



**UNIVERSITI UTARA MALAYSIA**

**PEPERIKSAAN AKHIR  
SEMESTER PERTAMA SESI 2003/2004**

**KOD / NAMA KURSUS** : PQ3173 / SEMINAR PENGURUSAN OPERASI  
**TARIKH** : 29 hb. SEPTEMBER 2003  
**MASA** : 2.30 petang – 5.00 petang ( 2 ½ jam )  
**TEMPAT** : DP 1/7

**ARAHAN :**

1. Baca arahan dengan teliti
2. Kertas soalan ini mengandungi 3 (TIGA) soalan di dalam 11 (SEBELAS) halaman bercetak
3. Calon dikehendaki menjawab **SEMUA** soalan yang dikemukakan.
4. Semua jawapan hendaklah ditulis di dalam kertas jawapan yang disediakan.

**NO MATRIK:** \_\_\_\_\_

( dengan perkataan )

( dengan angka )

**NO KAD PENGENALAN :**

**NAMA PENSYARAH :** \_\_\_\_\_

**KUMPULAN :**

**NOMBOR MEJA:**

**JANGAN BUKA KERTAS SOALAN INI  
SEHINGGA DIBERI ARAHAN**

**Anda dikehendaki menjawab semua soalan di dalam kertas jawapan yang disediakan.**

1. Globalisasi adalah isu yang perlu ditangani oleh setiap organisasi masa kini untuk terus bersaing di dalam pasaran masa depan. Globalisasi diperkirakan akan menyebabkan proses persempadanan kehilangan fungsi tradisinya yang bakal mewajarkan aktiviti-aktiviti penyeberangan sempadan (***cross-border activities***) menjadi satu medan yang bakal memberikan kelebihan kepada organisasi-organisasi yang lebih berdaya saing.

Apakah yang dimaksudkan dengan organisasi-organisasi ini? Menurut Allen *et. al.* (1998), setiap organisasi yang berhasrat untuk bersaing di masa depan mestilah memiliki ciri-ciri tertentu berteraskan falsafah Organisasi Bertaraf Dunia (***World Class Organization***). Biarpun falsafah ini hanyalah satu destinasi, namun tanpa lakaran garis-garis efektif sebagai panduan, perjalanan menuju masa depan akan terus dibelenggu kekaburan.

**Soalan:**

- a) Sila nyatakan dengan ringkas 5 ciri-ciri penting bagi Organisasi Bertaraf Dunia (***World Class Organization***)? *(10 markah)*
- b) Huraikan dengan jelas salah satu daripada ciri-ciri tersebut berdasarkan garis panduan berikut:
  - i) Definisi dan satu contoh yang bersesuaian bagi menyokong penjelasan anda. *(5 markah)*
  - ii) Perbincangan bagaimana untuk mengeksploitasikan penguasaannya bagi menjamin peningkatan keberkesanan operasi. *(10 markah)*

2. **Program 6 Sigma** telah dikenalpasti sebagai salah satu program yang berkesan untuk mengawal kualiti di dalam proses pembuatan. Di antara elemen penting di dalam pelaksanaan **Program 6 Sigma** ini ialah keseimbangan di dalam penentuan spesifikasi rekabentuk dan juga penetapan variasi proses yang bersesuaian.

Bincangkan tentang program ini berdasarkan garis panduan di bawah:

- a. Pengenalan kepada **Program 6 Sigma**. (Sila sertakan contoh syarikat-syarikat yang berjaya dalam pelaksanaannya) *(5 markah)*
- b. Huraian maksud bagi kedua-dua elemen di atas dan penerangan tentang perubahan variasi proses daripada aplikasi **3 Sigma** ke **6 Sigma**. (Sila sertakan gambarajah-gambarajah yang berkaitan.) *(5 markah)*
- c. Perbincangan tentang satu contoh aplikasi **Program 6 Sigma** ke atas operasi sesebuah organisasi. *(15 markah)*

3. Soalan-soalan berikut adalah merujuk kepada Kajian Kes tentang Rover.
- a) Adakah perlu bagi sesebuah organisasi menunggu untuk melalui sesuatu krisis sebelum perubahan besar di dalam operasi dilakukan seperti yang berlaku di dalam Rover?  
(15 markah)
  - b) Sejauh manakah dan kenapa Rover telah tidak menjalankan tanggungjawab etik (ethical obligations) terhadap pekerjaanya?  
(10 markah)
  - c) Apakah elemen-elemen yang penting yang terkandung di dalam 'New Deal' yang dapat memberikan kelebihan persaingan yang lebih baik?  
(10 markah)
  - d) Apakah tindakan yang boleh, atau sepatutnya, Rover lakukan selepas ini?  
(15 markah)

