CHAPTER 4

IMPROVING PRODUCTIVITY THROUGH FLEXIBILITY

4.1. Introduction

As seen in the previous chapters there are a number of ways to improve productivity - some have been more successful than others. A great deal has been written about them, they have been thoroughly researched, implemented and recorded.

It appears that the 1980s has delivered an additional factor that could improve productivity, namely flexibility.

In this chapter this relatively unknown and unresearched productivity improvement method, flexibility, is discussed in detail.

(i) <u>Definition of flexibility</u>

Wickens (1987, p 44) defined flexibility as "expanding all jobs as much as possible and by developing the capabilities of all employees to the greatest extent compatible with efficiency and effectiveness". It certainly did not mean moving people rapidly from section to section, for that would have detracted from team working.

Further implications of flexibility can be seen

in the 1987 agreement Nissan concluded with the Amalgamated Engineering Union (AEU). The actual wording of the working practices clause is as follows:

- "(a) To ensure the fullest use of facilities and manpower, there will be complete flexibility and mobility of employees;
 - (b) It is agreed that changes in technology, processes and practices will be introduced and that such changes will affect both productivity and manning levels;
- (c) To ensure such flexibility and change, employees will undertake and/or undertake training for, all work as required by the company. All employees will train other employees as required;
- (d) Manning levels will be determined by the company using appropriate industrial engineering and manpower planning techniques;
- (e) Employees will be prepared for work at their place of work at the start and end of their normal working day/shift" (Agreement, 1987, p 11).

As seen above, flexibility does not solely relate to the work people actually do but also

to the number of those employed to do it.

Atkinson (1985, p 32) distinguishes between

- numerical flexibility,
- functional flexibility and
- financial flexibility.

Functional flexibility covers the tasks performed within a working environment, as discussed above, but numerical flexibility is concerned with the ease with which the number of workers employed can be adjusted to meet fluctuations in the level of demand. The numerically flexible firm is the one which always deploys exactly the right number of workers at each stage of the fluctuation rather than suffering shortages at one point or overmanning at another. Financial flexibility encourages and supports the other two.

Atkinson's flexible firm consists of a core group of employees surrounded by peripheral groups, and it is mostly required from the core group to deliver the functional flexibility. It is clearly not possible to employ temporary workers on the full range of skills developed by the core group.

Recent case-studies such as British Leyland, Nissan Manufacturing (UK), Pilkington Glass (UK) and others

have proved that flexibility and the removal of restrictive practices have led to improved productivity, less labour turnover and absenteeism, more job satisfaction and less grievances and strikes.

Although flexibility might appear to be nothing other than job redesign, since it encompasses job enlargement, job enrichment and job rotation, it has a nuance difference. The main purpose of job redesign, as it appears in the literature, is to improve the employees' quality of working life, for example, reducing monotony, giving the employee more skills and reducing job dissatisfaction. Flexibility as it is introduced in the case-studies mentioned has as its main purpose the improvement of productivity, efficiency, profitability and competitiveness of the organisation, with the resultant increase in job satisfaction as an additional spin-off.

This chapter will focus on flexibility as implemented in, among others, British Leyland, Nissan Manufacturing (UK) and Pilkington Glass (UK). These organisations will not be dealt with separately but together under the following headings:

- (i) situation preceding flexibility,
- (ii) actions taken to implement flexibility, and
- (iii) results of flexibility.

4.2. Situation preceding flexibility

4.2.1.British Leyland

British Leyland was formed in 1968 after a great number of mergers. The company was a single business in name only, for each of its constitutent parts consisted of the proudest individual names in the British motor industry: Austin, Morris, Jaguar, Rover, Triumph and Leyland.

When Sir Michael Edwardes took over British Leyland in 1977, the company had run out of money. Industrial disruption and strikes had resulted in a production loss of 250 000 vehicles in just 10 months, (this was a quarter of the company's total planned production for that year). There was not enough money to pay the wages and there was no possibility of going to the government for immediate funds. Loan facilities of £80 million was needed to see them through this crisis period. (Edwardes, 1983, p 13)

At the same time there was an unprecedented level of competition within the European motor industry. Serious weaknesses existed in the British car industry - too many manufacturers, too many models, too many plants and too much capacity. Other severe weaknesses included poor quality, bad labour relations, unsatisfactory delivery record, low productivity, and too much manpower. (Edwardes, 1983, p 35).

