CHAPTER 4: RESEARCH RESULTS

This chapter illustrates the Strengths and Weaknesses, Opportunities and Threats faced by Siemens Power Generation in Malaysia.

4.1 SWOT analysis

4.1.1 Strengths

i) R & D Capabilities
As a major producer in power-plant generation, financial, technical, and technology resources are allocated into developing new products in order to satisfy the needs, requirements of customers, mainly the utilities and the IPP’s.

ii) Worldwide Representation
Siemens, being a multinational corporation, is represented and located in many countries, Asia Pacific region, Europe, USA and other parts of the world.

iii) Proven Track Record
Those power-plants supplied/installed by Siemens, have been working and running in a satisfactory condition; power-plants are well maintained, and well serviced with replacement and availability of spare parts.

iv) Favorable Global Governmental Relationship – Building.
Siemens have been recognized by many governments in different countries by developing countries by developing, building, and maintaining a favorable relationship by supporting host government’s policy.
v) Long Term Investor In Global Markets
As for the power plant generation industry, it becomes essential to invest long term, in order to recover long term capital required for long term projects.

vi) Proposed JOV With Government/Corporate Players In Foreign Markets
So far, in Malaysia region, Siemens has not ventured in joint ownership venture(JOV) projects, except with Yeoh Tiong Lay (YTL) power plant generation, holding and maintaining a minimal equity holdings with the corporate sector. As for the government, Siemens is not interested in the government JOV, as Siemens wanted to concentrate in its core competencies in the hardware, its software, skills, development, R&D capabilities etc.

vii) Embrace International Cultural/Values/Custums/Traditions In Foreign Markets.
Through observing domestic cultural, values, customs and traditions, Siemens offer and observed their local public holidays, participating in local traditional customs, such as offering gifts, hampers, cash contributions to charitable organizations, such as Pink Triangle, AIDS prevention center, religious and drugs prevention centers.

viii) Regional Center Of Excellence In SEA-Malaysia
To enhance government and foreign bilateral relations, selecting Malaysia as a center of regional excellence, supporting Malaysia, in keeping with government aspirations, it is always advantageous, to maintain a positive role play in enhancing a strong economic reforms, especially in achieving industrialized status nation by the year 2020, right now, supporting the MSC status projects, which are essential for IT-related development projects, especially in the Putrajaya and Cyberjaya areas, as the Silicon Valley in Malaysia.
(Personal Views based on the Research Observations & Secondary Data)
4.1.2 Weaknesses

i) Lack Of Domestic Government/Corporate Ownership In JOV Activities
Under normal business negotiations, JOV realizations amounted to the corporate sector, ignoring governmental participation, seems that government interest is not there at all. IPP, such as public listed company like YTL has a major stake and participation with the Siemens JOV. IPP’s in Malaysia has an increasing trend towards producing more power plants so that increasing demand for electricity can be met with increasing industrialization initiatives and efforts by the government policy.

ii) Lack Of Skilled Domestic Engineer Professionals
Malaysians qualified in the field of engineering have to be recruited by foreign MNC’s so that new recruits have an opportunity to be trained according to their company’s requirements and specializations, in order to satisfy the increasing demands initiated by the IPP’s/TNB expansionary programs. Therefore, more locals should be recruited in order to build up a human resource database so that more qualified local engineers could be recruited instead of hiring foreign engineers/expatriates.

iii) Pricing – Premium Strategy I.E. Uncompetitive
Due to the large capital investment infrastructure, high labor(direct & indirect) overheads, payment of royalty rights towards patent rights/registered trademarks, maintenance of high technology standards (ISO 9000/9001, 14000,14001), premium pricing policy has to be adopted to remain as one of the market players in the power plant generation industry. This is obvious as other major competitors such as ABB, General Electric, are also adopting the premium pricing policy. Therefore, it seems inevitable, but to adopt the premium pricing policy, due to the uniqueness of the specific industry.

iv) Lack Of Domestically – Made Spare Parts
Locals cannot produce the “high-tech” spare parts for the preventive maintenance required to keep the power plant running without unnecessary
breakdowns. In this case, it is an industry norm to import high-tech spare parts, which conforms to international standards in order to win tenders for the contracts for the construction of power plants.

v) Stringent Employment – Labor Policy.
There is no compromise in the recruitment for the qualified engineers, therefore, Siemens adopt a global search for the employment of competent engineers in order to fulfill the specific requirements for the power plant industry. Therefore, it is impossible to place a quota system, in order to give preference to local against expatriates. The most competent engineers will be recruited anyway, in a borderless world. (Personal Observations & Secondary Data)