## Kajian Kes

### Rover

Sara Mountney, Rob Lummis and Stuart Chambers  
Case date 1996

#### INTRODUCTION

The Rover Group, owned by BMW, is the largest manufacturer of motor vehicles in the UK. It employs just under 40,000 people (known as associates) on sites in the West Midlands and Oxford. The Company is continuously improving by using Total Quality Management, employee empowerment and cellular manufacturing techniques. It also introduced its New Deal Programme in 1992 to facilitate a flexible labour force. These initiatives have developed as a consequence of benchmarking Japanese car manufacturers and a 15-year partnership with Honda which ended in 1994. Also in 1994, Rover was awarded the British section of the European Foundation of Quality Awards. The esteem in which the company is held may be illustrated by this quotation:

*'Sir, let me reassure you that Sir Andrew Wood, Britain's ambassador in Moscow, does not merely "make do" with a Range Rover as opposed to a Rolls-Royce in that city. Anyone who has seen the gleaming green object in question outside the Foreign Office ... would have no doubt this was not only the best vehicle for the job but also an outstanding achievement for Britain ...'*<sup>1</sup>

However, this has not always been the case - a fact which makes Rover's achievements particularly inspiring. In the late 1970s, Rover, or British Leyland (BL) as it was then known, was on the point of bankruptcy.

#### SURVIVAL IN THE 1970's

*'If British Leyland fails to succeed it will have the most dire effect on jobs and investment prospects, not to mention the reputation of Britain and British jobs overseas.'*

*'The question you will ask is "Can you really hope to influence such a situation?" I don't know. The task is enormous; some people would even say impossible. But I am going to try because I believe that British Leyland does have a future. It is a company, which has talent at all levels. Talent, that can, and must be fully utilised. Given the right support from all in the company and government - and that could mean facing up to some tough decisions in the future - it is still possible to restore its growth and realize its full potential'*<sup>2</sup>

(Sir Michael Edwardes, Chairman of BL 1977-1982, shortly after his appointment)

The British Leyland of the mid-1970s was a vast, centralised organisation of around 120 000 employees. It was largely a state-owned company formed from a number of motor manufacturers in 1968. The product range encompassed trucks (Leyland), cars (Austin, Morris, Triumph) and luxury cars (Jaguar, Rover). The problems, which beset the company, were numerous: the company was renowned for poor products, poor quality, and poor employee relations. For example, in 1977 a toolmakers' strike had cost the company 25 per cent of its annual production. Such events had made the company notorious in the business world.

In addition to its internal problems, a number of external factors were also threatening the future of the company. The industry itself was heavily unionised. Also, the 'second industrial revolution' of the 1980s was dawning, resulting in new technology such as robotics, new materials and new processes. This situation meant that the company had to change to survive.

Following the appointment of Sir Michael Edwardes as Chairman in 1977, a recovery plan was put into action to ensure the survival of the company. This included a joint enterprise with Honda, whom the company began benchmarking in 1979. This led to Honda cars being supplied in kit form and assembled at the Cowley (Oxford) plant as the Triumph Acclaim. This product was a suitable stopgap while BL began to develop the partnership with Honda. The partnership gave the company the ability to develop a full range of products something, which previously it had been unable to do due to the lack of funds to support this type of work.

The management culture during that era is now seen, retrospectively, as being exceptionally confrontational and aggressive. Yet it was necessary at the time to ensure the company's survival.

### **IMPROVEMENT IN THE 1980S**

Under the focused leadership of Sir Michael Edwardes and Harold Musgrove from 1982, BL made steps towards its survival. During the 1980s, various political changes also took place, which helped to stabilise the industrial relations problems, such as the Industrial Relations Act, which made Trade Unions more answerable to law.

Other initiatives were also taking place during this period. Total Quality Management was implemented from 1986, leading to greater employee involvement. At the same time, the results of an employee attitude survey also drew attention to the issue of employee involvement. Sir Graham Day, Chairman

from 1986, instigated *Roverisation*, a process which aimed to introduce quality products aspiring to the perceived upmarket image of the Rover.

