfusion sets, blood pressure transducers, dialysis solutions, medical gases, hypodermic/spinal/ AV fistula needles, medical tubes and bags, diagnostic radiographic equipment, orthopaedic products and procedural kits. In addition to this, non-rubber made products made from plastics, silicone and metal alloys etc, are also being manufactured. Future plans aim at the further development of supporting industries which produce sterilisation services, sterile medical packaging, precision engineering, tool and die making to contract moulding and assembly and machinery fabrication in Malaysia. The government intends to establish import substitution industries in the manufacturing of electro-medical equipment, cardiovascular products, orthopaedic products, in-vitro diagnostic devices, wound care products and home care products etc.

In the field of pharmaceuticals industry, Malaysia produces medicines in all dosage forms, such as tablets (coated and non-coated), capsules, (hard and soft gelatin), liquids, drops, creams, ointments, sterile eye drops, small volume injectables (ampoules and vials), large volume infusions, dry powders, ophthalmic and nasal preparations, for reconstitution and active pharmaceutical ingredients etc.

Besides, local manufacturers develop traditional patent generics and herbal products to meet the domestic demand and export to the countries of Asia-Pacific Rim, Middle East, Africa, Latin America and Europe and earned RM 13 billion or (US\$ 142 billion), in the year 2008.

From the total of 234 pharmaceutical companies, 67 are producing modern medicines, such as analgesics anti-hypertensive, antibiotics

etc and the remaining 167 prepare traditional herbal medicines. More investments are in the pipeline for further advancement of this industry.

The sector of petrochemicals and polymer industry covers natural gas, petroleum products and petrochemicals. It is an important sector in Malaysia with total investment of RM57.2 billion, in 2008. Malaysia is regarded as 14th largest country of gas reserves and 23rd largest of crude oil reserves. In 2008, Malaysia per day produced 5890 million cubic feet of natural gas and 691600 barrels of crude oil per day. To ensure the security of gas supply, Malaysia has forged partnership with other ASEAN members such as Vietnam, Indonesia and the Malaysia-Thailand Joint Development Area (JDA) which plan to build ASEAN gas grid are being ventured to facilitate availability of gas to all 10 ASEAN members.

As regards petrochemicals it may be mentioned that decisions of ASEAN Free Trade Agreement (AFTA) are being fully implemented. This will boost exports to the markets of Asia-Pacific countries, China. World renowned petrochemicals such as Dow Chemical, British Petroleum, Shell, Mitsubishi and others are working in collaboration with Malaysia's natural petroleum company (PETRONAS). Malaysia's petrochemical industry is producing polyolefins aromatics, ethylene oxides, glycols, acetic acid, high impact polystyrene, ethyl benzene and exports all these petrochemical products as import substitution transaction.

More than 1600 companies are operating in this field, producing common household items, packaging materials, conveyance articles, parts and components for the electrical, electronics, automotive, office automation, computer and telecommunication for the use of relevant industries. Malaysia exports plastic products and in the year 2008, it earned to RM 9.34 billion, reflecting an increase of 11.5% in contrast of year 2007. Malaysia exports these commodities to EU, China, Hong Kong, Singapore, Japan and Thailand. More efforts are

in progress to enhance and sustain competitiveness through improved technologies, skills and training.<sup>‡</sup>

Besides these categories of industries Malaysia has also embarked upon rural industries. These industries include in themselves cattle, fisheries, farm performance including feed and fodder facility, water availability etc, cattle farming with facilities of slaughtering, beef availability, dairy farming, livestock arrangements, horticulture and Silvi culture activities. To ensure fruits availability in the world, dragon fruits, mixed farming, aquaculture and fishing as well as forestry, beekeeping etc, are focused upon properly. According to one estimate the value of rural industries and fisheries is estimated to be \$532 million in 2008, reflecting five percent increase from 2007. Cattle industry fetches about \$566 million in 2008 - 2009.

In the light of the industrial facts explained above, it may be mentioned that transformation of the manufacturing sector has sustained its competitiveness, which has determined the pace of industrial productivity and achievement at a rapid speed, despite global economic slowdown and financial recession leading towards melting down depression. Malaysia has accepted the challenging and competitive global manufacturing through dynamism and technical improvement. Complementary services are on the rise to promote knowledge – intensive and value creating entities. Greater industrial integration and technical collaboration is being emphasized to benefit from the increasing global deployment of production and services network. The industries sector is regulated and promoted by Malaysia Industrial Development Authority (MIDA).