Meanwhile, disputes had run at more than two million man hours for every single month in 1977. They were

dealing with 17 different unions across 50 factories. None of the factories was achieving targeted rates of production.

Furthermore their fixed costs had to be met by at least £100 million a year. Overmanning in the factories had to be dealt with, which meant that many thousands of jobs would be lost in the company. According to Edwardes (1983, p 60) even the de-manning of 17 000 employees only brought jobs into line with the reduced scale of operations. It did not tackle the fundamental problem of poor productivity.

During 1978 and 1979 some progress was made, however Edwardes (1983, p 73), says "the real problem was that management was still striving to get into the driver's seat, having been out of it for many years ... (they) had to win the hearts and minds of the workforce. It was all a question of deciding on the right objectives and having agreed upon a strategy, then sticking to it".

Productivity had to be improved by something like 150% in just a few years.

Quality and consistency of production had to be improved immeasurably. This meant that the number of disputes had to be cut to something like one fifth of what had become the norm in their 34 car plants.

4.2.2.Nissan Manufacturing (UK)

As seen in the British Leyland case, British industry was in a downward spiral characterised by inflexibility, poor co-operation, low productivity due to lack of trust, low rewards, and poor security.

When the British government first imposed a statutory pay freeze in 1966 no automatic pay increases were allowed. However, from 1968 they allowed exceptions - increases could be granted where low pay could be demonstrated and where productivity improvements were negotiated. Thus followed a period of fake productivity deals. One specific example was the plumber-millwright amalgamation. Wickens (1987, p 39) explains, how each plumber was trained in those millwrighting skills he lacked and each millwrighter in the plumbing skills he lacked. Ticks were put in boxes to show that the training in each module had taken place and at the end of it a multi-skilled craftsman with a higher rate of pay emerged. However, in practice each craftsman still did the job he knew best and little cross-fertilisation took place.

Traditionally, British industry has created rigid demarcations within the skilled and between the skilled and non-skilled employees. (MacInnes, 1988, pp 13-14; Atkinson & Meager, 1986, p 26; Wickens, 1987, p 42)

Furthermore, shop stewards have frequently told managements that they fail to utilise the talents of their workforce. However, trade unions, in fear of

losing power, have been the first to prevent this flexibility.

Although many human resource professionals were sceptical that agreements on paper would really result in changes in practice, it was, according to Wickens (1987, p 40) mainly the development of new technology and the harsh economic realities of business life which led to significant changes in both management and union attitudes.

As clearly seen in the above, the main difference between British Leyland and Nissan's situation leading up to flexibility, was that British Leyland was an existing company while Nissan was a newly created company. British Leyland had to bring the changes into an already explosive situation whereas Nissan had the advantage of a new plant, new employees, new personnel philosophy and therefore could bring in new working practices.

According to Norman and Fillingham (1987) it is easy to instal new arrangements in new companies because the unions and prospective employees have virtually no choice. However, it appears to be more complicated with older existing companies where entrenched practices and attitudes have to be converted into a new way of working. Removing restrictions to flexibility usually requires a crisis before the need for change can be accepted.

4.2.3. Pilkington Glass (UK)

Another excellent example of an older, existing plant was the Cowley Hill Works, in St Helens. It was started in 1876 as a Plate Glass factory and from 1930 to 1980 the number of employees on site fluctuated around 3 000. Modern efficient manufacturing methods were hampered, not only by the old plant and a site that had been designed for something very different from a modern float works, but also a relatively old workforce with a strong sense of 'the way things had always been done'. In many cases they had not only worked in the plant themselves for over 20 years but often their fathers and even their grandfathers had worked there before them (Norman & Fillingham, 1987).

The site was inhibited by a folk memory of overmanning, strict demarcations between jobs and a highly developed internal hierarchy with strong departmental boundaries.

According to Norman and Fillingham (1987) by 1984 the Works was struggling to maintain an output from two float lines with 1 400 people, while its new sister plant at Greengate was achieving the same output with just one float line and 400 people. Clearly drastic steps needed to be taken. The crisis came to a head when one of the site's two float lines became due for a major cold repair. If Cowley Hill was to survive as a two-production line operation, it had to convince the Pilkington Board to invest almost £10 million against the promise of a more productive and efficient future.

