"CONTEMPORARY CHANGES IN JOB AND WORK DESIGN REFLECT THE EMERGENCE OF A NEW LABOUR PROCESS, WHICH IS DISTINCTIVE FROM TAYLORISM, BUT WHICH REMAINS INIMICABLE TO EMPLOYEE INTERESTS"

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INTRODUCTION

The major movement which emerged concerning job design in industry and services in the 1970s seeks to redesign jobs so as to motivate employees to higher performance. This movement, it is widely accepted, was a response to worker discontent and alienation.

Many new initiatives in job redesign, it is often said are employer responses to cost pressure and competition in product markets.

The aim of this study is to examine the major movement and tendencies in work design including the traditional and human relation approach to job design.

This study is also to focus on the recent development in job design and the emergence of a new labour process.

THE TRADITIONAL APPROACH TO JOB DESIGN

The economic principie of production is said to be the division of labour. Adam Smith argued that labour productivity increases as a result of this division. Basically, there are three main reasons which can be summarized as follows: first of all, labour productivity increases primarily due to enhanced specialised dexterity; second, work preparation time is saved; third, the design of machinery become significantly specialised. To the extent that as suggested by Charles Babbage, this division of labour produces a link between status and pay differences. Therefore, the division of labour brigns about labour cheapening and a process which is assisted by the reduction in the learning time for jobs and by weakening the bargaining power of workers (Kaplinsky (1988), Kelly (1982)).

So far as job design is concerned, the main development as a traditional approach was scientific management associated with F.W. Taylor. He claimed some major principles in his work. Firstly, according to Taylor, manual and mental work should be separated. Secondly, the optimum degree of task fragmentation should be provided by breaking down complex jobs into their simple component parts. Accordingly, the division of labour should give rise to the separation of 'direct' from 'indirect' tasks including machine set-up, preparation, maintenance and repair. Finally, management specify the tasks of workers in detail. They also select and train employees in order to carry out the fragmented tasks and reward them for above average performance. It is important to stress that task fragmentation can cause several advantages for employers. For example, expensive and time-consuming training are not required for individual workers, moreover, specialisation in one small task makes employee work very fast. Less skilled work is also lower paid work. In a similar vein, the fragmented specialization and low discretion in job design has been criticised by many Marxist writers. They sttres that the deskilling approach has been succesful in benefiting the employer at the expense of the worker's market value and personal well being at work. That is to say, it can be seen as an exploitation of the worker. This sort of work design technique has also been succesful in reducing costs, raising productivity and enhancing a rate of profit.

A number of commentators from a variety of perspectives have put forward the view that the fragmented specializations mean that jobs are tightly controlled by management by close supervision or a machine technology which does not satisfy employee interests. Some research done in America indicated that employees in machine paced specialized assembly jobs suffer from particularly high levels of psychological strain. What is so significant about this comment is that employees are in need of more interesting work. However, although a great deal of attention has been paid to specialization, most writers supported the humanistic approach have not concentrated on autonomy and responsibility in the workplace.

Furthermore, it should be mentioned that task fragmentation makes the work repetitive and boring. This can also lead to apathy, dissatisfaction and carelessness. Therefore the main criticism on Taylor's work is that it lacked any sustained attention to human needs other than those concerning money and rest.

Taylorist approach to work design seems to have created fragmented and dissatisfying jobs which was not combined with empoyee skill, commitment and high performance (Kelly (1982), Buchanan (1989)).

Taking long term employee interests into account, there was no place for collectivism and unions in Taylorism.

As far as labour process is concerned, there is a need to analyse Fordist labour process. It is a fact that the division of labour and mass markets were realised by Henry Ford. This model of production based on the realm of moving production lines, specialised machinery and standardised products. One of the key consequences of Fordism is that the pace of work is controlled mechanically and not by workers. In addition to this, associated with the new fixed speed moving assembly line was an accelerated division of labour and short task-cycle times. However, having developed a new industrial technology based on the flow-line principle and extreme job fragmentation, Fordism found difficulty to control the work force. Worker rejection of the new job processes had led to the high rates of turnover, absenteeism and insufficient effort., Therefore, Ford developed the control techniques which was different from Taylor's principle in some respect including a large material inténtive for altering their private lives as well as their work behaviour and a workers' bonus access to company loans. In general, as Braverman argued, those labour processes developed a specifically capitilist mode of management which exercised control over the labour process (Littler (1985), Kelly (1985)).

In short, taking higher productivity and reduced unit costs into consideration, it is, crucial, though, to stress that the extensive application of division of labour throughout the manufacturing industry has widely produced substantial economic benefits. However, despite some economic benefits, traditional labour process gave rise to psychological costs such as reduced job satisfaction, labour turnover and higher absenteeism. This is why attention has been drawn to a number of theories of job design in recent years.

