Workers' Participation in Industry : Concept and Reality

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The 1970s have witnessed a new style in the development of labour policies in the country. Almost since independence, in fact even prior to it, the forum for discussion on matters connected with labour used to be tripartite in the form of Indian Labour Conferences and the Standing Labour Committees. In the periodic meetings of such tripartites all matters which had implications for the life of work and life of leisure of the working class used to be debated and the consensus at these meetings was a useful touchstone for the Government in reorienting its policies and revamping administration. Whenever necessary, the Ministry of Labour invited other ministries to throw light on specific issues raised either by employers or workers; in the process, other ministries got acquainted with the views of organised employers and trade unions. This consultation did provide a firm basis for the country's labour policy both at the Centre and in the States. Similar periodic consultations at the State level made the tripartite forums even more broad-based. The arrangements, though not internationally unique, had some appeal to democratic countries in the developing world.

Urge for Bipartite Approach

The tripartite consultations seem to have fallen in disuse. More recently, even as pressures for reviving them were being built up, compartmental consultations with the Central Government by State Governments, employers, and workers' organisations have been taking place and even discussions between the main interest groups. These new discussion forums seem to be getting popular because of the results achieved through these consultations and the feeling within the employers and workers' groups that advice on labour policy, particularly in the field of industrial relations, should be more a matter for mutual discussions between employers and workers, with Government acting merely as a catalyst to bring the parties together. The current style of seeking ad-

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vice is not new; it was tried out on an experimental basis during the late 50s through what was known as the Joint Consultative Board for industry and labour, a bipartite arrangement for discussion of labour policies in addition to the tripartite forums referred to earlier.

This urge for a bipartite approach to labour matters seems to have resulted out of the feeling among the employers and workers that if production and productivity have to be at the optimum level, cooperation between employers and workers would be necessary at all levels : policy formulation, policy implementation and policy evaluation. In an arrangement like this there should be no place for taking differences to the stage of work stoppages, since these could be adjusted in a fair manner and without a feeling of bitterness at one level or the other. The arrangements envisaged for this purpose at present operate at the national level, at the state level and also for different industries for taking a national view of the industry problems. Important industries like textile, banking, cement, engineering, chemicals, plantations and sugar have bipartite committees at the national level. These are the apex bodies at the national, state and industry level. Some industry bipartite arrangements also operate at the state level. While industry bipartites and state level consultations could be considered more realistic, for a worker to perceive them as such, extension of these to the undertaking is essential. It is these free and frank plant level discussions alone that will pave the way for improved production and productivity. Though this has been an accepted position and arrangements had been worked out in the form of Joint Management Council, to be operated on an experimental basis during the 60s, the experimental stage was dogged by scepticism on all sides. Emergency Production Committees with somewhat restricted functions were proposed to be set up following the 1962 Emergency. These also, it seems, failed to thrive. A bold thrust was necessary to put all these experimental schemes on a sounder basis and to enlarge their coverage.

A Bold Thrust to Workers' Participation

The inclusion of workers' participation in the Prime Minister's 20-Point Programme has provided this thrust. The responsibility is now on the parties : the employer and the union to work out modalities to mutual satisfaction but within a broad framework developed at an appropriate level. The form which workers' participation should take thus became a

subject matter of detailed discussion in the national apex body. Some tentative ideas of how participation could be given a shape at the level of the undertaking were discussed and these have been incorporated in Government Resolution on the scheme in October 1975. The Resolution envisages workers' participation on the shop-floor and also for sorting out the problems at the level of the undertaking. While the intention of Government is not to put the scheme in a strait-jacket and to leave major initiative to the management depending on its own needs, the Resolution has provided a blue-print about how shop council should be formed and what the functions of the council should be. Similarly it has supplied details for Joint Council for the undertaking. It has given enough flexibility to the management for determining the size of the two councils, the only condition being that the councils should have no outsiders. The Resolution attaches considerable importance to communication within the undertaking and has expressed the hope that these bipartite forums, if worked in proper spirit, would ensure the involvement of workers in effective functioning of the unit, thus improving production and productivity.

The functions for the two councils have been well conceived. Emphasis is both on production/productivity on the one hand and safety and welfare on the other. The shop council is to be consulted on production targets, improvement in production, identification of reasons why certain workers are slack, help maintaining discipline, ensure appropriate working conditions and so on. Some of the functions at the Joint Council for the plant are similar; all inter-shop matters and matters not settled in the shop councils are thoughtfully included for discussion at the plant councils. Also consultation on manpower development, training and provision of incentives is envisaged.