The crisis was the impetus the site needed. It provided the opportunity for local management to negotiate-in a package of enabling agreements.

With the new Greengate Works the development was very different. In the mid-seventies, Pilkington recognised that big companies typically have big company systems which emphasise stability, develop bureaucracy and are fine for big ventures and high growth. However, they reduce the speed of business response needed for more uncertain market conditions (Norman & Fillingham, 1987).

Therefore, when they established the new Greengate Works they realised from the outset that they could not afford any restrictive practices and needed a totally flexible workforce.

4.3. Actions taken to incorporate flexibility

In this section, the various actions taken by the companies to incorporate flexibility are analysed.

4.3.1. British Leyland

During September 1978 1 800 machinists at Leyland's truck factory in Bathgate, Scotland, went on strike because they wanted to be paid a premium for operating the new machinery which was installed as part of a £22 million modernisation programme. While management saw this investment as providing tangible evidence that they were prepared to give that marginal factory a

future, a section of the workforce saw it simply as a bargaining counter for more money (Edwardes, 1983, p 76).

Edwardes used the announcement of the company's results for the first six months of 1978, as an opportunity to get the message across that management would not give way to disorderly industrial action, such as the Bathgate strike which lasted six weeks and cost £30 million. He told the workforce that the Board would rather see the factory closed for six months or more, than give way on a matter of principles (1983, p 77).

The situation improved in 1979 and although they had an official toolroom strike involving + 3 500 stalled workers the impact was far less. Management had realised that direct communication between themselves and the shop floor was vitally important. There was no other way to win the hearts and minds of the men at all levels. Politically motivated shop stewards could not be relied upon to present a balanced view to employees. They had a vested interest in the outcome, which was independent from and usually in conflict with the interests of the business and its employees. During the strike 100 senior managers spent considerable time on the shop floor - walking and talking in all 34 factories to explain the company's position, and why the demands could not be met (Edwardes, 1983, p 90).

Management had learnt not to compromise on principle, and it mattered greatly that no concessions were

contemplated or made. This did not go by unnoticed by the unions and employees.

It was, however, not until early 1980 that new work practices were introduced. Edwardes (1983, pp 125-127) had said that after months of fruitless negotiation, these new work practices were their most important industrial relations move since the war. A new wage deal was implemented at the same time. Neither was welcomed with open arms by the union officials or sceptical shop stewards. Management, however, firmly believed that their strategic 'Recovery Plan' had no hope of succeeding without a massive change in the way people were prepared to do their day-to-day work. The Recovery Plan included closing certain factories and plants, reducing manning levels and cutting excessive costs.

Two key areas of change were needed: First, the ability to move workers from one job to another (particularly to cover absenteeism at the start of shifts), which meant introducing flexibility in the use of skills, so that, for instance, maintenance did not require four people from four different unions to carry out repairs. The second was the end of anomalous cash buy-outs for 'practices and outcomes' which were widespread and had been negotiated on a factory-by-factory basis - practices which could not be retained if the company was to recoup its lost competitiveness (Edwardes, 1983, p 126).

Furthermore, management desperately wanted to shorten the laborious negotiation process, by writing into the agreement management's right to change work methods. However, after several hundred hours were spent by management and stewards arguing the inclusion management implemented the new work practices regardless of opposition. They did so by announcing that anyone who reported for work on a particular day was deemed to have accepted the change in employment conditions (Edwardes, 1983, p 127).

With this "30 years of management concessions (which had made it impossible to manufacture cars competitively) were thrown out of the window, and our car factories found themselves with a fighting chance of becoming competitive" (Edwardes, 1983, p 127). Soon the results were forthcoming.

4.3.2. Nissan Manufacturing (UK)

When the Nissan plant in the United Kingdom was opened in November 1984, Ishihara stated that their management philosophy for the car plant was based on the following four major pillars: First, to have open and frank communication within the Company. Second, to realise single status for all employees. Third, to provide equal opportunity for promotion for every employee. And last to have complete flexibility in production operations (Wickens, 1987, p 20). Although all four were regarded as important and interdependent this study focuses mainly on the fourth pillar, flexibility.