HUMAN RELATIONS APPROACH TO JOB DESIN

The late sixties and early seventies the problem of Taylorite strategies had been witnessed, such as the expansion of organisational complexity to handle fragmented work, the under-utilisation of worker initiative and worker dissatisfaction. Therefore, a new job redesign movement based on quaity of working life emerged as opposed to Taylorist principles.

Theorists like Herzberg and Maslow put forward the view that there is a relationship between motivation, job satisfaction and job performance. Motivation theories suggest that an individual's behaviour at work will be directed towards satisfying some needs. If a job is designed so that these needs can be fulfilled then the employee will perform to a high standard because he is satisfying personnel as well as organisational requirements. It is quite correct to say that motivation theories generally concern about job satisfaction rather than productivity outcomes.

Now it is time to mention the other work-design techniques like job rotation, job enlargement, job enrichment and autonomous group working. These job designs are not only directed by the use of motivation theory and work characteristic which motivate but also directed by considering the other factors such as technology, union and employee attitudes and level of mechanisation.

There is not much disagreement that these several theories of job design focused on the consequences of reversing existing division of labour and putting a link between the economic interests of employers with the psychological concerns of employees. In other words, these work design techniques would provide heightened motivation and satisfaction for the employee through the enhanced variety, autonomy and responsibility in his job. On the other hand, employer benefits would increase including productivity and economic gains.

The major work-design techniques can be summarized as follows: Job rotation involves the movement of employees from one task to another, basically to reduce monotony by increasing variety. in job enlargement, two or more specialized jobs are merged in order to provide a worker with a wider range of tasks to perform. Here the main aim is again to increase the variety and meaning in repetitive work.

After the second World War, what was required was a change in the managerial process. Management became aware of the hidden costs of monotonous work which created dissatisfied workers. For this reason, job retation and enlargement were seen as a way of reducing the costs of turnover, absenteesim and mischief. Some experiments in job enlargement at IBM and Philip companies brought about both improved productivity and greater job satisfaction. It should be added that economic factors including productivity and scrap rates showed little improvements.

Some commentators like Frederick Herzberg, Louis David argued that job enlargement and job rotation do not substantially increase the intrinsic quality of a person's work, therefore, they are not likely to cretae a job which is satistying and motivating. And then the concept of job enrichment was suggested. Job enrichment involved what is called 'Vertical job loading factors' by Herzberg exercising some control on employees, increasing individual accountability for work, giving employees complete or additional authority (Child (1984), Buchanan (1989)).

In short, job enrichment is said to have been a move away from both high specialization and low discretion.

Among the variety of approaches to job design one of the most important ones developed by the Tavistock Institute of Human Relations in London is a socio-technical system. Briefly, the essence of this approach is the recognition to achieve its primary task the technical and the social components of the overall system must be designed to take each other into account. What should be noted, though, is that autonomous groups came as part of a package of socio-technical systems. The socio-technical systems research examined the possibilities of creating a social organization of work based on self-regulating groups of employees. The best known of these studies were in British coal mining and Indian textile mills. In these cases, work groups were responsible for production and for the allocation of individuals to jobs. Therefore, the level of specialisation could be determined by rotation or enlargement in terms of group member' preferences. The economic benefits of the change to work groups or teams not only included this greater flexibility of labour deployment but also higher productivity, lower absenteeism and higher job satisfaction. Moreover, autonomous group working was used in Scandinavia as well, including the Swedish car manufacturers such as Saab and Volvo. It is a belief that autonomous working groups is not only allowing the job to be enlarged but also allowing employees to have responsibility for basic management activities, including deciding the methods of work and the scheduling and planning of work. The realities of commercial and manufacturing life means that the unit of work becomes a small work group of more or less six employees whose schedule, plan and execute complete assemblies or whole units of work (Robertson and Smith (1985)).

A parallel movement towards devising work groups organised around 'whole tasks' which can be carried out relatively autonomously is the 'group technology' approach increasingly initiated by work engineers. Wolkswagen can be shown as an example of this approach. However, it should be said that the Woikswagen experiment failed. This was probably due to the cost of the system and a dispute between union and management (Littler 1985, Child 1984).