Need for Adequate Communication/Education

If this arrangement is to succeed, its basis has to be adequate preparation on both sides. The preparation on the side of the employer/management will be to educate and reorient itself to modified notions of what were once recognised as management prerogatives. While some of these prerogatives may still remain, several others will have to be exercised in consultation with the appropriate councils. For instance, production targets were unilaterally fixed so far, but if workers are taken in confidence the task can be achieved more easily. Unilateral enforce-

ment of discipline may have to give way to disciplinary matters being settled in consultation with the bipartite forum as appropriate. What is more, the management will have to see that these modified ideas regarding prerogatives are communicated to other levels in management ranks. At times mere communication may prove to be inadequate; imbibing of communication may also have to be ensured.

For Unions, the preparations will be in the form of greater awareness of the workers' responsibilities and developing abilities in workers to make their participation in the consultative forums effective. Equally important is the knowledge of what to expect and what not from these participative arrangements. For all these, development of a suitable training programme for its nominees on the various levels of consultations will be necessary. As in the case of management, unions will have to ensure that the training imparted is suitably imbibed. This is no mean task for unions; it will test the organisational capabilities of their leadership in a different but significant area of trade union responsibility : contribution of organised labour in the task of nation-building.

Extending the logic of compartmentalised communications/education of the representatives from the management and workers group, it may be necessary to arrange a get-together at periodic intervals for nominess of both the sides in the consultative forums to get educated together in the tasks which are required to be performed. But who should take on this responsibility ? In terms of the unity of objectives for which the proposed scheme is designed, this responsibility could be of an institution which may be set up by either management or labour to train its respective groups but in the interim it is always useful to meet on neutral ground. There are enough institutions for the purpose, particularly in metropolitan areas. Because of the emphasis on production/productivity problems envisaged for discussion, the Local Productivity Councils should host these periodic bipartite training meetings. In several centres where these have been formed, there will be no problem to build up an *ad-hoc* training faculty for the programme.

Where an employer or association of employers works with a representative union, it would be useful to have both at the level of employer/s and the representative union some feedback arrangements particularly for plant level joint councils. Such feedback, both in terms of successes

achieved and obstacles that need to be negotiated, will help in providing proper guidance at the right time in order that participative management in any unit does not get bogged down. It may also help drawing up a panel of 'trouble shooters' to which a reference will be made later.

Participative Process : Role of Technicians

The seeds of participation of this type seem to be sown through the Industrial Policy Resolution-1956. The relevant paragraph of the Resolution envisages a role for the technicians also in the participative process. In several of the functions entrusted to the councils, technical problems are bound to arise. Giving a voice in the consultative forums to technicians is particulary important in matters concerning improvement in production and productivity. This said, that apprehensions in the minds of workers about technicians have to be taken note of. Experience in the past shows that technical personnel is employer-oriented and there is tendency among them to slur over difficulties pointed out by workers. It is possible that this feeling may have no basis in reality but what is important is that workers should feel that way. If, therefore, technicians are to form a separate component in the participative process, traditions may have to be established that in matters which are likely to be contentious, decision should not be taken if workers' group has strong reservations about the decision. In a scheme where so much depends upon mutual confidence, contingencies of this type should not be mentioned but one can always err on the side of realism. One could also say with hope that this will be an interim requirement till such time as the confidence of workers and the unions is restored in the fact that the advice of technicians is purely technical advice and not unduly influenced by management considerations.

Again, to be realist one should envisage that even with the best of cooperation from all sides there will be occasions when the two sides agree to differ both on the shop-floor level and at the level of the undertaking. In the former case the Government Resolution envisages reference to the higher council. If, however, differences are likely to foul up the environment at the undertaking council, it should be possible to envisage arrangements for seeking the advice of a third party preferably a panel on which there could be one nominee from the workers' side and another from management. The advice of this panel should be considered as

final. In a recent communication, the National Arbitration Promotion Board has sent for information of its members, the arrangements developed between the Mill-Owners' Association, Bombay, and the Rashtriya Mill Mazdoor Sangh, the representative union for the textile industry for the City of Bombay. These envisage a two-tier system for trouble shooting which is reported to have worked well in all contentious matters at the plant level. It should not be difficult to adapt the system to other areas/plants with such alterations as appropriate.

While one should not unduly formalise the arrangements of this type on the analogy that "industrial relations cannot be rigidly legislated", it may yet be necessary that at the undertaking level there should be an agreement drawn up between the employer and the union which will set out the functions of the two councils, their composition, the frequency of meetings and such other matters as the participants may consider important, with possibly a voluntary arbitration clause. Where at a centre there are an association of employers and a federation of unions recognised by the association, the two should come together and agree on a model agreement on the basis of which individual undertakings will draw up their respective documents.

