

The myth of the self-regulating work group

Volvo was only one of the many organisations which experimented with autonomous work groups in those heady days of relatively full employment and industrial democracy theory. Not only has life changed since then but enough time has elapsed for the defects as well as the benefits of work restructuring to be apparent. Here Peter Needham describes and evaluates the experience of a well-known European multinational

During the mid 1970s many manufacturing organisations were faced with seemingly intractable personnel problems which had their origin in social and industrial conditions far removed from those of today. Many faced recruitment difficulties which were exacerbated by high labour turnover; industrial relations problems were accentuated by conditions of relatively full employment; and political developments suggested that the concept of industrial democracy was about to be moved from paper theory to industrial reality.

It was against this background that a number of assembly industries took a hard look at work structuring. Early experiments, such as those at Volvo and others on the continent, suggested that reorganisation of semi-skilled assembly work in such a way as to increase the scope of the job could improve job satisfaction for the operator. Success was claimed in some cases in reducing absenteeism, improving quality, reducing labour turnover and improving the overall industrial relations climate.

Considerable hopes were pinned on these reorganised methods, particularly by personnel and industrial relations specialists seeking long-term solutions to the traditional problems of running efficient assembly lines in post-war British industry. Work structuring seemed to get to the root of the problem in that, as research was increasingly demonstrating, most workers wanted more say in the day-to-day matters affecting their immediate working environment and were largely indifferent to the wider implications of industrial democracy. Moreover, enlarging semi-skilled jobs might bring other benefits. Greater self-regulation might enable factories to run with low levels of overhead; for instance, fewer line supervisors or quality control staff. The question was whether

the assembly worker would respond positively to such unaccustomed freedom.

The case study given below describes an attempt in 1974 to reorganise assembly work in a medium-sized engineering company, and follows through its successes and failures up to the present time. It will be seen that work structuring in such an environment offered major benefits both to the company and to the individual operator but that, in order to sustain these, many traditional elements of control had to be restored. In the longer term, self-regulation, particularly when applied to work rate, quality and attendance, proved to be something of a myth.

The company concerned was part of a European multinational group, and was engaged in the design, manufacture and assembly of a range of domestic appliances. The management was progressive in its outlook, but operated in a fiercely competitive market, in which price and quality were of vital importance. In 1974 a decision was taken to manufacture a new range of appliances aimed at a growing UK and export market, which would provide the company with a much needed factory load.

Following lengthy discussions, a decision was made to assemble the new product using self-contained work groups rather than the assembly line techniques used for other products in the factory. This was done for a number of reasons:

- There would probably be a requirement for up to 60 'versions' of the basic design. The disruption to an assembly line of constant re-balancing would be considerable, whereas the work structuring concept implied great flexibility.

- There was traditionally a very low level of unemployment (less than one per cent up to 1980) in the district, and the industry with low profit margins had never been amongst the highest payers. The implication was that, whatever production system was adopted, it would have to be manned with assembly workers of varying ability and age range, and would have to be acceptable to women as well as men.

- The growth of industrial democracy suggested to management that 'line assembly' had a limited lifetime in the UK. It was also thought that production lines might be impossible to staff adequately on shifts because of absenteeism. If the product sold as well as expected, shift working would become essential.

- The market for these products was both cost and quality conscious. Therefore the system of production had to encourage responsibility for the quality of one's own work, and at the same time operate with the lowest possible overheads.

- Finally, the factory was proud of its record in industrial relations and promoting good conditions of employment. As an example of this, there had been no recourse to external disputes procedure with the main manual union (AUEW) in 20 years, with most issues being settled between stewards and superintendents. A strong 'consensus' style had built up over the years, and work structuring seemed consistent with this style.

The basis of the new assembly system was the 'module'. This term was adopted to describe a group of five (later six) assembly workers of compatible personalities and of similar age range and ability who agreed together on the rate of work and degree of responsibility they wished to 'contract' for. These factors in turn determined their

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piecework earnings. The payment system had two main components: a basic 40 hour dayrate and a payment by results bonus. The latter was based on two variables, whereby modules could opt for one of three levels of productivity and also for one of three levels of responsibility:

Basic, where each operator on the module performed a limited range of assembly tasks and passed the product on to another operator, who carried out the next stage of assembly. In essence the module operated as a mini assembly line.

Advanced, where each operator in the module assembled a complete product.

Exemplary, where, in addition to assembly through all the stages, the module achieved exemplary levels of attendance, quality and flexibility. This would include, for instance, absorbing waiting time and achieving low scrap levels.