When Nissan started recruiting employees for the new plant they emphasised flexibility and in their

recruitment literature explained what it meant. It was covered in detail at all stages of the hiring process and extracts from the agreement between the company and the union were sent with all offer letters to candidates. If candidates were not prepared to be flexible, they had every opportunity of withdrawing. And if the selectors discerned reticence on the part of the candidates, they were likely to be rejected.

(i) Main actions taken at Nissan

- (a) One of the actions taken by Nissan, was to have only two job titles, namely manufacturing staff and technicians that covered all the manual tasks within the car plant (Wickens, 1987, p 46).
- (b) Secondly, Nissan was determined to have no job descriptions which would limit the work people were doing, rather than expanding their level of flexibility and capability. Wickens (1989) said that the end result of a system which provided precise details of the responsibilities of each job only served to restrict (rather than expand) what people did. In the end hundreds of job titles, numerous grading levels, many steps from top to bottom and the preservation of the system would become more important than responding rapidly to changing technology, processes or market conditions.
- (c) Thirdly, flexibility meant that

manufacturing staff would have total responsibility for the quality of work they produced. Nissan does not employ many quality inspectors. Each member of the manufacturing staff is expected to validate the quality of his own work and not pass on unacceptable quality to the next stage of the process.

- (d) Fourthly, these employees are responsible for keeping their own areas clean and painted. Naturally, they are thus less inclined to dirty it.
- (e) Probably the most important element of flexibility they established related to maintenance. In the United Kingdom, the following generally happens breakdown occurs on the assembly line: the maintenance team is called in to handle the situation and the production workers leave the job and return only when the problem is solved. Wickens says that the maintenance men in the United Kingdom generally regard it as an erosion of their skills if an unskilled man is seen as being able to contribute, and the semi-skilled have little incentive to increase responsibilities. Strangely enough it has not only been the trade unions that have discouraged job expansion but management too (Wickens, 1989).

At Nissan, however, a different situation exists due to flexibility. Every craftsman multi-skilled - or at least undertaking a training programme, will result in genuine multi-skilling. Beyond the need to work safely, there need be no limitations on the range of tasks employees can perform, although it has to be recognised that not everyone has the same capabilities. Training programmes for the craftsmen of the future have to take this requirement into account from the very start. So when a breakdown occurs and the maintenance people arrive, the assembly workers help the maintenance team for they know more about that particular part of the job than anyone else (Wickens, 1987, pp 44-45).

But flexibility does not simply mean flexibility between manual workers. In Nissan they have developed the concept that there are no restrictions - this could be as informal as managers shifting furniture, spending long periods in the production areas and filing their own papers to more formal arrangements of moving between jobs.

"Once you start on the path to flexibility, there is no logical limit, other than the fact that the cost of training everyone to do everything is disproportionate to the benefits. If managers are not flexible, however, you

cannot expect people on the shopfloor to respond" (Wickens, 1987, p 53).

(ii) Trade Union Reaction

Regarding the reaction of trade unions it is to be expected that some trade unions regard flexibility as the most serious challenge to trade unionism in decades. According to Wickens (1989) they regard Nissan's philosophy of flexibility and teamwork as anti-union. Furthermore, it appears that most of these remarks are forthcoming from the more left wing, militant unions. Nissan does not see how providing people with fulfilling, meaningful jobs could be anti-union.

The mainstream trade unionists, however, accept these workplace realities. While they may not always be happy with the pace of change and are protective of jobs, their attitude is moving from one of resisting change to one of negotiating change and getting the best deal they can for their members (Wickens, 1987, p 54).

The Trade Union Congress (TUC) in an internal document circulated to all trade unions in October 1986 stated that by giving workers increased responsibility for quality and output, job satisfaction could increase. By weakening job demarcation lines, jobs could become more interesting and it was important for the unions

to acknowledge this and not be seen to be opposed to it (Wickens, 1987, p 54).

4.3.3.Pilkington Glass

After many years of investigation, management discussion and consultation with the unions, Pilkington announced that it was decentralising the negotiating agreements. Further they needed every employee to be committed to the success of the enterprise in which he or she worked, in other words, teamwork. Plants had to remove restrictive practices, reduce manufacturing costs and increase productivity by 10% to 25% (Chaplin, 1989).

