CHAPTER 2

IMPROVING PRODUCTIVITY : TRADITIONAL METHODS

2.1. Introduction

Many organisations have been leaders in realising financial opportunities from technological development and capital investment. Many of these companies however, have failed to maximise productivity by not taking full advantage of the abilities of their people (Prokopenko, 1987, p 10; Shetty, 1986, p 166; Akin and Hopelain, 1986, p 19).

The aim of this chapter is, first of all, to determine what it means to maximise or improve productivity, and what actually restrains it. This is followed by an analysis of productivity bargaining and the subsequent development of productivity improvement programmes.

The latter will not be dealt with in great detail but will serve the purpose of providing the context within which flexibility must be seen, so that it does not stand in isolation as the alpha and the omega for productivity improvement.

2.2. Productivity improvement

Basically, productivity improvement involves getting out more than was put in; in other words, producing more and better goods and services with the same inputs of labour, capital, materials and energy, or the same outputs with less inputs; hence making the ratio of outputs to inputs greater (Sutermeister, 1969, p 67; Werther, Ruch & McClure, 1986, p 12; Du Plooy, 1988, p 84).

According to Ross, Ross and Hatcher (1986, p 18) productivity improvement has, historically, focused on technology and capital to reduce the input of labour cost of production. Output was generally thought to be subject to improvement by getting more production through the application of industrial engineering techniques such as methods analysis and workflow. Although the above approach is still appropriate the movement today is toward better utilisation of the potential available through human resources. In fact, it is widely agreed among successful and profitable firms that the greatest potential for increasing productivity lies in the motivation and untapped abilities of the workforce. Even the economic experts concerned with productivity indicate that in the years ahead industry will benefit even more from investment in human capital than in plant and equipment (Shetty, 1986, p 167).

Productivity improvement in an enterprise is a function and a result of management efficiency, synonymous with good management. Prokopenko (1987, p 12) stresses that it is a prime management objective and responsibility to increase productivity and maintain its growth. In fact, creating the conditions for higher performance is the essence of productivity management.

2.2.1 Measuring productivity improvement

According to Latham (1981, pp 2-3) increases in performance due to investment from capital or technology can be measured in traditional accounting terms (e.g. profits and costs, return on investment). The influence of an individual employee on productivity in most jobs is difficult to measure in traditional accounting terms. The influence of an organisation's human resources on productivity, however, can be measured in terms of what people do on the job. What people do can be measured directly in terms of observations by managers, peers and subordinates as to the frequency with which employees do those things that are critical to job success. What people do can also be appraised in terms of such traditional measures as attendance, accidents, turnover and grievances. What people do or do not do should be a source of concern to all organisations. Current ineffective employee practices are costing companies millions annually and should be changed.

What people do is an area that managers can influence, to their benefit and to the benefit of their subordinates. On the other hand cost increases in such items as equipment and energy are areas over which most organisations have little control (Latham, 1981, pp 2-3).

However, most organisations have not yet totally explored the development of effective human resource systems.

Worker or labour productivity usually refers to the per-person output. The published productivity figures are derived from gross production divided by the number of employees, hours worked and sometimes salaries paid. The assumption, according to Batstone (1984, p 257) can therefore also be made that the increased per-person productivity is linked to changes in human work patterns.

Worker productivity may be defined and measured in a number of indirect ways too, for example, absenteeism, turnover, tardiness, amount of work and quality of work (Compare Macarov, 1982, p 12; Kopelman, 1986, p 152).

The next section briefly considers what restrains productivity and labour productivity in particular.

2.3. Productivity restraints

Having seen South Africa's poor productivity record and the necessity and possibilities of improving productivity mentioned before, (see Chapter 1, pp 1-2) the question arises what the barriers or restraints to improving productivity are. Various researchers and specialists have suggested what they regard as the main restraints, some varying slightly from others. Lemmer (1985, pp 121-124), for example, proposed the following five major issues that tend to limit improved productivity:

(i) poor management leadership,

(ii) the barriers in the communication and motivation processes in larger organisations,

(iii) lack of productivity measurement,

(iv) the over-emphasis of physical resources and under-emphasis of how they affect labour, and

(v) the legislative limitations imposed by Government.

Furthermore, and of specific interest to this study, Lemmer (1985) includes the following inefficient work practices which also inhibit productivity:

- systematic overtime,
- inflexible job demarcation,
- artisans' assistants,
- limitations placed on supervisors by management and unions,
- customary work pace and outdated work patterns,
- overmanning to provide for excessive absenteeism, and
- inadequate training of workers.

McKersie and Klein (as quoted by Werther et al, 1986, p 381), analysed 61 plant-level questionnaires and reviewed extensive information from other sources about the industrial relations components of the productivity problem. These researchers identified three major productivity restraints: resistance to change, reduced worker motivation and inhibiting work rules.

