Introduction

Background

In 1992, 35% of U.S. business firms failed with association. (Statistics of the 1985-86 Economic Report of the U.S. President, 1982) While social costs were minimized, the loss to society was incomparably much.

A company must concern itself with not just the present but also the future. The company must keep a watchful eye on the future to determine if the present is just the normal and what changes might be expected in the future.

Purpose of study

A Brief Literature Review

Methodology

And is the topic in an area that is rapidly influenced by the situation world economy. The increasing need to see competitive forces making our past business models ineffective. Policy makers and business managers need to re-examine the validity of their business assumptions. Organizations have to take steps to improve their competitive posture by reorienting, restructuring, and reevaluating their businesses. While there are numerous strategic options for aligning internal alignment with the changing environment, the emergent global market suggests that for most manufacturers, organizations, restructuring and reevaluation of the mechanisms may have a firm align its cost, structure with these of the
Introduction

Background

In 1991, 88,215 US business firms failed with associated liabilities of US$107.9b (Economic Report of the US President, 1992). When social costs of lost jobs were included, the loss to society was indeed immense.

Malaysian companies had a lot to learn from these happenings, more so now than ever before in view of its currency crisis and economic meltdown. Corporations would definitely be tested during this period of turbulence. Asian businesses had been soaring over the past ten years, but unfortunately, many companies had taken advantage of the opportunities by wheeling and dealing. There were minimal corporate strategies to guide their paths and most companies were just opportunists. These companies are widely diversified; being driven by their opportunistic mode of operation. When the economic trend was good, the problems associated with such an approach were concealed. However, problems continually surfaced in the current financial and economic turmoil.

Asia is on the brink of a new era that is heavily influenced by the changing world economy. We are starting to see competitive forces making our past business practices ineffective. Policy makers and business strategists need to re-examine the validity of their business assumptions. Organisations have to take steps to improve their competitive posture by reorienting, restructuring and rejuvenating their businesses. While there are numerous strategic options for attaining better alignment with the changing environment, the emergent global market suggests that for most manufacturing organisations, restructuring and reorientation of the busisness may help a firm align its cost structure with those of its
competitors. Similarly, investment in technology and research and development may help an organisation align its product offering with the changing demands of the environment. Firms need also to invest in its people, their one biggest asset to be able to satisfy the rapidly changing customer demands.

**Purpose of Study**

In this study, a local manufacturing company is taken as a case study to explore its efforts to combat the onslaught of globalisation, changing technology, and knowledge-based competition through business process reengineering.

The information presented in this research is compiled from the documentation on reengineering in a local company, ABC. The company and the personalities mentioned have been disguised to protect the interest of the relevant parties. ABC represents a typical medium-sized private manufacturing company managed by Malaysians. It is sufficiently large to warrant an in-depth study on management and business related problems. The constraints and problems in this company typify that of other local companies.

**A Brief Literature Review**

**The beginnings**

Reengineering was a driving force for the American company in the early 90's. Hammer and Champy laid out the reasons for reengineering and provided the practical know-how to engineer such a change. Reengineering was considered a new and systematic approach to structure and manage work. It challenges the basic business assumptions and embraces change. Hammer defines reengineering as starting over. It
means abandoning long established procedures and looking afresh at the work required to create a company's product or services and deliver value to the customer. A fundamental rethinking and radical redesign of business processes are needed to achieve dramatic improvements in critical contemporary measures of performance such as cost, quality, speed and service.

Focus

The main focus is the customer. Companies such as AT &T and Pacific Bell have reengineered the processes used to implement telephone service to new customers. The result has been beneficial for both employees and customers. Customer service time was reduced by half. Reengineering does not refer to minor modification of current practices. Instead, it means starting with a clean slate approach, identifying the way things can be done best, right now.

Step-by-step Procedures

The first step is to identify the key business processes. The next step is to identify performance measures in terms of customer satisfaction and to examine current processes to meet these measures. Ultimately, the customer demands timely delivery of quality products or services. Internal strife should not detract the company from this focus and rewards should be designed to motivate staff in this direction. The third step is to reengineer the processes by organising work around the processes rather than around functions or departments. Work is simplified by combining related tasks and eliminating any elements that do not add customer value. Finally, the redesigned process is implemented and all activities undergo a continuing evaluation. As technology, competitors, and customers change over time, work processes are re-examined continually.
Essentials of reengineering

Reengineering has been not only a great success but also a great failure. Research by Hall, Rosenthal and Wade in 1993, on more than 100 companies had revealed the difficulties of redesigning and the failures to achieve business impacts. Their study identified two factors, breadth and depth, crucial to reengineering. Adopting a reengineering approach that is either too narrow or too broad an approach results in many problems. A diagnostic phase is essential to the company's ability to deliver value to the customer and the bottom-line. Also important is to maintain a focus in core areas that fall short of customer expectations. The restructuring of key drivers of behaviour is essential to success.

