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2.1 EXTERNAL ENVIRONMENT

The external environment played a vital role in the growth and profitability of the firm. The prevailing environment was very different from that of the past ten years. The local economic downturn and currency meltdown had accentuated the need for a careful evaluation of the external and internal environment of the company. The following analysis will help determine the status of the company with respect to market forces, and, at the same time, provide the necessary information for reviewing the reengineering exercise.

2.1.1 Structural Analysis of the Vacuum Switchgear Industry

The switchgear industry was relatively small, about six thousand executives and skilled workers. Generally, a firm in this industry would serve both as a supplier and customer to others in the industry. This mixed relationship meant that the information within the market was readily available. The growth of the support industry for switchgear manufactures in the mid-90's meant an easy search for reliable sub-contracting. The economic growth in the early 90's had made competition steeper.

Suppliers

A portion of the manufacturing was outsourced to a few major wiring contractors and suppliers of metal parts. Outsourcing had helped ABC in meeting deliveries at peak periods and reduced capital costs as some major manufacturing equipment were costly. However, outsourcing also had its set of problems. Suppliers were providing support not only to ABC
but also to most of its competitors. Alternative suppliers were not sought due to price and quality considerations. Sharing of suppliers posed several crucial problems; for example, during peak periods only major manufacturers received timely delivery. Thus far, ABC had been considered a major customer and to this end, it had certain advantage over the other competitors. In addition, engineering designs were no longer a company’s secret. For example, if one were to enter TL factory, a major supplier to ABC, the various panels of the major competitors could be seen lined up side by side. Hence, it was easy for ABC’s competitors to gain knowledge of its recent developments and improvements, and such information could be used against ABC during bidding and vice versa.

The sourcing of certain major components locally from a single supplier had resulted in dependency on supplier. In 1997, ABC’s vulnerability to single supplier sourcing was obvious from its failure to achieve its projected sales. Delays by a supplier who could not deliver the capacity that ABC required had caused ABC’s poor sales performance. Bonus cuts and reduced annual increments were a painful reminder to ABC to monitor its sub-contractors well. Such problems were anticipated long before this happened and ABC was warned of these fateful consequences. Moves were made by the Engineering and Sales dept., to distribute orders to one or two other reliable suppliers but this fell on deaf ears and no actions were taken to correct the situation. The lesson learnt was painful and Materials Dept. realised too late its inadequacy in monitoring the suppliers more closely. Inculcating close suppliers’ relationships had its benefits as the suppliers were obligated to cooperate with ABC to meet difficult deliveries.

*Potential Entrants*

Foreign competition from 1995 had increased from 4 to 16. Most of the new entrants were foreign joint venture partnerships that brought along with
them international quality standards. In the past, high entrant cost had posed a barrier for local companies as the business is capital intensive and development costs high. However, with such alliances, local firms were able to penetrate this market and caused ABC's sales and profit margins to fall substantially.

Substitute

Gas insulated switchgear (GIS) was fast becoming a substitute to vacuum switchgear. The switchgear industry had favoured gas to vacuum in that the former was more compact and maintenance-free. These advantages had caused the worldwide sales of GIS to increase at a higher rate than VCB. The local utility board had indicated a preference for it in their later tenders and ABC lost in the game as it had not yet developed this product.

Competitors

Until 1995, there were only two local companies and two foreign owned companies producing vacuum switchgear. Since then, another twelve other foreign companies had entered the Malaysian market. Growth in the last eight years had attracted many foreign investors who offered good value at low prices as a penetration strategy. In the face of stiff competition, ABC share of the market had declined and the profit margins were eroded. The cost of manufacturing escalated with increasing customers' demands as added features were not borne by the customers but the manufacturer.
2.1.2 Market Trends

From the foregoing analysis, we note the trend towards outsourcing resulting in sharing of suppliers/contractors with competitors, increasing customer demands as a result of technological development, intense competition and the threat of new substitutes. Other factors affecting the company included Government policies, Malaysia's economical downturn and the technological trends.

a. Government Policies

The fact that ABC had insufficient Bumiputra equity had a tremendous negative impact on its business growth. Policies imposed by TNB (vendor protection programme) and the Malaysian government, requiring a company with Bumiputra status to be registered with the Ministry of Finance had also severely affected ABC's local business ventures.

b. Economic Meltdown

Another factor that had severely impacted the future of local switchgear business was the downtrend of a business cycle and the country's currency crisis. However, in the export market, an upward trend was anticipated as ABC adopted more aggressive marketing strategy. ABC had budgeted for exhibitions and shows, overseas expenditure for sales force to contact agents, and establish new agencies to increase market coverage. ABC had planned to increase its sales in this sector by another 15% to bring it to 40% of the company's sales.

c. IT Trend

Switchgear houses within its panel components essential to the proper
functioning of the gear. In the past, the material cost for such components was small, 35% compared to the total switchgear cost. In recent years, the emerging trend was the automation of the control functions through information technological (IT) products. The total component cost for this automation product was 40%. Hence, there was a likely possibility that the automation suppliers may reverse the role of the switchgear suppliers and call the shots by being the main supplier, packaging the switchgear with their own automation system.