4.1.3 Opportunities

i) More Future JOV Activities
In realizing the long term industrialization expansionary plans and the achievement of MSC status, with a healthy growth rate of 7.5% - 8% per annum, the stabilization of major global economies, it is forecasted that, there will be more future JOV activities towards the establishment of IPP’s in order to meet the increasing demands for electricity consumption.

ii) Change Of Foreign Policy Adopted By Siemens AG i.e., JOV-Related Activities.
So far, Siemens has never shown much interest towards the establishment of JOV-related activities with the IPP’s. It could be further suggested, that Siemens, could at least, participate in some IPP projects, just to achieve foreign ownership participation in the establishment of local IPP projects. There again, Siemens is concentrating in achieving their core competencies worldwide, participation in ownership scheme is never their corporate investment policy at all.
iii) **Locally Made Spare Parts – Cheaper Parts**
Malaysia, just does not possess the necessary “high-tech” industry infrastructure, to manufacture power plant spare parts. Therefore, it seems that, at the present moment, it is virtually impossible, to manufacture locally made spare parts, although it is cheaper to produce here compared to imported ones.

iv) **Diversification Activities**
In keeping with Siemens corporate policy of concentrating in core competencies, diversification activities can be achieved through management buy-outs, mergers, or take-over activities. This is obvious global company policy, it seems that this trend of diversification has become an industry norm worldwide.

v) **Regional Center Of Excellence – R & D, Training, MSC Status**
To propose and recommend to Siemens through the Malaysian government initiatives and strong government building relationship, in order to establish a regional center of excellence in Malaysia, representing the South East Asian region, in order to cater for R&D, training and achievement of MSC status, recognized, supported by the Malaysian government.

(Personal Observations & Secondary Data)

4.1.4 **Threats**

i) **Lack Of Availability Of Domestically Highly Skilled Professionals**
Several corporate and government training programs should be initiated, implemented to establish more training centers, or more university programs to increase training opportunities, facilities in order to cope with the needs of increasing demand for the highly skilled engineers. In coping with the increasing demands of ICT (information, communication, technology), increasing engineers should be trained in specific focused areas related to ICT, initiated by the achievement of the MSC status.
ii) **Expropriation May Happen**
So far, expropriation efforts have never taken place in Malaysia. For example, expropriation was quite common among the MNC's operating in India, e.g. Coca Cola was forced voluntarily to leave its plant operations in India in the 1970/1980's, for fear of Indian government intervention, in revealing its secret formula for Coke.

iii) **Continuous External Environmental Changes**
Every company operations is faced with the constant external environmental changes, e.g. economic, legal, social, technology and political changes, which may posed a major threat, for company survival, growth, expansion, and diversification objectives.

iv) **Changes In Government – Long Term Investment Policy**
Frequent government policy changes towards long term investment policy, e.g. foreign equity, tax incentive, federal/state government incentives, posed a major threat to MNC's operating in Malaysia. In Malaysia, it is quite common to see the above announcement towards changes as proposed in annual government budgets. Changes in long term investment policy such as tax incentives towards long term investment such as direct investment, JOV activities, corporation taxation, levies, concessions on the Free Trade Zones allocated by various respective state governments.

v) **Competitors Activities**
Figure 4 shows Siemens and their Competitors profile, where market shares for the past 5 years, from 1992/93 – 96/97 for Steam turbines power plants were described. General Electric (GE) and ABB are the two major competitors and Siemens has to constantly keep up with latest moves and developments.

vi) **Innovation Or Creative Capabilities**
To remain competitively as a major market player in any industry, a company has to be innovative, in order to stay ahead of the competition. So far, in the power plant industry, Siemens, ABB, General Electric(GE), are the major
market players dominating the industry. (Personal Observations & Secondary Data )

4.2 Michael Porter's Five Forces

4.2.1 Threat Of New Entrants

Discouraged by the heavy capital investment in R & D, production and automation facilities, high technology know-how, highly skilled engineers, advancement of IT, basically, distract new entrants from entering into the power-plant generation industry.

4.2.2 Rivalry Among Existing Firms

The power-plant industry has been dominated by a very few major market players, such as the ABB, General Electric, etc in the Malaysian environment. The key players have been awarded with major contracts in the energy generation business.

Strategic planning, innovation and heavy emphasis on R & D coupled with high technology (usually patented), fights for market share, market positioning and employ repositioning techniques and strategies in order to maintain or expand market shares.