(i) Resistance to change; not only to new technology but also the resistance to adopting new work arrangements and to aligning the social organisation to the requirements of that technology.

(ii) Reduced motivation, which could mainly be seen in the absenteeism rates.

(iii) Work-rule restraints; "This subject was frequently mentioned in survey responses, especially for plants where unions were present. The major type of work-rule problem today revolves around the issue of flexibility in the deployment of workers. They estimate that the work-rule problem may negatively impact on labour productivity in the range of 15 to 25 percent ... Work rules emerge in non-union as well as union plants ... the deployment of labour is usually done on a more flexible basis in a non-union plant" (Werther et al, 1986, p 383).

Two American consultants, Kepner and Tregoe, studied the causal factors for poor productivity. They attributed poor productivity performance by United States industry relative to high Japanese performance to five factors, of which only the following two are specifically relevant to this study:

(i) A trend towards and extreme emphasis on individualism and specialisation within Western world organisations ... and

(ii) Over-emphasis on formal division of tasks and organisation designs that emphasise formal duties and responsibilities, which has dehumanised work and reduced individual motivation as a result (Kepner, 1982, pp 2-3).

In addition to the factors mentioned by Lemmer, McKersie and Klein, and Kepner, Riley of the National Productivity Institute (1985, p 104) says that the following factors also affect outputs:

- work practices,
- machine systems, and
- skills available.

Factors affecting inputs include amongst others cost of labour and payment systems.

Visser, (1988, p 1), therefore believes the only way to cut production unit costs will be through management truly involving their people, in collaboration with trade unions, and in productivity improvement programmes. The benefits of such improvements must be shared with the workers, the shareholders and the clients. Of major importance, therefore, is the need to reduce labour unit costs in all manufacturing enterprises where wages have increased at a greater rate than productivity improvement. Only if wage increases become better aligned with productivity performance will South Africa become competitive.

2.4. Productivity bargaining

McKersie and Hunter (1973, p 9) defined

productivity bargaining as "the negotiation and implementation of formal collective agreements that stipulate both workers' gains and certain changes in work rules and practices with the primary objective of achieving greater productivity".

Lemmer (1985, p 126) similarly defined productivity bargaining as the negotiation of an agreement in which workers agree to bring about changes in their work practices which would lead to more economical use of manpower in exchange for certain benefits provided by the employer.

The literature indicates that productivity bargaining is a product of the British industrial relations system during the 1960's (Compare Batstone, 1984, p 146; McKersie and Hunter, 1973, p 5 and Ross, 1981, p 76). In general, they made an effort to use such agreements to increase flexibility in manpower utilisation which had been seriously circumscribed by rigid demarcation lines between tightly defined jobs. These union-dictated inflexibilities had led to unevenness in production and tended to exaggerate labour shortages. Due to the inflexibilities management could not achieve a 100 percent workload coverage for everybody. Unfortunately many of these agreements, although an improvement in one sense, were in another sense very restrictive in nature. (See also Chapter 1, p 5)

On the substantive side, the productivity agreements have tended to de-emphasise the use of conventional criteria in wage negotiations; they have focused attention on improving labour efficiency in order to justify wage changes. Thus the agreements have helped to create a climate where workers begin to feel that they must earn what they receive in the way of additional wages. Although the popularity of productivity agreements in Britain declined due to too many fake agreements, growing inflation and Incomes Policy, substantial breakthroughs in covering costs and needed changes in worker-management relations were made (Batstone, 1984, p 147; Ross 1981, p 79).

2.5. Productivity improvement programmes

In the 1970's new forms of work organisation programmes designed to improve productivity and quality of working life proliferated. In many ways these programmes were revolutionary because they represented fundamental changes in how work should be organised, in how organisations might be designed, in how employees were utilised and in management-employee relationships. Some of these programmes have been more successful than others. The three most general and widely implemented productivity improvement programmes are briefly discussed below. (Job design and enrichment are discussed in Chapter 3.)

2.5.1 Quality circles

One of the techniques which has caused considerable interest over the last few years is quality circles, which provide workers with an opportunity to put forward proposals concerning production and related issues. A 'quality circle' (also termed 'quality control circles' or 'quality control group') has been defined by Biesheuvel (1984, p 121) as: "A group of employees representing different job levels within the same work area who have come together voluntarily to contribute their problem-solving capacities, based on their own ... experiences ..." They analyse the causes of those problems and recommend solutions to management (Compare Bushe, 1988, p 131; Marks, Mirvis, Hackett & Grady, 1986, p 62; Rafaeli, 1985, p 604).

Quality circles originated in Japan in the early 1960's and were, ironically, introduced by two American consultants, Juran and Deming.