(i) Greengate Works

The new factory, Greengate Works, was established with a single, integrated reward structure covering four unions, and a manning level which would have been 50% higher if existing agreements and practices had been followed as in their other factories They resisted the inclusion of any restrictive practices and stressed flexibility in duties. The anomalies of the complex pay structures were replaced by a single 10-grade salary system, with time off instead of paid overtime (Norman & Fillingham, 1987).

(ii) Cowley Hill Works

The actual challenges for Pilkington lay in their older, existing plant, the Cowley Hill Works. As already mentioned in section 4.2.3. p 57 the crises they experienced with the second float line resulted in management negotiating-in a package of enabling agreements. These, together with the introduction of enhanced voluntary redundancy terms, allowed an acceleration of de-manning and a removal of many of the demarcations and barriers which had prevented an operation of an efficiency similar to that of the Greengate site.

The package of changes which was eventually accepted by the workforce included:

- a move to single status with all employees being rewarded on a salaried basis through a common job evaluation scheme,
- an annualised hours approach with time off in lieu of alternative hours worked rather than paid overtime,
- one multi-union forum for consultation and negotiation, and
- a more open management style.

According to Norman and Fillingham (1987) these changes, although radical at the time, were

perhaps the easiest part of the change in Cowley Hill. Actually achieving what the enabling agreement made possible was to prove a much taller order. To achieve the same levels of output with less than 900 people which only a few years previously had been the norm with over 3 000 employees, required dramatic changes in attitudes amongst all who worked at Cowley Hill.

Flexibility was to be the key - flexibility of skills, flexibility of working time, and flexibility of approach.

Chaplin's (1989) and Norman and Fillingham's (1987) thoughts on the three types of flexibility are summarised as follows:

(i) Increased skills flexibility was throughout the works. In the craft area there were to be only three core jobs: building, electrical and mechanical craftsmen, where previously there had been 21 separate trades. In the mechanical area in particular no less than 14 separate trades were amalgamated into the single job of mechanical craftsmen. In the staff area the great variety of clerical jobs were arranged into generic groupings. All of this was only possible through the introduction of new technology on both shopfloor and particularly in the office, coupled with a massive programme of retraining and planned experience.

Jobs were therefore redesigned for maximum flexibility and mobility, providing efficiency and job satisfaction. Rotation of tasks within a work group within a single job title was strongly encouraged. In fact they managed to reduce 205 jobs to 67 jobs on site, and they wrote broad job descriptions that were drafted together by union representatives and local management. They therefore devised fewer but bigger jobs and gave operators more responsibility and accountability. Process workers were trained in routine preventative maintenance and were encouraged to do their own quality inspection. Furthermore they devised a level of reward that would reflect the flexibility of the employees.

(ii) Flexibility of working time was also an essential for the new Cowley Hill Works. Over half the site's employees were continuous shift workers and the old traditional British manufacturing four-set shift systems were creaking under the strain of an average 39 hour week and demands for production cover with the reduced manning. Consequently five- and six-set shift systems were introduced with an onus on the work group arranging their own cover. In addition, paid overtime was abolished and a 'time off for time worked' system introduced. As a result the

capacity of all concerned for finding more efficient ways of operating developed enormously.

(iii) To make the above work successfully Pilkington realised that they needed a more flexible approach towards business. Supervisors had to approach their role more as man-managers business managers with a cross-departmental view. The position of being purely a technical specialist, which many had held in earlier years, was no longer an option. Over 120 employees passed through a supervisory assessment centre, to help the plant identify those employees with the flexibility of approach which first-line supervisors would need in the "new" Cowley Hill.

Once the euphoria of negotiating the original enabling packages had subsided it became clear that to make the new flexibility system work, more had to be done to change the attitudes of employees on site. The attitudes that prevailed tended to reinforce existing demarcations. There was a view that any extra effort or change should be met by extra reward and the ceilings on output set by the pre-package productivity bonuses remained a cultural norm (Norman & Fillingham, 1987).

To overcome these cultural obstacles, the plant began a planned programme of attitude change, which included

customer care training, communications training and a programme to promote site identity. This had the effect of raising the sights of those who worked in Cowley Hill, and demonstrating that there are long-term benefits for everyone to be found by putting flexibility into practice.