## **Conclusion**

While concluding it may be observed that Malaysian industry

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<sup>‡</sup> Ibid various pages

achieved its average annual growth rate of 4.1% in the end of eighth five year plan i.e. 2005. It contributed 48% or 63.4 billion US dollars to gross domestic product (GDP), 80.5% to total exports and 28.7% of total employment in the country. Exports of manufactured goods grew at an average rate of 6.2% per annum. Exports of resource-based products indicated the further diversification and expansion of export bases to meet the growing external demand. Major markets for exports of manufactured goods were ASEAN Nations, USA, European Union (EU), Hong Kong, Peoples Republic of China, West Asia, South Asia, Central and Latin America, Eastern Europe etc. In future perspective plan (2006 – 2015), Malaysian industry intends greater concentration on major and high technology industries in the field of automotive, bio-technology, electrical and electronics (E&E) etc. Malaysian industry is also moving towards intensification of strategic integration with strategic and foreign affiliates including joint-ventures, mergers and acquisitions. This may enable Malaysia to generate greater inter-sectoral and intra-sectoral linkages of regional and global net works of production, investment and services. Malaysia's industrial out-put is ranked as 23rd in the world and 4th in the Asian economy. Malaysian industrial development has helped the economy to overcome the recessionary impacts of Asian financial crisis (1977-1998). Malaysian Economy has become so pragmatic to face the challenges of unemployment, mass poverty and massive bankruptcies. Its unemployment rate has been decreased to 3% of the total working labour force of more than 10 million persons. The rate of literacy increased from 88.6% in 1991 to 93.5% in 2000. The per-capita gross national income (GNI) increased from RM 18040 in the year 2006 to RM 20434 in 2007. Malaysian industrial development has facilitated the economy to stabilize the ringgit, restore market confidence, maintain financial market stability, strengthen economic fundamentals, to continue its quality redistribution and socio-economic agenda of tickling down the benefit to common poor man, and revive adversely affected sectors. It has also promoted reliance of financial sector and industrial

productivity. The earnings from industry has enabled the government in the recovery of the real economy by bringing surplus in the current account of the Balance of Payments, increase in the foreign investment and restoration of investor's confidence. Because of industrial development and productivity, Malaysia withstood and survived the economic shocks of decelerating US economy and dampening global contraction of electronics demand (major source of foreign exchange earning), in the aftermath of 9/11 (2001) attacks in USA, and weighed down by US war in Iraq and Afghanistan which had created further sluggish in the international market. The Malaysian government overcome these difficulties through promoting private sector investment, strengthening the nation's competitiveness, more participation of Bumiputera in manufacturing and investment developing new sources of growth and enhancing effectiveness of the delivery system. Crucial goals of up-scaling of the manufacturing sector towards higher value added activities are being pushed up. Industrial business and complimentary services are revitalized to ensure the achievements of knowledge – intensive and value creating entities. Greater emphasis is being placed on reinforcing innovation capability to augment productivity and competitiveness. Attraction of foreign investment may lead Malaysian industry to cope with the leverages of regional and global liberalization.

Finally it may be understood that Malaysian industry is developing at a rapid speed. It has increased its resilient potential, maintained macroeconomic stability in the context of onslaught of external factors. Its stabilized production, rectifies the sudden global imbalances, financial crisis and heightened geopolitical tensions. Malaysian industry has sustained its progress and achievement while completing with the fast moving challenging global marketplace which is linked to labour and capital-intensive modes of development. This may promote new sources of industrial growth and wealth creation.

## **Selected Readings**

- <sup>1</sup> Abdullah, Asma and Pedersen Paul B., *Understanding Multicultural Malaysia*, Pearson, Kula Lumpur, 2003.
- <sup>2</sup> Government of Malaysia, *Eighth Five Year Plan of Malaysia, 2001-2005*, Planning Commission of Malaysia, Kula Lumpur, 2001
- <sup>3</sup> Government of Malaysia, *EPU, New Economic Policy*, Economic Planning Unit, Prime Ministers Department, Malaysia, 2008.
- <sup>4</sup> Government of Malaysia, *Malaysia signs Bilateral FTA with Pakistan*, Business File, Malaysia, 2007.
- <sup>5</sup> Government of Malaysia, *Seventh five year Plan of Malaysia, 1996-2000*, Planning Commission of Malaysia, 1996.
- <sup>6</sup> Government of Malaysia, *Ninth Five Year Plan of Malaysia 2006-2010*, Planning Commission of Malaysia, 2006.
- <sup>7</sup> Hamisah Hamid, "Malaysia expects investment influx", *Business Time*, 2008.
- <sup>8</sup> Jomo K.S., *New Economic Policy and International Relations in Malaysia*, the United Nations Research Institute for Social Development, 2004.
- <sup>9</sup> Keith Bradsher, "Fuel Subsidies Overseas Take a Toll on U.S.", *The New York Times*, 2008.
- <sup>10</sup> Musa, M. Bakri, *Towards a Competitive Malaysia, Petaling Jaya*, Strategic Information and Development Research Centre, Kula Lumpur, 2007.
- <sup>11</sup> Sharmila Ganapathy, *Government Relaxes Bumiputera Quota for Public Listed Companies*, Kula Lumpur, 2008.
- <sup>12</sup> World Bank Report, *Malaysia Ranks 20th in the World for Ease of Doing Business*, Washington, D.C., 2008.