Generally speaking as Kelly (1982) argued that job design trends offer a rejection of Taylorist principles and he divides job design attempts into three major types, first of all is flowline reorganization. It involves the individualisation of tasks which fits the Taylorist principle. The second is called a 'Vertical role integration'. Workers take over tasks previously done by the supervisors, which also fits Taylor's principle as a means of giving as much work as possible to the cheapest category of labour. Finally, flexible work groups which is a move away from Taylor'st principles is the third type of job design. He goes on commenting that flexible work or autonomous groups which is a means of managing both product and labour market contradictions relating to the labour process.

It is always necessary to raise the question: What is the political significance of job design in the light of the issue of labour process? A number of criticisms has already been made for job design techniques. Braverman points out that capitalist management practice give rise to an increased management control over work and workers mainly over the labour process. One can also argue that in spite of the fact that these job design techniques have had some success in improving the quality of the working life, in reducing absenteeism and labour turnover and in increasing productivity at least in the short term and quality of work, hey have not been successful in emphasising control and in responding long tenn employee interests.

Many observers believe that managerial prepogative or management style can be affected while employees increase their knowledge and discretion. However, Taylor's principie were minimum skill, minimum knowledge, minimum pay and dependence on management. This enables management to reinforce their status and give high levels of control over work methods and the pace of work.

It is worthwhile stressing that according to Friedman's conceptualization, there are two types of strategy. One of them is direct control which usually deseribes Taylorism (separation of conception and execution, centralization of conception and close supervision and pay incentives). The other is called 'Responsible autonomy' which can be deseribed as consisting of worker discretion and commitment to capitalist objectives, as conselling, improvements in social relations and as the concession of improved material benefits such as high wages and incentives, working conditions and job security (Wood S and Kell J (1982)).

Yet, in the analysis of responsible autonomy what needs to be considered is that actual environment and enlargement techniques in practice often involve little real autonomy. Nichols and Beynon (1977) argue that there is no fundamental change for workers in their power of decision making or work conditions. Overall control of the labour process leads to the use of autonomy as a means of self discipline.

It must be kept in mind that Marxist analyses for job design is that job design possesses an intrinsic or essential, political significance, and the notion of control in the labour process as an undimensional, zero sum concept. Also for some trade unions job design techniques is regarded as a part of a capitalist strategy in order to control the workforce. For example, French trade unions do not prefer co-operating with capitalism in any way. This is why work design applications were hardly observed in France. Some would also argued that in the USA job design has been pioneered by some consultants as a way of undermining trade unions (Kelly 1982).

In short, management usually used initiatives in job design by describing them as enrichment, autonomous groups and the like, while reorganizations of the labour projess were essentially technical responses to cost pressures and product market competition, rather than efforts to deal with human motivations and needs.

Having examined some approach to job design, it is also crucial to discuss recent development in job design and labour process.

RECENT DEVELOPMENT IN JOB DESIGN AND LABOUR PROCESS

Recent innovations eable many commentators to argue that in the 1970s job design has been considered as a response to the problems of turnover, absenteeism and so on. However, the last decade has witnessed some changes in job design which also reflects the emergence of a new labour process. It should be said that the concern with job design in the 1980s has been product market competition. Basically, the global system of Fordist production was in crisis. It also reflects problems which are indigenous to the Fordist labour process. Therefore, after the weaknesses of this labour process is widely recognised, many finns attempt to move to a new labour process such as JIT (Just-in-Time), flexible specialisation.

One of the newer debates on labour process is flexible specialisation. According to Piore and Sabel, flexible-production districts are characterized by highly skilled workforces and integrated networks of small and medium-sized enterprises which both compete and co-operate by sharing information and expertise. Moreover, information can flow easily both within and between finns, making both enterprises and entire districts answer quickly to external technological and market conditions. Essentially it makes a number of connections between markets, technology and work organisation. These changes can sometimes be regarded as 'neo-Fordism'. A new process between production and consumption become crucial by providing more flexible and decentralised methods for both workforce and technology to match differentiated and turbulent markets. Meanwhile, forms of advanced manufacturing technology including flexible manufacturing system is applied in order to meet shorter set-up times and have an effect on labour productivity. It has also been claimed that flexible specialisation enables workers' commitment to quality work, encourages self-discipline and autonomous decisions and lead to decentralisation of responsibility for

a continuous flow of production (Streeck W and Sorge A (1988), Kenney M and Florida R (1988).

The second consideration on a new alternative labour process is the labour process and the social organization of Japanese production. There is no doubt that flexibility is again the main issue in the Japanese labour process. This new Japanese production replaces the task fragmentation, functional specialization, mechanization and assembly-line principles of Fordism with a social organization of production based on work teams, job rotation, flexible production and so on.