To conclude, one would like to draw attention to the sentiments which were expressed in the first forum which discussed on a practical plane the arrangements for joint consultation—the Seminar on Labour-Management Co-operation (1958). Recorded the Seminar :

> "The seminar was convinced that joint councils will thrive only in an atmosphere of mutual confidence and goodwill. It took note of the gradual improvement in the attitude of employers and the trade unions towards each other, but felt that there was a need for continuous educative work both on the side of labour and management."

What was said then is true even to this date : there is a greater realisation of its relevance now than when it was first put on paper. □

Participative Management : Key to Abiding Industrial Harmony Through Qualitative Change in Labour-Management Relations

G. Ramanujam*

Industrial relations, both in private and public sectors, have been deteriorating since sometime past till the declaration of the Emergency. Although it must be said to the credit of both labour and management that whenever the nation was faced with an emergency or a threat to its security, both parties cast aside their quarrels, demands and disputes, and volunteered to co-operate and work without reservation for tiding over the emergency. Yet, once the emergency is over, the labour usually revert to their old ways of demands-and-disputes-oriented trade union movement, and employers to their short-sighted policies, with the result that dislocation in production becomes frequent. We must not allow it to happen again after the conclusion of the present emergency.

Basic Facts

There seems to be lack of genuine understanding of the basic facts. Those who invest capital think that they are the masters and that those who invest their labour are their servants, and the relations between the two are sought to be regulated on the outdated concept of master and servant.

The traditional thinking that those who invest capital are the employers is obviously wrong. Even the question "who is the employer ?" is an incomplete question. "Employer of what ?" must be stated in the question itself. It will then be found that while capital is the employer of labour, labour too is the employer of capital. Thus we will find in reality both capital and labour are mutually the employers and the employed. To extend this to the logical end, they will be found to be jointly the employees of the community, who is the real and ultimate master. Both

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labour and capital are, therefore, the co-servants of the community, whose interests they are to serve. They are, therefore, co-partners in industry in the service of the community.

Again, as capital is the employer of labour, it should be made responsible for the welfare of labour. Labour too, as the employer of capital must be made responsible for the safety of capital. Hence, the two must be mutually responsible for the welfare of the community; and the community, in turn, should be responsible for the welfare of both. Thus, while capital becomes the trustee of labour, labour becomes the trustee of capital, and jointly they both become the trustee of the community. The community too, on its part must take up the role of trustee of both capital and labour in industry in return, and see that they both flourish.

When such understanding guides the relations between capital, labour and community, the cause of much of the strife that we witness today will stand removed. It is arising out of the acceptance of the basic principle of both capital and labour, that they both are mutually servants of each other and are, therefore, co-partners in the industry, that the philosophy of labour's right to participate in the management of industries should come to be recognised and implemented.

Not by Concessions and Patronage

Labour participation in management of industries cannot be brought about by any condescending act of patronage by capital as a concession given to labour, or as a means of exploiting labour out of the consequent sense of belonging to the industry. Labour participation in management of industries should be the concrete manifestation of the acceptance of the principle of co-partnership and co-trusteeship, and their joint responsibility to the community, and that such partnership should be on the basis of equality, to begin with. There is seldom the realisation of labour's role as partner in the industry so far, although we have often come across lip service to the principle.

In a tripartite conference held several years back, the principle of labour participation in management was unanimously accepted; but then such acceptance has had no effect on the industrial relations in the country, or on transforming the role of labour or management and their respective

thinking. That has been so because those who accepted the principle have done so in a superficial manner without bothering to understand the full implications of the principle, much less to strive to implement it in their respective spheres.

Pre-Emergency Joint Management Council—Still-born

The Joint Management Councils set up in a few units, both in private and public sectors, following the acceptance of the principle of labour participation in management in 1959, have been practically still-born. Neither management was psychologically prepared to treat labour as its partner, nor labour itself was equipped to accept the responsibilities inherent in its new role and discharge them satisfactorily. Joint Management Councils thus became one more committee to quarrel with each other, and in several instances, the first meeting of the Council became its last meeting as well. Such false beginnings, largely guided by the publicity value without preparing the ground for it, have been responsible for the failures. But that does not mean that the principle itself is wrong.

It should be realised that labour participation in management holds the key to happy and harmonious industrial relations and quality service to the community. Such participation, however, must be real and effective, based on thorough understanding of the philosophy behind it and a genuine desire to implement the same.