2.2 INTERNAL ENVIRONMENT

The demands of the new competitive landscape made it necessary for the top management of ABC to rethink its theory of the business. Critical to the managerial mindset is the view that a firm is a peculiar combination of varied resources, capabilities and core competencies that can be used to create a strategic market position. As such, it is important to identify these factors so as to further nurture and develop the company's potential. Understanding the company's external influences is not enough; the next step is to be well acquainted with the internal driving forces, and use this knowledge to position the company to be a market leader.

2.2.1 SWOT ANALYSIS of ABC

a. Strengths

_Dominance in local market_

As was mentioned earlier, ABC's earlier success was rooted in the _range of product lines_ that it marketed. The company was focussed in the electrical switchgear industry, selling a range of similar product lines.
During the peak, ABC supplied 75% of the local utility board's requirements.

*The only company with local research and development (R & D) team*

Added value to these product lines by the continually refinement of the R & D team meant a good product differentiation. Much investment has gone into R & D, in line with the company's strategy. It claimed to have the only R & D in Malaysia for this industry. In addition, a consultant from UK was employed to give the team additional technical support. In 1997, ABC management saw the need to accelerate new product development and a second R & D unit was set up. This created the necessary competition for the original unit to speed up development. In addition, overseas subsidiaries were encouraged to set up their local R & D units. The successful testing of 15 kV switchgear in late 1997 marked the success of the collaborative work of the Malaysian and Australia's R & D units. In view of the increasing independence from their old ties, ABC had initiated communications with universities such as Manchester University to provide the more advanced technical resources required.

*Advanced Manufacturing Facilities*

In line with the principle of comparative advantage, ABC had focussed on its core competencies, i.e., designing and manufacturing switchgears. High-tech manufacturing facilities as listed in Table 3 and test equipment ensured the production of quality products. In addition, the company achieved ISO9001 status in 1990 to provide international credibility.
Table 3. Advanced Manufacturing Facilities

- Manufacturing Resource Planning (MRP-II)
- CNC Steel & Copper Fabrication Machines
- CNC Laser Cutter
- Robotic Welder
- Cathodic ElectroDeposition (CED) Paint Line
- Cast Resin Insulator Plant

Good financial Standing

The financial standing of ABC was excellent; it was always cash rich and was able to pay its workers by mid month. There was never a problem with paying our suppliers, and planning budgets for capital expenditures.

b. Weaknesses

Operational Problems

Inadequate attention to operational issues resulted in the numerous petty problems of production, quality and delivery. Works Dept. had not followed the material list drawn up by the Engineering Dept. as they thought the inaccuracies therein would prevent them from achieving production targets. Instead they generated their own list which to some extent had helped with deliveries. This meant production had to expend more energy in monitoring their work and this
had duplicated work. Oftentimes, production scheduling was inaccurate as orders received were invariably with unrealistic deliveries and hence inadequate production time was allotted.

Lack of co-operation between departments

Lack of cooperation and "turf wars" drained workers of the energy required to produce good work and supervisor's negligence added to the poor quality of work. Although teamwork was encouraged within the department, the blame on any delays was always on the other departments.

Insufficient Communications

It was noted that the availability of information was largely dependent on the nature of the worker (whether he was an extrovert or an introvert) and the category of work he performed. Employees with supervisory positions which require more interdepartmental interactions were better informed. Factory workers were task oriented and conducted their work in accordance to what had been scheduled for them and no more than that.

Junior and middle managers felt that strategic plans were not communicated to them and some had to obtain information from the office grapevine. It is apparent that insufficiency of communication had caused such a diverse set of thinking between top and junior management. For example, top management was always pushing for earlier deliveries while Works executives always came up with lots of justifications on delays.
Inadequate local market influence

Insufficient marketing influence caused ABC’s sales to drop as its existing customers to foreign manufacturers who lavishly entertained them. Heavy dependence on ATC until 1995 brought about a complacent and arrogant attitude towards other customers. ABC was painfully aware of its heavy reliance on ATC, and in the early 90’s had ventured into the international arena for export opportunities. Furthermore, the Salesforce was always too complacent and did not strive hard to maintain its customers as it was overconfident of the fact that the product could sell itself due to past successes.