The six depth levers or organisational elements are roles and responsibilities, measurements and incentives, organisational structure, informational technology, shared values and skills development. When these levers are applied properly, a reengineering exercise may yield more fruitful results.

One of the confident predictions of the "Management of the Nineties" programme conducted by the Massachusetts Institute of Technology, Sloan School of Management, was that we were entering an age of increasing turbulence. There is a need to deal with steadily increasing volume, complexity and pace of change. Despite having poured in more cash and effort into reengineering and other similar initiatives, companies seem to suffer from a number of common problems at the implementation stage. Many realised too late that they had over-emphasised the technical and operational aspects of their projects at the expense of people. More often than not, failure to handle the human dimension of change has been the undoing of these projects. The typical difficulties faced by companies
are inadequate sponsorship, incompatible change objectives to corporate culture, poor communications and middle management resistance.

Failures of Reengineering

The failure rate as recorded by KPMG Management Consulting in 1993 for business process reengineering (BPR) programmes was 70%, though recent research carried out by Business Intelligence in 1996 suggested as many as 90% failed to produce breakthrough results. Besides, a failure to meet the fundamental conditions of managing change, there are many traps for the unwary companies. In KPMG's survey, 250 correspondents surveyed, most were running four or more different change initiatives. The aspect sorely left out in reengineering deals with a spectrum of practical issues ranging from cultural barriers, the effort to secure the commitment of senior executives and middle managers, inadequate performance measurements and management models. As we move from a supply constraint production approach to one of demand derived, we do not want a rigid organisation but an adaptive one, which means a great deal of ambiguity and uncertainty on the organisational basis. This requires a total review of the organisational culture. A new management mindset and a reward and recognition system will motivate the people.

Methodology

Personal interviews were conducted to assess the outcome of the reengineering exercise. Critique and recommendations in the later section of this paper were based on the findings of these interviews. A sample population of 10% was taken, ranging from executive staff to production workers. From Engineering dept, eight persons were interviewed, Materials Dept. three, Sales and Marketing three, Finance two, Works twenty two, and Research and Development two.
1.0 Company Profile

ARC established itself very quickly to become the largest manufacturer of automation products in Malaysia and one of the largest industrial electrical equipment manufacturers in the region of Malaysia and Singapore. It was a Malaysian company operating at the international level, serving both the domestic and export markets. It was a reputable supplier of sophisticated electrical switchgears and systems to the power utilities and industrial sectors. As part of a large engineering-oriented group, it offered extensive experience in the design, manufacture, supply, and installation of switchgear and systems for power distribution and control centers.

1.1 Mission Statement

1.2 Organisational Structure

1.3 Manufacturing Facilities

1.4 Company Performance

1.5 Product Lines

1.6 Organisation Culture
1.0 Company Profile

ABC established in 1965, grew quickly to become the largest manufacturer of switchgear in Malaysia and one of the latest industrial electrical equipment distributors in Malaysia and Singapore. It was a Malaysian company but operating at the international level, serving both the domestic and export markets. It was a reputable supplier of sophisticated electrical switchgear and systems to the power utilities and industrial sectors. As part of a large engineering oriented group, it offered extensive experience in the design, manufacture, supply and installation of equipment and systems for power distribution and motor controls.

1.1 Mission Statement

Mission Statement

Achieving excellence through quality products and customer satisfaction.

The CEO and the senior managers drafted the mission statement back in 1986. Although the vision statement was valid, it lacked the power to drive the people to commitment. Few remembered it as they could not identify with it. References to this were few and far between although the CEO and GM made occasional mention. The workers therefore lacked the necessary conviction to share in the same vision. The general opinion was that such a western approach was hodge podge and a sheer waste of time. The vision statement was written because it was the latest fad or simply to satisfy the shareholders.
1.2 Organisational Structure

Total employment in ABC at the end of 1997 was 400, including 150 engineering personnel. A team of well-qualified Malaysian engineers managed the company.

Figure 1. Organisation Structure:

CEO Mr Roger (ABC Co.)