### **TQM (Total Quality Management)**

Initial TQM training, was carried out by consultants at board level, but from then on the initiative was wholly owned by the company. TQM training cascaded down through the whole organisational structure, a process which took five years. The main elements of the TQM programme were and continue to be as follows:

- concentration on prevention rather than detection of quality problems;
- right first time approach,
- everybody responsible;
- management led;
- company wide;
- measurement and reduction of cost of quality;
- continuous improvement.

### **Employee involvement**

When the company began working with Honda in 1979, it initially concentrated its attention on the technical processes. However it was soon realised that benefits could be gained by benchmarking Honda's relationship with its people as well. Honda was a demanding partner but also very valuable in terms of its business processes.

The breakthrough began in 1985 with a visit to a Honda plant in Marysville, Ohio. It was there that senior management saw at first hand Japanese techniques and employee relations transposed to a western culture. An employee attitude survey, *Viewpoint*, was launched in 1986 with 10 per cent random sample of the labour force participating. Some negative opinions were expressed:

- management is not leading its workforce correctly
- communication is poor
- there is little chance for involvement in the company
- there aren't opportunities to train and develop.

Rover's hypothesis was that people wanted to be respected, recognised, valued, treated individually; listened to, and be part of the same team. The employees also cared about the company - it was important to them. The challenge was to unleash this pent-up motivation. The reason why Rover decided to pursue the issue of employee involvement was because it was felt that people could be its competitive advantage. There were diminishing opportunities to strongly differentiate through the products, as a new innovation would soon be followed by something similar from a competitor. In terms of technology, all car manufacturers used similar production techniques and all were reducing their cost-base. Rover thus concluded that their major competitive advantage lay with the labour force, a fact that the Japanese (the leading car manufacturers) clearly knew and utilised, as demonstrated by this famous quotation by Konosuke Matsushita in 1985<sup>3</sup>:

*'We are going to win and the industrial West is going to lose out - there is nothing much you can do about it, because the reasons for your failure are within yourselves. For you, the essence of management is getting the ideas out of the heads of bosses into the hands of labour. For us, the core of management is precisely the art of mobilising and pulling together the intellectual resources of all employees in the service of the firm. Only by drawing on the combined brainpower of all its employees can a firm face up to the turbulence and constraints of today's environment.'*

The *Success Through People* initiative was launched in 1989, with the objective to create and sustain an environment in which everyone would willingly give his or her best contribution. The main areas of the initiative were to focus on individuals, instigate leadership from line management, ensure personal development and involve everybody. The aim was to move towards a more delegated environment and to empower employees within their range of skills, based on a motivational vision, shared values and common objectives. Rover's company vision was to be internationally renowned for delivering extraordinary customer satisfaction.

In early 1991, the company underwent a structural reorganisation to support it in to achieving these objectives. The culture and processes of the business were analysed, with the new structure resulting directly from this. The organisation was split into business units with individual managing directors. This emphasized the business aspects of the company and focused on the product and processes rather than functions. The structure itself was flat, with broader roles within the organisation.

## **THE NEW THREAT IN THE 1990S**

The application of Total Quality principles began to change the style of the business and the company began to realise its potential. By 1988, the

government had sold its shareholding to British Aerospace, developed a range of vehicles with Honda and sold the Jaguar and Leyland businesses. In 1991, George Simpson succeeded Sir Graham Day as Chairman and continued to consolidate the *Roverisation* programme.

However, a new threat was emerging which made Rover management realise that the transformation of the company over the past decade would not necessarily guarantee its survival. The new threat came from transplant factories being built in the UK by competitors (Nissan, Toyota and Honda). A survey in the US<sup>4</sup> had shown that transplant factories there had provided extra capacity for 1.72 million units, and resulted in the closure of 1.82 million units of US-owned capacity. Rover carried out its own survey based in the UK and Europe and concluded that they faced a similar threat.