Key players, such as Siemens, ABB, General Electric etc. have been contributing positively and aggressively towards nation-building, in terms of energy generation, in order to cope with the ever-growing demand for electricity.

4.2.3 Threat Of Substitute Products/Services

In the case of power-plant generation industry, there is virtually "NO" threat of substitute products/services, at the present moment. Using and building nuclear power-plant generator, may, in the future, posed a major threat
causing environmental damage. With the protection of environmentalism, less countries favor using nuclear energy, compared to other alternative forms of energy, such as, steam from coal, hydro, combined cycles, etc.

4.2.4 Bargaining Power Of Buyers

Buyers, in this case, refers to, TNB & the IPPs. Therefore, the number of power-plants ordered, size of capacity, contractual value, financing requirements/ facilities, after sales service, preventive and regular plant maintenance, supported by highly trained and competent engineers, contributed to the achievement of corporate objectives of Siemens, primarily, determined by the bargaining power of buyers. However, Siemens satisfy buyers’ needs and requirements by meeting buyers' unique technical specifications.

4.2.5 Bargaining Power Of Suppliers

The supplier of spare parts, inventory control, distribution plans, other production operations, managerial strategies have been developed so that outstanding market player, armed with ISO 9000 & ISO 14000 certification, obviously, enjoyed a strategic competitors' advantage over other smaller competitors. Therefore, Siemens being an established global supplier, enjoyed an international recognition through the achievement of international award/certification i.e. ISO 9000, 9001, 9002, 14000, 14001 etc.

4.3 Value Chain Model:

Value-creating Activities associated with the Differentiation Strategy. Description of a model illustrating Siemens Power plant generation in Malaysia, using Value-creating activities associated with the Differentiation Strategy.
4.3.1 Firm Infrastructure

Siemens AG possess a solid foundation in generating a wide range of facilities, to ensure the success and the continuity to remain as a major market player in building and supplying of power generation plants worldwide.

4.3.2 Human Resource Management

Employ only the most competent engineers, specializing in their respective fields to fill – up vacancies available throughout Siemens offices, on a regional basis. Continuous training programs have been designed to cater for the ever-changing needs and requirements of the most demanding customers of today. Engineers from different regions have come together to complete a project on a continuous, an ad hoc basis.

4.3.3 Technology Development

It takes such a long time, to ever generate a new form of technology, which is more superior to the present forms of energy generation. Right now, there is no announcement about the innovative form of energy creation by Siemens or their major competitors.

4.3.4 Procurement

Siemens created the Siemens Procurement and Logistics Services (SPLS) in order to out-compete their competitors. Overall, SPLS, will be able to cut costs, simplify the ordering process, reduced down-time, demand a better bargaining position, develop a much more conducive environment between supplier-buyer relationship, works well on a regional or even global basis, advancement in technology communications make it possible to enhance and simplify the buying-supplying functions.
4.3.5 Inbound Logistics

Siemens exercised superior handling of incoming raw materials in order to minimized damage and improve the quality of the final product. This is the commitment of Siemens achievement and is accredited with the ISO 9001, the International Standard for Quality Management, by DQS, the German Management Systems Registrar for Quality Environmental Management Systems in 1997. The Siemens SPLS, is another evidenced of the buying-in process.

4.3.6 Operations

The overall operational process is a complex one, with the engagement of computer software programs and the competent engineers, dedication, interpersonal skills, human relationship building, effective and efficient coordination, maintaining an harmonious relationship with suppliers, buyers, contractors, and even sub-contractors, makes it possible to enhance and to achieve planned departmental and corporate objectives.

4.3.7 Outbound Logistics

This is to ensure that accurate and responsive order processing procedures are met with precision in mind. The significance of rapid and timely product deliveries to customers are always with satisfaction.

4.3.8 Marketing and Sales

Siemens practices Regional marketing and sales function, this makes it possible to achieve their marketing objectives more realistically against their major rival, like ABB, GE, and other competitors, fighting for more market shares, maintaining and increasing market positioning, always require innovative business strategies, to fight for survival, expansion, and diversification, eventually, increasing the market value of the firm and its market price to their shareholders.
4.3.9 Service

This involves the extensive buyer training to assure high quality product installations. Complete field stocking of replacement spare parts, immediate after sales service is a pre-requisite to customer satisfaction to ensure the renewal of preventive maintenance servicing contracts, signed between buyers and Siemens. (Hitt., 1999)