According to Norman and Fillingham, (1987) getting flexibility into Cowley Hill was not without its difficulties. Line managers and supervisors themselves did not always find the concept easy to handle in a real-life work situation. Some put operators and craftsmen onto the tasks that they knew best, while others were tempted to take flexibility to an absurd extreme so that employees did not have the time to build up an adequate core of skills and experience in a particular activity. Between these two traps, management were looking to steer a course of planned and controlled development of flexibility of skills and attitudes amongst all Cowley Hill employees.

4.4. RESULTS OF FLEXIBILITY

Having reviewed why the various companies decided to encourage flexibility, and having analysed what they actually did to ensure a flexible workforce, a brief look is taken at the results the companies obtained.

4.4.1 British Leyland

Edwardes, (1983) in his book, does not write much

about the specific results they achieved, however the name of the book reflects the major turnaround that was achieved and the fact that the company was saved from extinction. Edwardes however does make specific mention of the dramatic productivity improvements achieved.

Productivity, which had declined steadily over the years, increased dramatically. Whereas they were producing 5,77 cars per man in 1977, 7 cars per man in 1980, they were producing 17 cars a man in 1981 and 25 in 1982 (1983, p 127).

Furthermore they experienced increased employee involvement, improved communications between management and employees and greater teamwork. British Leyland saw that through the involvement of employees, the elimination of restrictive practices and management regaining control of the workforce, they could increase productivity, their products became more competitive and they could regain some of the overseas and local market. Jaquar's 100% increase in sales in the USA in 1982 was to illustrate the point. Edwardes (1983, p 291) in reflection on the improvement of productivity at British Leyland stressed that it was up to managers to argue the case for the removal of restrictive practices, so that unions would see the need to forego concessions they had gained over the years. Those who did not - whether managers or employee representatives - would put themselves and their company in jeopardy.

4.4.2. Nissan Manufacturing (UK)

It appears that the change in the trade union's approach was a major contributing factor to the successes achieved in Nissan.

In 1983, for example, the Engineering Employers Federation called for full flexibility between and within trades and occupations. The Confederation of Shipbuilding and Engineering Unions (CSEU) responded in 1986 when they stated that they would be prepared to recommend to constituent unions that they co-operate with employers in eliminating demarcations and other restrictive practices in exchange for a reduction in the working week.

Both parties had therefore realised it was in their mutual interest to survive. This meant that at plant level real changes had to take place, requiring considerable effort by all, to overcome traditional attitudes and practices.

Despite many obstacles, many companies started moving in the direction of greater flexibility, and for the majority it meant real flexibility and real improvements in productivity. According to the 1984 IDS study, the main triggers for this movement were:

- (i) the weakening of the trade unions' bargaining power;
- (ii) the desire for craftsmen to learn new skills

and then enhance their earning potential; and

(iii) companies' requirements of a highly skilled flexible workforce, capable of effectively and efficiently maintaining increasingly sophisticated equipment and systems.

Flexibility in Nissan gave rise to the following intangibles: responsibility, commitment, innovation and pride.

In Wickens' own words, "Nissan's results speak for themselves. Quality standards exceed Nissan's world-wide targets, schedules are always met, the commitment of all staff can, according to most visitors, virtually be felt, improvements in productivity are constantly made by the people actually doing the job, turnover and absenteeism is low, lateness is virtually non-existent" (1987, p 187). Furthermore they have not lost a single car to schedule due to labour unrest, nor have any formal grievances been recorded since coming into existence (Wickens, 1989).

Regarding flexibility in Nissan, MacInnes (1988, p 23) said that there were no doubt some impressive individual examples of companies successfully adopting flexibility strategies, and that the new Nissan plant at Sunderland was but one.

4.4.3. Pilkington Glass (UK)

According to Chaplin (1989) the success of their

interventions at Pilkington Glass was partly due to the fact that they challenged every assumption and preconception they had in the workplace. Furthermore, they faced up to external perspectives, examined the standards which they set for themselves and their employees and restructured their business.