Basic Education—The Need

While on the management's side there has been no change in their traditional attitude towards labour, labour too continues to be divided on account of multiple unions and is unable to speak with one voice. Until there is a single, strong, responsible union in a plant or an industry, simultaneously with an enlightened employer, it will be difficult even to experiment this idea in that plant or unit on a voluntary basis. Therefore, the primary prerequisite is education of both management and labour: management to be mentally prepared to accept labour as an equal partner and function as such, and labour to realise the need for unity and give up its traditional, agitational role and function as a responsible partner in the industry, and as a co-servant for the community. Such education must be ensured by a planned bilateral programme which hardly exists now. Therefore, education of both management and labour

has to be oriented towards this objective, and only after we achieve certain degree of success in transforming the attitudes of both parties, can labour participation in management be meaningful.

Participative Management—Rather Urgent

We cannot, however, wait indefinitely till all management and all sections of labour in the country are adequately educated to give effect to this principle. It will take decades even to make a beginning if we are to wait for such a process to be completed, howsoever desirable that might be. Our Prime Minister, in her 20-Point Programme announced in July 1975, has included "association of labour in management of Industries" as one of the items for implementation. It has, in consequence, achieved a degree of urgency.

Further, there is a welcome move to amend the Chapter on "Directive Principles of State Policy in the Constitution", to include labour's right to participate in management of industries. This has ensured that there is going to be a permanent and qualitative change in the labour-management relations in our country. The working class will be ever grateful to the Prime Minister for this important step forward.

Wherever we have a progressive employer and a single strong responsible trade union, with a fairly long spell of happy industrial relations, there can be no justification for delaying the implementation of the programme of participative management. Such participative management should ensure the right of co-determination at all decision-making levels, commencing from the shop-floor right into the Board Room. A selective application of this principle will help us to gain the necessary experience, so that a scheme could be evolved for general application, in stages, with suitable modifications even where ideal conditions do not exist.

Once the ground is prepared and mental attitudes of both sides are attuned to this idea of participative management, there will be a break-away from the traditional agitational role by the trade unions, and the role of indiscriminate resistance by managements.

True and effective labour participation in management of industries holds the key to maximising productivity through happy, harmonious industrial relations oriented towards quality service to the community. □

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Some Thoughts on Workers' Participation in Management

Jatin Chakravorty*

Workers' participation in management is not a new concept. Mahatma Gandhi, in his own wisdom, mooted out the idea of such a participation by workers to be executed through implementation of his own conception of a "Workers' Republic" where there should be proper understanding coordination and harmony between capital and labour and both of these "recognise each other's value and honour each other's dignity." In such a "Republic", the capitalists look upon the workers as members of the same fraternity and kinship group and being copartners in joint venture, they give them "full participation in management." Mahatmaji sincerely believed in his ideal and also had convicition that such an ideal can be achieved. Proceeding on the basis of his ownphilosophy of "trusteeship' and "class collaboration" Mahatmaji and his ardent followers made an experiment through the Textile Labour Association founded in Ahmedabad. In spite of scepticism of those who did not have any faith in this aspect of Gandhiji's philosophy, the results were most encouraging and unexpected at least in relation to industrial relations. From 1917 to 1956 there was no major confrontation and strike in Ahmedabad, except one in 1923. The Royal Commission on Indian Labour had to admit in its report in 1931, that "in Ahmedabad there is greater understanding if not sympathy between the employers and the employed than is usual elsewhere." But the result of Mahatma's experiment remained only localised and did not have any impact in other parts of the country, nor did it evoke any favourable response for emulating this example because of different socio-political traditions and uneven growth and development of the trade union movement in other areas.

Earlier Experiments

In the post-independence period new developments took place. The trade union movement became politicalised; political parties with various ideologies, ranging from extreme left to right, entered the arena and

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became fully involved in building up and organising the trade unions. Important officials of political parties and other functionaries dominated and controlled the trade unions—some of them, specially the left leaders, looked upon the trade union as "study classes for revolution" and organised the unions on a "class basis" and as labour wings of their respective parties. This new trend and development inevitably led to splits in the trade union movement at the national level and proliferation and multiplicity of unions at lower levels. Consequential inter-union rivalry adversely affected the environment and climate for achieving the desired targets of production and also contributed to stresses and strains in industrial relations. The employers also took advantage of this development which weakened the bargaining power of the unions.

With a view to meeting the situation and being inspired by examples of other industrially developed countries, both socialist and capitalist, the Government of India started an experiment in workers' participation in management in 1958. As a forerunner to this experiment there was in the year 1956 'The Industrial Policy Resolution' of the Government of India which laid down that "In a socialist economy, labour is a partner in the common task of development and should participate in it with enthusiasm..." and declared that "there should be joint consultation and workers and technicians should, wherever possible, be associated progressively in management." This issue was considered in the 15th Indian Labour Conference next year in 1957 wherein it was decided that there need not be any legislation in that regard as the employers' representatives in the conference had voluntarily agreed to introduce the scheme in some "selected industries".