Productivity was measured using advanced work-study techniques which related each stage of assembly to an effort rating, using appropriate allowances for relaxation, breakdowns and other contingencies. However, an important part of the arrangements from the operator's point of view was that, once the modules had completed their contracted number of machines, they could clean up their work area and spend the rest of the shift socialising. This system in time tended to encourage a high level of output in the early part of the shift in order to accumulate free time in the afternoon. The payment system at the outset was geared to encourage self-reliance — hence supervision was tacitly encouraged to 'make up' bonus earnings even where actual performance fell below contracted levels, rather than reduce pay to the level actually earned. This was because (at least in theory) the goodwill thus generated could be called upon when extra co-operation was called for — for instance if components were sub-standard and assembly more difficult.

Signs of success

For a period of almost five years the system worked very effectively under the influence of enlightened supervision and an ever-expanding market. From 1974 to 1979 output of the product quadrupled. Operators expressed satisfaction and the product was profitable. There were by this time more than 200 operators employed on modules. The modules had shown themselves to be extremely versatile. For instance, additional versions could be added to the product range with the minimum of disruption to production by the simple device of having one module specialise in that version. Labour flexibility represented little or no problem and the system was particularly useful when redeployment problems arose from other parts of the factory in that with such a large number of modules the range of employable people was very wide indeed. Any personnel officer familiar with the great difficulties encountered by many older employees in medium to heavy assembly jobs could recognise the major benefits of the module concept. Not surprisingly, operator satisfaction was very high and labour turnover was minimal.

At this stage any assessment of the reorganisation would have been likely to conclude that it had been a success. From a risky start the new product had established itself and was taking a high market share. Projections for future growth in output were made, and suggested that a factory

extension would be needed to cope with demand. There was little doubt that the module system had played an important part in the success story. However, it was not an unqualified success.

Problems

First, absenteeism had been steadily growing from seven to eight per cent in the late '60s to 11-12 per cent by 1978, especially with the advent of full 'staff' conditions for all employees. Certified absences and night shift absence were the main problems, but an analysis in 1979 showed the average operator taking five weeks sickness absence per year, with no correlation with age or known serious illness. However, absenteeism was clearly a shop-floor problem — white collar staff seldom recorded absence levels higher than three per cent.

Although recruitment into modules was easier than on lines, it was also becoming difficult, and consequently standards had been somewhat lowered. In addition, a small machine shop elsewhere in the factory had been closed and the operators, mainly elderly or disabled, had been found jobs in assembly modules. Hence the proportion of modules opting for high productivity was decreasing, and the bonus 'slope' was simply not attractive enough.

Thirdly, work study rates were becoming slack, partly because of increasing operator expertise with what was now a well-established product and partly because of a shortage of experienced work study engineers to keep up to date on the effect of design changes on the rates. The rate of introduction of minor design changes, coupled with the large number of versions and of modules, imposed a great 'maintenance' burden on the work study department, which not surprisingly fell behind.

The result was that operators were finishing the contracted number early in the afternoon. This problem could not be tackled by opening up the earnings ceiling because of differential problems between top semi-skilled and bottom skilled rates, and also because of tight central management control over pay increases. Incomes policy exacerbated this situation and reduced further the incentive element of pay as a proportion of total earnings. In simple terms, it was just not worth the extra effort to produce more when an average card player could make more money using his spare time in the tea bars. Finally, the extent of supervision's willingness to 'make up' unearned bonus had become a serious problem, undermining an already unsatisfactory incentive slope.

At this time management began investigations into introducing an added value bonus scheme, such as had been introduced in other factories in the group. It offered a means of paying more, and could hence help recruitment and retention, whilst providing an incentive for accepting change — in particular to encourage the semi-skilled workforce to accept tighter rates of work. However, by the time the scheme was ready for introduction, the onset of the recession had considerably changed these problems — recruitment was no longer an issue, changes could be more easily introduced in working practices and manning levels, and moreover factory added value ratios had taken a severe knock with the loss of business which meant an added value bonus could only have been generated by using an artificially low baseline.

Some managers were by now becoming visibly disillusioned with the module system. Support

departments such as quality assurance and materials management had always found the system irksome, since autonomous work groups tend to demand more attention from the services. This applies particularly to stock control, storage or work in progress, quality assurance, production engineering and financial control. Although direct supervision could be kept to a minimum, the modules consumed a lot of time and energy of support functions.