Through their actions, which as seen in section 4.3.3. pp 66-71 were flexibility, together with changes to the pay structure, management style, manning levels, multi-unionism, worker participation and team building, translated productivity gains into increased output and reduced costs (Norman & Fillingham, 1987).

4.5. OTHER EXAMPLES WHERE FLEXIBILITY HAS BEEN IMPLEMENTED

In this section a few more examples of companies that have implemented flexibility are given. Three British examples, two American and one South African example are discussed.

4.5.1. Ford Motor Company (UK)

Until its 1985/86 negotiations, Ford had 516 different manual worker titles. In the negotiations of 1985 Ford offered a 3 per cent increase plus additional awards if agreement was reached on changes to work practices, based on the following principles:

- versatility and flexibility;
- the acquisition and use of new skills; and
- the elimination of inefficient lines of demarcation.

This meant that electrical and mechanical craftsmen were to acquire a comprehensive listing of additional skills, which introduced radical changes in the Company's practices. Similarly the production operators would be required to perform all the tasks, should process and operating conditions call for it. They were to undertake any necessary training programmes, and flexibility and mobility within and between departments was seen as essential. Operators were also to keep their immediate and surrounding work areas clean (Wickens 1987, p 49).

The 516 different manual worker titles were reduced to 52. Ford is now claiming a 50 per cent increase in productivity for the period 1986/1987 (Wickens, 1987, p 49).

(By 1985 Chrysler who had 150 different job classifications had not managed to reduce their numbers drastically. In his autobiography Lee Iacocca (1985, p 321) writes the following about different attitudes to work, "Whereas the attitude of the Japanese worker is 'How can I help?', the attitude of his American counterpart is, all too

often, 'That's not my job'".)

4.5.2 Caterpillar Tractors (UK)

The November 1985 deal between Caterpillar Tractors and the Amalgamated Engineering Union (AEU) significantly advanced the cause of flexibility. Reducing the 51 job titles to 12, it also provided that within each of five pay groups, flexibility would be limited only by individual capability. Specific examples included flexibility between assemblers, adjusters and testers, multi-skilling of craftsmen and co-operation on sharing job knowledge and experience. Once craftsmen became multi-skilled in both electrical and mechanical work, they received a higher rate of pay. (Wickens, 1987, p 49)

4.5.3 Vickers and Cammell Laird (UK)

Finally, not even the most traditional areas of British industry were exempted from flexibility. Vickers and Cammell Laird, following their 1986 privatisation, negotiated a comprehensive package with the CSEU, which included, according to Wickens (1987, pp 50-51) a statement that no prior notification would be required for implementation of flexibility, as it was an ongoing procedure.

As seen, these agreements were usually stated in general terms. There were no minutely detailed agreements stating which trade or craft was to do which specific aspect of another trade or craft.

Wickens (1987, p 49) states the following clearly, "if you have an agreement which provides for total flexibility, anything else specified will be restrictive in nature".

Many other British examples exist, for example, Rothmans International Tobacco; Scottish and Newcastle Breweries; ICI; Findus, at Long Benton; Colemans of Norwich; Inmos; Babcock Power and Anglesey Aluminium, which will not be discussed in this research paper.

4.5.4 Lechmere Incorporated (USA)

Toward the end of 1987 Lechmere experienced a shortage of labour at its new store in Sarasota. In order to deal with this shortage they offered the Sarasota workers salary increases based on the number of jobs they learnt to perform. Cashiers were encouraged to sell records and tapes. Sporting goods salesmen got tutoring in forklift driving. That way Lechmere could quickly adjust to staffing needs simply by redeploying existing workers. Also the pay incentives, along with the prospect of a more varied and interesting workday, proved valuable lures in recruiting. According to Alster (1989, p 36) the Sarasota store now has a work force that is 60 percent full-timers, versus an average of 30 percent for the rest of the chain. Chaddock, Lechmere's senior vice president for personnel, says the Sarasota store is substantially more productive than the others. (It is interesting to note that Gupta, Jenkins and Carington (1986, p 116) in their study of 154 American companies found that 89,5% of the companies said that skill-based pay increased workforce flexibility to a large extent. (Compare also Lawler and Ledford, 1985, pp 33-34 and Tosi and Tosi, 1986, pp 57-66).

It was mainly a labour shortage that drove Lechmere's managers to try training workers in more than one skill.