### THE NEW DEAL

The New Deal (between management, employees and unions) was signed in April 1992 following six months of negotiations. The aim was to create a single status labour force, which was flexible to adapt to future changes:

'We need a workforce distinguished only by individual or team contribution to the company'

These are the key issues involved in the New Deal:

- *Single Status Company.* The only distinction between people is their contribution. In practice, ending the artificial distinction between 'hourly paid' and 'staff' employees, such as removing the need for hourly staff to clock in and paying all employees by credit transfer achieved this. A common sick pay scheme, regular health checks and voluntary workwear were introduced. No employees were laid off but transferred to other duties or involved in training and development.
- *Flexibility.* All employees were flexible in their job according to their skills. Teams became accountable for the quality of their work, becoming responsible for routine maintenance and housekeeping, waste disposal, plant or office layout and equipment, improvements to processes, cost reduction, work allocation, job rotation, training and materials control. This introduced Total Productive Maintenance (TPM) procedures.
- *Continuous Improvement.* All company members were to participate in continuous improvement, by participating in suggestion schemes, discussion groups and quality action teams. The aim of this was to eliminate waste, increase efficiency and improve performance and quality.

- *Training.* All employees were given the opportunity to, and expected to participate in, training and development to increase their range of skills and knowledge.
- *Security of Employment.* This was one of the major issues of the New Deal, as it was believed that security was needed to enable empowerment. All Rover employees have permanent employment providing they wish to stay with the company. In practice, this is only achievable if employees are prepared to be flexible and take up opportunities for retraining and development. Manpower reduction is achieved through retraining and redeployment, natural wastage, voluntary severance and early retirement.
- *Commitment to Communication.* All employees receive and participate in open and honest two-way communication, with a greater emphasis on team briefings.
- *Rover and the Unions.* A Joint Negotiating Committee was formed from the trade unions represented at the company - a move to 'single table' bargaining. Communication between Rover and the unions was enhanced to give the unions a greater view of company plans performance. The disputes procedure was strengthened to allow unresolved disputes to be transferred to arbitration, with no disputes to be recognised outside this procedure.

## **ROVER TODAY**

The culture of the company has changed from a situation where management pushes for change to where change is supported by the people. As this evolves further, it is intended that the situation should arise where people push management for change. Associate involvement continues to be a key issue in the company.

To support the continuous improvement and empowerment initiatives, Rover Learning Business was launched in 1990 to provide an environment where people can develop their skills and change their attitudes. Rover Learning Business offered several initiatives at the launch. These have continued to develop and are ongoing. Some of them are detailed as follows:

- Rover Employee Assisted Learning (REAL) awards a bursary of £100 to each associate to undertake a non-vocational accredited course at an accredited institution. Examples of courses undertaken, range from pottery to sports coaching. The philosophy behind this scheme was to encourage people back to learning. A tuition refund scheme also exists which allows the refund of fees on vocational courses.

- The personal development file is an optional file, which forms a record of achievement, which is used for personal development planning and reviewing with a supervisor.
- Performance and development review. This form replaced the old staff appraisal form and is used by all employees. It avoids rating scales and aims to be forward-looking instead, concentrating on objectives for the individual both personally and in the workplace.
- Training of Total Quality leaders, a continuation of the Total Quality initiatives.
- Educational courses at all levels run in conjunction with Warwick University.

Rover also recognised the need to attract young people into engineering in general and Rover specifically. Education partnerships were set up in the local community to give publicity to the industry. Some of the features of this scheme are teacher placements, rooms in local schools (Rover Rooms) and Skills Clubs for young people.

## CONCLUSION

During the 1980s, Rover's vision was to be 'better than BMW'. In February 1994, Rover was bought by BMW. John Towers also became Chairman of Rover in 1994. The success of the initiatives, and indeed Rover's transformation, may be measured by these sample answers in the Viewpoint survey:

**Table 43.1 Contrast of viewpoint survey results - 1988 and 1992**

<i>Opinion</i>	1988	1992
Managers communicate effectively with employees	Disagree	Agree
Managers provide effective leadership	Disagree	Agree
My manager involves me in making Rover a better company	Disagree	Agree
Managers do not trust their people	Agree	Disagree
My work makes poor use of my abilities	Agree	Disagree
There are good opportunities to train for a better job	Disagree	Agree
What happens in my work is important to me	Agree	Agree

These quantitative results also reflect a more recent change:

	% Agree		
	1990	1992	1994
Rover a better place to work	48	54	61
Feel secure at Rover	36	41	67

## References

<sup>1</sup>Letters to the Editor, *Financial Times*, 15 November 1995.

<sup>2</sup>Edwardes, M. E. (1983), *Back from the Brink*, Collins.

<sup>3</sup>Slack *et al.* (1995), *Operations Management*, Pitman Publishing.

<sup>4</sup>Womack, James, P. (1990), *The Machine that Changed the World*, Macmillan.