GM (En. Kasim) Malaysia (ABC)

GM UK (ABX)

GM Australia (ABY)

GM China (ABD)

Departments:

Finance & Admin. (Mr Supra)

Sales & Marketing (Earl)

Engineering (Mr Yong)

Works (Alex)

Materials (Sunny)

ABC Co. was led by a Chief Executive Officer (CEO), Roger, to whom the general managers of ABC and the various subsidiaries, ABD, ABX & ABY report. From his base and head office in Malaysia, the CEO conducted his businesses. A General Manager who was assisted by several departmental heads, i.e., Finance and Administration, Sales and Marketing, Material, Engineering and Works, managed each regional location.

In ABC, En. Kasim the general manager, played the role of an integrator, resolving interdepartmental conflict and ensuring that the individual departments accomplished targetted plans in line with the company’s mission.
1.3 Manufacturing Facilities

ABC's manufacturing plant in Petaling Jaya offered a comprehensive engineering service, co-ordinating the initial conceptual design, material selection and procurement, manufacture and testing. A second major site, located in Shah Alam, housed the sheet metal fabrication, paint shop and sub-contractors.

Over the years, ABC had accumulated a wealth of technological know-how from the various companies that offered manufacturing license to it. Up till recently, ABC maintained technical collaboration agreement with a Japanese company to further accelerate the process of technology assimilation. Every year, substantial sums of money were committed to R & D projects so as to ensure that the company's products remain at the forefront of technology. Central to its success were the high technological manufacturing facilities and test equipment employed such as laser cutting machine, robotic welding machine, electro-dipping paint shop and test equipment such as 400kV impulse test set, partial discharge tests and 4000A primary current injector. Its investment in technology reduced its cost structure and made it globally competitive.

1.4 Company Performance

Sales and Profits

ABC had been generating profitable growth for about nine years since 1987. However, in 1996-7, profits were eroded and sales decline as seen in table 1.
Table 1. Sales and Profit Margins

<table>
<thead>
<tr>
<th>Year</th>
<th>92</th>
<th>93</th>
<th>94</th>
<th>95</th>
<th>96</th>
<th>97</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales (RMm)</td>
<td>124</td>
<td>135</td>
<td>140</td>
<td>175</td>
<td>161</td>
<td>152</td>
</tr>
<tr>
<td>PBIT*(RMm)</td>
<td>23</td>
<td>30</td>
<td>35</td>
<td>38</td>
<td>35</td>
<td>30</td>
</tr>
</tbody>
</table>

*PBIT – Profit before income tax

Business Profile

ABC's major customer was the local utility board, ATC, which accounted for 35% of the sales orders while local sectors only accounted for 17%. The remaining sales were derived from export and Oil & Gas sales (23%) and international operations (25%).

It can be seen that ABC was heavily dependent on one big customer and this was a source a potential problem as could be seen in later years. ATC became more stringent in demands due to increased competition and a lot of marketing effort was expended to keep the customer satisfied.

1.5 Product Lines

ABC offered a wide range of standard and custom-built switch-gears to meet customer need. Major product lines are listed in Table 2.

Table 2. Product Groups

<table>
<thead>
<tr>
<th>PRODUCT GROUPS</th>
<th>SALES Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Low Voltage switchgear,</td>
<td>5 %</td>
</tr>
<tr>
<td>2 Busduct</td>
<td>3 %</td>
</tr>
<tr>
<td>3 Vacuum switchgears</td>
<td>80%</td>
</tr>
<tr>
<td>4 12kV Gas RMU (ring main unit)</td>
<td>12 %</td>
</tr>
</tbody>
</table>
1.6 Organisational Culture

The work-oriented culture in ABC meant that the focus of energies was on the work. Some workers were driven by a consistently tight schedule resulting from an unequal distribution of work and also, the nature and scope of the work.

A consultant was contracted to conduct a survey on the organisational health of the company in late 1997. The study revealed that senior managers of department differed greatly in their perception of the company compared to junior managers and senior executives. However, the middle managers tended to be in between both the senior and junior managers. This diversity of thinking contributed significantly to the internal conflicts. Senior managers were of the opinion that the company accepted mediocrity and hence, had slacked in productivity and quality. The junior managers thought that the pace that ABC kept was too hectic and people were pressured and morale low. The middle managers thought that the sales culture was predominant and those in the Sales dept were somehow favoured and therefore, less pressured to perform. Although the foregoing findings showed that the conflict cut deeper as the survey showed that the heads of department were parochial.

The consultants gave ABC a clean bill of health and the reported stated no severe problems or critical issues that needed immediate attention. Possibly, what was needed most was a culture of listening and tolerance which senior management must actively participate in so as to gain the overall change effect.