Alster (1989, p 36) warns that "a flexible work force is not an all purpose 'Mr Fixit' for companies that want to increase speed, efficiency, quality, productivity and job satisfaction".

4.5.5 Motorola (USA)

Many manufacturers have found that teams of cross-trained workers are vital to quality improvement. They can detect flaws in each other's work, apply problem-solving techniques more effectively, and fill in for each other as needed - which is critical in just-in-time systems that function without mountainous buffers of inventory and work-in-progress.

In 1985 Motorola experienced problems regarding the quality of their products, so much so, that the International Trade Commission remarked on the relatively high failure rates reported by some purchasers (Alster, 1989, p 37). The company

shifted responsibility for detecting defects from inspectors at the end of the assembly line to individual production workers. Then, because workers who understand the entire production process are the most adept at defect diagnosis, Motorola overhauled its compensation system to reward those who learnt a variety of skills.

The defect rate fell by 72 per cent, from 1 000 per million parts in 1985 to today's 233.

In 1988 the company was one of three winners of a federal Malcolm Baldridge National Quality award.

Similarly, there are many other examples of successes achieved in American companies due to the flexible utilisation of their workforces. These include General Motors, National Steel, USAA (an insurance and financial services company), Arlington Heights (a cellular phone factory), IBM, Kodak and Ford's Range Steel plant.

Finally, having considered both British and American examples, a South African company that has, among other things, included flexibility in the company culture, is examined below.

4.5.6 Bell Equipment Company (SA)

Bell Equipment originated in 1950 and attributes the company's success to the following factors: open communication, everyone can make a contribution, family and team spirit, management by walking around, customer service, single status, promotion and pay based on merit, profit-sharing and the flexible approach of employees.

At Bell Equipment they spend as little time as possible on drawing up jcb descriptions and grading jobs as these have the nett effect of putting employees in boxes and promoting the attitude 'it is not my job if it is not in my job description'. Instead Bell believes that they need a flexible approach which would promote a feeling of team spirit and an attitude of 'can I help you with your job so the whole company can benefit'(1988).

An illustration of the flexible utilisation of their workforce lies in the following example. In order to satisfy their customers the company selects their best vehicle service engineers, who show the interest, and spend R30 000 training them as helicopter pilots. The technical engineer therefore flies out to the customer, services his vehicles and returns. No unutilised time is lost. In this way they can offer their customers a competent technical reaction unit that reacts extremely quickly, minimises the customers' downtime and reduces company costs. Furthermore they are able to retain the engineers' services for a far greater period of time in his particular field.

What agreement of the 1960's and 1970's. A

4.6. SUMMARY

This chapter focused on flexibility as another factor in productivity improvement. Three main case-studies, British Leyland, Nissan (UK) and Pilkington Glass (UK) were discussed as well as a few other British, American and South African examples.

One of the main opponents of flexibility has been MacInnes (1988, pp 12-15) who claims that there are two problems with the flexibility theme: Firstly, the researcher mentioned believes that the empirical evidence for the actual spread flexibility is unconvincing, and secondly that the reason why companies should implement flexible working is not clear. Atkinson (1985, pp 153-154), after his study of 103 firms, concluded that the main constraints on flexibility were union demarcation, inadequacy of skills, the resulting of training and shortage of training resources. MacInnes (1988, p 8) adds to the above constraints the need for higher quality supervision, the indispensability of flexible workers and the greater bargaining power given to the flexible workers.

Although the above criticisms and constraints exist it is believed that the flexibility of the 1980's is being confused with the general type of productivity agreement of the 1960's and 1970's. A 1986 British Treasury article (p 3) argues that the 1980 agreements signal a complete change in labour

practices from the attempt to defend traditional positions against encroachment by market forces to the attempt to develop the potential of the organisation and its employees fully. The evidence, as seen in this chapter, is that flexibility agreements are now quite widespread and are achieving excellent results.

The greater range and complexity of new technology, combined with the need for higher quality or faster throughput, puts a premium on the general skill level of the workforce, its commitment to the organisation and productivity and the overall quality of its people.

The above reasons and the examples of the success of flexibility in many companies around the world, provided the stimulation to investigate the existence of flexibility and their possible success in South African companies.