A key feature of Japanese style management is Just-in-Time philosophy based on improvement of productivity and eliminating waste by using a minimum amount of facilities, equipment, materials and human resources. In other words, the idea of Just-in-Time (JIT) is that goods should be produced Just-in Time by involving a scheduling system, where stocks are supplied only when they are needed and work in progress is closely controlled. Furthennore, the system is dependent on the balance between the supplier's flexibility and the user's flexibility and also it requires a great deal of employee involvement and group work in order to make the production process work effectively (Oliver and Wilkinson 1988).

Let us not forget many Japanese companies have achieved flexible through methods of organising production such as JIT. The purpose of the JIT system is said to increase productivity not only by super-exploitation of labour but also by increased technological efficiency, heightened utilization of equipment, minimal scrappage, decreased inventory and higher quality. It is admitted that there is an important link between JIT production system and subsidiary companies, suppliers and sub-contractors.

JIT system seems to represent a major break with the Fordist system. Therefore instead of an increasing division of labour into specialised tasks, workers are expected to perform a range of jobs. It is a fact that the nature of the JIT labour process including production is demand driven, flexibility in product and process, multi-skill and multi-task work, zero-defect policies, giving responsibility back to the 'detailed worker' and worker involvement in technical improvements is a radical departure from the Fordist system and an significant separation from Taylor's principle. duction techniques., management prerogatives are widely unlimited. In this model, sweeping rationalization of poduction and the super-exploitation of labour becomes important. Dohse et al also goes on saying that JIT should not be regarded as an alternative to Taylorism but rather a solution to its classis problem of the resistance of workers to placing their knowledge of production in the service of rationalization.

It has also been claimed that under JIT system, the implication of the key feature of JIT including teamworking, multi-machine running and the like makes employees move between different activities as the wrkload dictates. In this system, the cost of production irregularities are efficiently moved on to the worker. There are social pressures among the work group to maintain the continuity of production. Tumbull (1989) and Sayer (1986) stress that although there is a greater emphasis on developing behavioural skills compatible with the productive objectives of the form, there is no any reskilling of the workforce or any greater degree of employee autonomy. It must be emphasized that these new techniqes allow management to redefine the level of work effort and customary levels of active co-operation by teamworking and the other practices which usually by-pass the channels of trade union representation.

Furthermore JIT is said to require new industrial relations practices such as the more 'rational' forms of worker representation by undennining the basis if multi-union representation. One would also mention that as a result of Japanese production methods, work in large Japanese factories is subject to speed-ups, understaffing and other undesirable conditions. Besides, JIT rely on continual and controlled pressure, so, the casualties of intense work pace, excessive workloads, and limited cover for absentees and injuries are well-documented for Japan, Britain and the USA (Kenney and Florida 1988).

According to the case studies of Williams et al (1990) in Nippon car, Japanese manufacture, Nippon car has an extensive control over the workforce. For example, the company's QC's punish workers who have had traffic accidents as private individuals in their own time off compay premises. The other kind of punishment also can be seen in the case of Nippon car, such as a short hair cut. Besides, at Nippon car all manual workers have to meet the standards of work effort and time commitment and also Just-in-Time system force all workers to intensify their effort in order to meet production targets and they are expected to sacrifice free time to the company (Williams et al 1990). It is claimed that under Just-in-Time (JIT) environment workers are like servers in a fast food restaurant. Many observers have noted that a JIT system requires an important degree of employee responsibilities, commitment, co-operation and self-discipline.

In addition, Turnbull and Tailby (1987) studied two British companies which are moving towards JIT production and then they concentrated on four elements of employee motivation: job content, supervision, payment systems and job security. In brief, their finding is that the new arrangements in work design could mean more stressful work. For instance, responsibility for quality represents more of a burden than the enrichment of the job and both companies are intended to increase utilisation of labour. It must be emphasized that the introduction of more sophisticated management information system has restricted the scope for the exercise of employee initiative, while traditional forms of direct supervision have been retained, as a result, in can be said that the companies have not secured greater employee involvement yet. Both of the case study firms have introduced new payment systems in order to improve product quality and labour productivity. The result cannot be expected to produce a Japanese type of model. Because of the different of the nature of Japanese payment system. Moreover, although job security is probably the major source of employee commitment, both companies were forced into major redundancy programmes in the early 1980s.

It is also important to mention that in 1986 a strike at Lucas Electrical swiftly led to 12,000 lay-offs at Austin Rover, largely due to the adaptation of JIT supply and the Ford strike in Britain in early 1988 brought about the laying off of thousands of workers across Ford's European plants within a few days. This was also primarily because of the adaptation of JIT practices (Littler 1985).