Evans in 1982 (1982, p 81) estimated that over one million quality circles were operating in Japanese factories, involving over 10 million Japanese workers, which was in the region of 80 per cent of all production workers. The success of quality circles as a strategy is now well known. The effects on quality and productivity have been dramatic. For example, in 1982 rejects and defects due to manufacturing problems were about one hundredth of the number in comparable western factories.

Following their emergence in the United States in the mid-1970's, the first circles were introduced in Britain in 1978. It is now thought, according to the American Management Association Survey (1985, pp 30-31) that over 3 000 companies throughout the United States use them. In South Africa today there are an estimated 2 500 quality circles in operation. The Chief Executive of Toyota South Africa said that quality control circles gave employees job satisfaction through their own participation and motivative thinking, decision-making and the implementation of their own ideas. Furthermore their workers' involvement in production decision-making had a major effect on their productivity and quality levels" (Wessels, 1989, p 11).

The significance of quality circles, according to Batstone (1984, p 266) and Deming (1982, pp 108-109) is seen to lie in three areas:

(i) it draws upon and uses for management purposes the detailed knowledge and skills of those immediately involved in the production process;

(ii) it may thereby foster worker identity with management goals and interests; and

(iii) it may thereby reduce worker and union controls and may even weaken the role of the union within the workplace.

The successes of quality circles can be ascribed to its multi-faceted, holistic approach.

Not only do they enhance the quality and reliability of output but they become a means of enhancing employee participation and involvement, devolving job-related decision-making and a technique of skill development. This involves formal training input reinforced by practical application in the work environment.

2.5.2 Employee involvement and participation

Manning (1987, p 22) says that over the last ten years, many managements have realised that the alienation of its employees lies at the heart of the economic difficulties experienced. And they have accepted the importance of gaining employees' understanding and co-operation through adopting a more open management style.

It should be remembered that the subject of participation is not an invention of the seventies, but rather has reappeared in a series of waves over the course of the last century. Furthermore, participative management has become associated with a variety of workplace reforms including quality circles which, according to Beer, Spector, Lawrence, Mills and Walton (1984, p 158) has its success based on employee involvement and participation.

In 1983, Batstone (1984, p 263) in his survey of

British companies asked respondents whether management had changed its approach to employee relations in the last five years. Only a third said that no change had occurred. By far the most common change identified concerned attempts to increase employee involvement: this was so in 47 per cent of cases. No other response was so frequently given.

Basically employee involvement and participation revolve around the principle that each individual is unique and has the ability to contribute to the objectives of the organisation.

Evans (1982, p 8) by way of the following definitions distinguishes between employee involvement and participation: "Employee involvement is a range of processes designed to engage the support, understanding and optimum contribution of all employees in an organisation and their commitment to its objectives. Employee participation on the other hand is a process of employee involvement designed to provide employees with the opportunity to influence and, where appropriate, take part in decision-making on matters which affect them" (Compare Marchington, 1980, p 9; Locke, Schweiger & Latham; 1986, p 66-67).

Nattrass (1987, p 7) explains further that employee participation is not getting employees to share in managing the business. That might be a vision, but the first step is to get them to start managing their own jobs. This involvement is accomplished by reversing the historical trend toward more division of labour and giving employees or groups of employees more responsibility for a whole task. Thus employees gain more control and influence over work goals and methods, a sharp reversal from the historical pattern of hierarchical control. Already in the 1960's Tannenbaum and Massarika (in Sutermeister, 1969, pp 433-435) identified the following principal advantages of employee participation:

(i) higher rate of output and increased quality of product;

(ii) reduction in turnover, absenteeism and tardiness;

(iii) reduction in the number of grievances and more peaceful manager-subordinate relations;

(iv) greater readiness to accept change;

(v) greater ease in the management of subordinates; and

(vi) improved quality of managerial decisions.

Various authors such as Drucker (1980, p 15), Iacocca (1984, p 234), Crosby (1979, p 133), Peters and Waterman (1982, p 226), Ouchi (1981, p 97) and Naisbitt and Aburdene (1985, p 117) agree that strengthening participation by all organisation members is the factor that can make the difference.

Cashbuild is but one organisation in South Africa that has achieved major success and excellence mainly through an almost singular focus on total employee involvement (Koopman, Nasser & Nel, 1987, pp 148-156, 178).

However, some companies introduce participative methods on the shop floor in the hope that a greater congruence of interest will make it less likely that workers will organise. So when union avoidance is the objective to the exclusion of developing a genuine process of mutual influence between management and employees, participative methods according to Beer et al (1984, pp 53-54) are likely to fail.