Ineffective Contracts negotiation

Ineffective Contracts negotiation resulted in lost of opportunities to obtain variation orders for customer changes in original sales offer. The lack of accountability resulted in messy contracts handling and negligence. Furthermore, incorrect materials’ requisition resulted in costly last minute air-freight. Delays in material deliveries ultimately delayed production and scheduled customer tests. At times, ABC had to pay liquidity damages when Production failed to meet deliveries and Contracts team was not able to renegotiate for extension of deliveries.

c. Opportunities

R&D Subsidy

R & D subsidy by the Malaysian government provided the drive to keep the momentum of new product development, which is a very costly venture.
R & D network

The company's global R & D network also put it in an advantageous position as it could tap the resources not available locally.

Figure 2. Global R & D network

CEO

R&D M'sia  R&D China

R&D Aust  R&D UK

Creditable reputation

ABC Co.'s successes in the last 10 years gave it creditable references from many varied customers. Certain customers remained loyal to ABC and as the market expanded.

Increased export opportunities

The currency exchange slide in late 1997 resulted in more competitive pricing for ABC in these exports markets; helping to secure more contracts. As most of the parts are locally manufactured and the percentage of local content was 90%, the prices offered by ABC were still very competitive even though the prices of raw materials and imported parts had increased tremendously.

There was a pressing need to be disciplined and committed to rise above the intense competition and complexities of international business. The plant in South Africa was sold off after two years of operations. With lessons learnt from this initial venture, the second attempt in international
business was in China. This was a resounding success. ABC was also looking into possibilities of opening up a factory in India.

d. Threats

*Shorter Product Lifecycle*

It can be concluded that the product lifecycle of ABC had been shortened considerably to approximately two years in view of advancement of technological which shorten development time. Computer modelling and simulation allowed developers to accurately define their tolerances and generate a more accurate design before building the prototype. Sophisticated computer aided copiers could easily make duplicates from samples of competitors' design. The deterring high R & D cost was no longer a protection against new entrants as local businesses thrived on reverse engineering, copying new design with amazing speed. One such incident is the new design of shrouds that ABC displayed during the early part of 1997 electrical exhibition. In the following year, a new entrant displayed a similar sample and it was the joke of the exhibition.

*Globalisation*

Increasing foreign competition as a result of globalisation became an unbearable threat as ABC saw its customer base shrinking. As existing ABC customers were exposed to different makes, they acquire more knowledge of the products through comparisons of the various makes. With their new knowledge, they demanded for features that competitors offered. In complying with these demands, the manufacturer had to bear increased in manufacturing costs. ABC pre-empted competition by focusing on technological investments.
Increasing cost of labour

Increasing cost of local workforce with no gain in productivity pushed up the cost of production and reduced profit margins. Local workers were more enthralled by the high pay and job hopped without having gained the expertise. Lack of skilled labour and high costs resulted in an unhealthy dependency on foreign workers. Such workers were here to make the bucks and integration into the corporate culture was difficult. There was a time when ABC had a few camps of workers, Bangladeshis, Indians and Indonesians and jealousy erupted when one had more overtime than the others. Furthermore, they were contract workers and did not have the interests of the company in mind. All such factors compounded the quality problems at the production line.

Changing demand trends

Growing local demand for substitute gas product posed a threat to ABC although steps were underway to develop the product locally.

Local trend in substation automation was an emerging concern. In the past, the switchgear manufacturer played a dominant role in the supply of switchgear. With automation, a complementary product, this would change the rules of the switchgear business. As 40% of the pricing of the switchgear comprises this product, the roles of main player can be easily reversed. ABC had considered this potential threat and conducted a study on the viability of strategic alliance or partnership with an automation company to maintain its foothold in the industry.
| Strengths                          | Dominance in local market                           |
|                                  | The only company with local R&D                    |
|                                  | Advanced Manufacturing Facilities                   |
|                                  | Good Financial Standing                            |
| Weaknesses                       | Operational Problems                               |
|                                  | Lack of Cooperation amongst departments            |
|                                  | Insufficient Communications                        |
|                                  | Inadequate market influence                        |
|                                  | Ineffective Contracts Negotiation                  |
| Opportunities                    | R&D Subsidy by local government                    |
|                                  | R&D network                                        |
|                                  | Credible reputation                                |
|                                  | Increased export opportunities                     |
| Threats                          | Shorter Product Lifecycle                          |
|                                  | Globalisation                                      |
|                                  | Increasing Labour Cost                             |
|                                  | Changing demand trends                             |