Kelly (1980) argued that there are three types of costs of redesign for employees. They are as follows: labour elimination, labour intensification and enhanced managerial control. The displacement or elimination of labour is seem to be a significant phenomenon in job redesign. According to some figures, for every 80 jobs redesignated almost 20 have been lost (Kelly 1980). Labour intensification is also associate with job redesign. For example, in the case of autonomous work groups, the pre-condition for labour intensification in this type of job redesign is the breakdown of job demarcations and the assignment of responsibility to all work group members. Labour is deployed between jobs as required, thereby raising the overall intensity of labour. What it also suggests is that some writers concentrated on the issues such as the economic context, stress and the impact of technology as a result of job design. Therefore, particularly the issue of stress in the shop floor became very important.

Buchanan (1989) argues that stress has started to receive widespread management attention in the mid-1980s because of the cost of stress. For instance, the current costs of stress-related illness in Britain is estimated at about \$9 billion a year, compared with \$66 billion in America. Stress also gives rise to alcoholism, mental breakdowns, ulcers and drug dependence. It is hardly surprising then that this can have an important effect of employee behaviour and performance. This is why, US and Canadian companies have been keen on running health and fitness programmes for employees to help reduce stress. However, British managers have witnessed to be less concerned about the health of their employees. Furthermore, new technologies have led to new sources of stress for those who have to operate them. For example, work at computer terminals can r esult in eye strain, headaches, arm and shoulder pains. Some recent studies in Japanese offices and factories also show that using new computing technologies brings about the high incidence of eye fatigue and shoulder pain and nervous and digestive disorders to working with advanced automation, especially among women.

CONCLUSION

In this study Taylorist (scientific management) and human relations approach to job design, first, has been examied. Then recent development in job design and labour process has also been discussed. It can be argued that until the 1980s, job design has been applied as a response to problems of turnover, absenteism and strikes. A number of critics of job design have worked within a similar framework, and confirmed that there has been too great an emphasis on economic benefits in terms, for instance, of higher productivity and reduced unit costs. Therefore it is quite correct to say that the securing of such benefits has been the real aim of job design, in spite of the language of job satisfaction or self actualisation. It should also be noted that job design has been considered as the economic interests of employers with the psychological concerns of employees. Economic benefits which might accrue to employees was not mentioned.

The traditional approach to job design concentrated on the division of labour, job techniques, task performance, training and incentive payments systems. Human relations theorists argued that such mechanistic arrangements lead to worker dissatisfaction and low productivity human relations suggest a redesign of jobs in ways which perform individual worker's needs for social recognition, self esteem and personal achievement. However, this approach ignores the fact that external and environmental factors may have influence on wok design such as changes in the structure of markets and also it is not always true to treat people as self-interested units who behave individualistically to secure these personal needs. In brief, both traditional and human relation approach believe that technical solutions can be found to the managerial problems of and control through an appeal to the individual economic of psychological self-interests of labour.

It is important to stress that Fordism also became a distinct labour management strategy. It required the re-organisation of the entire factory although it took over the basic job design dynamics of Taylorism, it involved non-Taylorite control techniques. Both Taylorism and Fordism spread in the mass production industries. However, the 1970s witnessed many problems such as the accumulation of labour problems, change in product markets, more importantly necessitating greater flexibility with emphasis on quality and reliability which led to a crisis for Fordism. Proadly speaking, attention has been drawn to examining job redesign in the context of technological innovation, changing products and labour markets in a period of the intensification of international competition.

In the late 1970s and early 1980s a new job design approach and labour process emerged such as flexible spelisation and JIT system. Some argue that this new flexible labour process makes greater demands for the two-way flow of information and provide greater autonomy for the workforce, compared with the other capitalist labour process. It is also advocated that companies adapting new fonns of work organisation are unambiuous that the transfer from single to multi-tasking, from deskilled to multi-skilled work and from different status to 'single status' represents a substantial improvement in the quality of their working lives. However, it is obvious that new labour process such as JIT production system also presents several inherent problems for trade union organisation and interest representation.

The management's concern on team working, employee motivation and high performance levels is not solely due to the welfare or job satisfaction of the workforce, rather, they are in need of breaking down the rigidity of existing production systems and to restore the companies to a situation of profitability and growth. For example, JIT production systems are highly oppressive, often securing high levels of productivity by overtly coercive means. Some commentators have noted that a new labour process causes continual and controlled pressure over workers. One can call this trend 'management by stress'. It is also accepted that the emergence of a new labour process gives rise to labour elimination (job losses), labour intensification and enhanced managerial control. The increasing managerial control of the labour process results in productivity and profitability. Therefore, it seems safe to argue that the emergence of a new labour process is a response to employer interests rather than employee interests.

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