In fact, it appears that in the South African environment the trade unions are the first to hinder the implementation of participative programmes. Wickens (June 1989) ascribes this to the fact that the unions want more participation for the shop stewards and union representative and not for the shop floor employees. They feel that through participation their power and influence could be lessened rather than strengthened. They would have less control.

Critical to the success of participation and employee involvement is the supervisor - whether he or she has the right skills and attitude to handle their new role.

The reason why many companies' efforts have failed is because the supervisors on the shop floor have not been given the necessary skills to handle their new role. Often the best operator becomes the team leader or supervisor without necessarily having the leadership skills to do the job.

Furthermore, the longer-term success of employee involvement and participation is only possible if management changes other aspects of the work system to encourage the delegation of authority and responsibility, and the improvement of the content of the job themselves. Many programmes have failed because management was not prepared to support fully the spirit of the programme and to rethink other aspects of the work system.

Regarding the importance of worker participation Loubser (1989, p 2) said that a country with insufficient skilled labour, with too small a market to justify massive automation and a population suffering from too low a standard of living has no choice but to involve the worker in the growth of their business or slide back to being a third world country.

Although a great deal more could be said about employee involvement and participation suffice it to say that it has a crucial role to play, and forms an indispensible part of any productivity improvement programme.

2.5.3 Gainsharing and profitsharing

The idea of paying a bonus to employees based upon improvements in the operating results of an organisation is an old and well-established one.

Gainsharing plans have been used for years and there are many varieties. In many cases, they are simply economic incentive plans and are not part of a broader management philosophy regarding collaboration and participation. In these instances the plan may have some marginal value in encouraging co-operation among people. Beer et al (1984, p 145) believe that the real power of a gainsharing plan comes when it is supported by a climate of participation and when various structures and processes involve employees in decisions that will improve the organisation's performance and results in an organisation-wide bonus. The Scanlon plan, for example, involves more than a bonus based on company-wide savings in costs.

The Scanlon plan is a total, organisation-wide, productivity improvement plan. It focuses the attention of workers and management on productivity with everyone sharing in the benefits of improved productivity (Ross et al, 1986, pp 18-19; Welbourne and Gomez-Mejia, 1989, p 19-21; Moore and Ross, 1978, p 1). It has three elements: co-operation, involvement and the sharing-of-benefits formula.

The Scanlon Plan is undoubtedly the best known company or plant gainsharing plan. It was developed by Joe Scanlon, a union leader, in the mid-1930's. Scanlon believed, according to Lawler, (1983, p 147) that the opinions and ideas of people lower down in organisations were ignored, even though they were of value and that the average worker was a great reservoir of untapped information concerning labour-saving methods. To correct this situation Scanlon suggested that organisations used a suggestion system that involved an elaborate committee structure.

Moore and Ross (1983, p 17) later renamed the Scanlon Plan productivity gainsharing. They said that it involves a measurement of productivity combined with a calculation that offers a mutual stake in the sharing of any increases to total organisational productivity, usually with all those responsible for the increases.

Profitsharing on the other hand, is a system under which the firm pays a reward to employees in addition to their regular wages, based upon the profits of the company. While not output or input related, it is usually based on a definite formula specifying how much of the profit is to be distributed and how it is to be computed, usually at the end of the fiscal year (Welbourne and Gomez-Mejia, 1989, p 20).

Gainsharing approached in a participative way can create a fundamental change in the psychological and economic ownership of the firm. Therein lies its primary motivational and satisfaction value. However, only a management that embraces values consistent with participation can make it work.

Gainsharing plans depend heavily upon employee acceptance, input and co-operation to make them work. Which, in turn, depends heavily on a reasonably high level of trust and understanding on the part of employees. In a unionised environment this is difficult to achieve when the plan is management owned and management initiated (Hatcher, Ross & Ross, 1987, pp 155-157).

There are only a handful of companies in South Africa that have started down this road, probably due to a lack of know-how and because few success stories exist. Furthermore, it could also be because strong union resistance could be expected, the earlier costs could be greater than the benefits and the difficulty they anticipate with devising calculations.

Although in South Africa there are not so many examples where gainsharing has led to increased productivity, evidence exists in literature. Greater research and experimentation however need to take place in South Africa.

Progressive management in the nineties faces the challenge of addressing the productivity lag through the improved use of all resources in the organisation, including human talent. Although the entire organisation will be involved in a productivity effort, the responsibility is primarily management's, because top management alone can stimulate and sustain the drive to make more effective use of the abilities of every member of the organisation.

None of the interventions already discussed or those to come can be implemented successfully on their own, disregarding the others. They are all interwoven and to a certain extent interdependent. Neither does the researcher want to create the impression that the productivity improvement programmes discussed in this chapter are out-dated, or no longer of any use.

Also there is no best system or organisational design. What is best for one company may not be best for another company. Each company must seek its own solution.