Traditional solutions

The upshot was that management began to examine some more traditional solutions. The external climate was gradually changing and a tough management stance was seen to be appropriate.

The productivity problem was partially tackled in late 1979, when a productivity clause was agreed as part of the annual wage negotiation. Under the terms of this agreement, the annual general increase was subject to a number of conditions including a complete re-timing of all assembly jobs. This entailed increases in output of between 10 and 60 per cent for the modules, depending on how much 'slack' was found in their rate. At the same time the piecework incentive was restored, with a 'dog leg' incentive slope which doubled the piecework earnings above a certain level of output. Also appeals for better attendance were issued, including a letter to each employee about the effect of absenteeism on the business.

The productivity deal was resisted strongly by the manual unions, who wished to trade increased pay for increased productivity on a one-for-one basis. However, they eventually agreed reluctantly to a 17 per cent pay increase, coupled with a tightening of rates by an average of 30 per cent.

By mid-1980, the situation seemed to have improved, with output increasing by 20 per cent over late 1979 with substantially the same workforce. The impact of the recession was probably somewhat delayed because the product had a seasonal aspect to sales, and high stocks in the early summer of 1980 did not cause undue concern. However, by July, stocks were equivalent to six months production and a series of steps had to be taken to reduce production and increase efficiency. The main measures adopted were as follows:

A redundancy exercise was carried out on a selective basis. First, the evening and night shift activities were reappraised. Night shift working was clearly one-third more expensive in basic wages alone because of the premium element. Coupled with this, however, were high absenteeism, high turnover and little commitment to the factory's overall objectives. The evening shift reappraisal proved more difficult because of a belief that part-time women, usually with children at school, might be persuaded into a seasonal pattern of work with a long summer lay-off. The beneficial effect of this on summer stocks might make this kind of work pattern attractive to the company even with 20 per cent shift premium. However, strong union pressure was exerted to protect full-time jobs rather than part-time.

Redundancy was carried out on day shift on a selective basis, and supervision and the union were consulted closely on questions of capability, flexibility and commitment. A points system was devised, and accordingly a considerable number of semi-skilled with well known problems of poor

attendance, output and quality were selected. A conscious decision was made not to select serious ill-health cases for redundancy, since those were best tackled under sickness payment and if necessary early retirement provisions. However, two shop stewards who had led the battle against the productivity deal in 1979 were included in the list.

The absenteeism problem was solved by a combination of selective redundancy and blanket use of the disciplinary procedure. Employees with three spells or more of absence (irrespective of reason) were issued with a first formal warning, on the basis that attempts to resolve the problems by traditional methods had brought no improvement, and that by now the survival of the business was at stake. Interestingly, one of the company's main competitors announced a complete suspension of their sick pay scheme at the same time. Accordingly, almost 25 per cent of the total semi-skilled workforce were seen by the personnel department and issued with a first formal warning, irrespective of reasons for the various absences. An undertaking was given by the company that before any individual progressed to a final warning, a thorough investigation of the background circumstances would be conducted.

However, in the following six months no-one needed to be seen again about absence, and the level reduced to under three per cent — less than a third of the comparable 1979 figure.

Re-rating of jobs by work study engineers was continued and ran into increasing shop floor resistance. Two national level conferences were held before some of these new rates were agreed, and shop stewards began to demand more say in the rating of jobs.

However, there was no appetite on the shop floor for serious resistance to those various measures. Communication exercises were conducted in which supervision explained the need for improvement in efficiency as part of the requirement for survival. Instinctively, the shop floor accepted that the old state of affairs could not continue but it was clear that these measures had opened up shop floor/staff divisions which had previously not been so acutely felt.

In retrospect, management concluded that if autonomous work groups were to remain a serious alternative to traditional assembly lines, a very disciplined approach was going to be needed. In particular some of the more traditional management controls and functions would have to be retained to ensure that the benefits deriving from greater job satisfaction and greater flexibility were not obtained at the expense of efficiency and operating costs. In increasingly difficult trading conditions, there is clearly no room for any slackness in approach to costs: moves towards more socially advanced conditions need to be carefully monitored so that additional costs are not incurred.

Autonomous groups working is still a serious alternative to repetitive line assembly in a society which continues to dislike the dehumanising influence of many traditional assembly methods. But in the struggle to retain market share such concepts will need to be stripped of woolly idealism if they are to prove effective. In particular, the idea still embraced by many personnel managers that job redesign leads to greater self-regulation looks increasingly dubious. □