The experiment by the Government mainly took two forms:

(1) The statutory works committees/joint committees, and

(2) Joint management council, accepted voluntarily by central organisations of workers and employers.

Neither of these schemes effectively served the purpose for which they were introduced.

Works committee was provided under the Industries Development Act, but there was vagueness regarding its functions and in 1959 Indian

Labour Conference drew up a list of items which normally will be dealt with by such a committee and also a list of items which would be beyond its scope.

Apathy of the management, vagueness regarding the exact scope of its functions and inadequate implementation of its unanimous conclusions were the main reasons for its ineffectiveness. The National Commission on Labour in 1969 evaluated the working of such committees and observed : "In the evidence before us, state governments have expressed the view that the advisory nature of the recommendations, vagueness regarding their exact scope and functions, inter-union rivalries, union opposition, and reluctance of employers to utilise such media have rendered works committees ineffective."

The scope of the joint management council was broadened, no doubt, and it was entitled (i) to be consulted (ii) to have the right to receive information on some specified matters and (iii) to be entrusted with administrative responsibilites in a set of functions. But its main features were its (i) voluntary character and (ii) creation of new rights as between employers and workers to be outside its jurisdiction — which made it almost infructuous. The National Commission on Labour was very categorical in its comment on the working or functioning of the JMCs: "attempts to promote wider acceptances of the idea of JMCs appeared to have met with little success over the years" and that "there does not appear to be much support for the institution in its present from" and that "the fact remains that the JMCs have not been a resounding success at any place either from the point of view of employers or labour."

Emergence of NPC

The non-achievement of the objectives of fostering better industrial relations and increase in production and productivity became a cause of growing concern which prompted the government to set up the National Productivity Council in 1959. The Council is tripartite in composition with representatives of management, labour, specialists and government on it. The main aim and object of the government in taking this step was to disseminate the message of productivity to all levels and create an awareness amongst all sections of workers and

management about the urgency, importance and the necessity of higher productivity. The slogans of 'productivity is key to success" and "productivity is key to prosperity" have been projected and through the activities of the Council with branches in all the important industrial centres, sustained efforts are being made for greater involvement and association of workers and employers in the drive for higher productivity. There is a general consensus that the Council has done a good job during the period after its inception and at least has created a climate for productivity.

In this background, the Prime Minister, in announcing her 20-point programme, has again highlighted the issue of workers' participation in industry by including this item in the programme. There has been some confusion, no doubt, about the scheme as a result of substitution of "workers' participation in management" by "workers' participation in industry" and the scheme containing the broad guidelines about the scope and functions of the bodies to be set up as circulatad by the Labour Ministry are being considered by both labour and management with a sense of caution.

Labour and Productivity

Before examining the scheme in the broader perspective and before embarking upon its implementation, it will not be out of place to deal with the various aspects of productivity specially from the workers' point of view and the conditions under which labour productivity may be optimised.

In the work of the recent proclamation of emergency, the productivity movement has assumed greater importance. The urgency and necessity of increased production and higher productivity have been pointedly highlighted and focussed in the pronouncement of the Prime Minister. She has exhorted both the management and labour to set up targets and strive hard to ensure improved efficiency and higher productivity.

In this context, the responsibility of the trade union movement for its due contribution to higher productivity is to be examined and the programme for appropriate steps in this regard is to be considered.

The role of trade unions for improving productivity can be hardly discussed and considered in isolation. It is largely dependent upon and intimately related to the role of the management and the government as well.

There are two aspects of productivity—one, the technical aspect, covering techniques of better organisation and better management and the other, far more important, pertaining to the psychological and human aspect, and involving better motivation, better attitudes and better industrial relations. Regarding the first aspect, the management is almost exclusively the dominant factor and regarding the second aspect both management and trade unions have a joint responsibility, whereas in both these aspects, the government is vitally involved and has a major role to play.

It was a basic point unanimously accepted at a tripartite National Seminar in March 1972 that "the task of promoting productivity in industry is essentially a function of the management." They must, therefore, realise that the worker is a human being first and a producer next and this sense of realisation enjoins upon the management certain social responsibilities. The efficiency of a worker is necessarily affected by the environment in which he works—unhealthy, discontented, always-grousing workers performing their jobs under conditions of physical and mental strain must inevitably be inefficient producers.

Also a survey by the Shri Ram Centre reveals that on the question of co-operation with the management in improving productivity, the Trade Union leaders who were interviewed unanimously asserted that this is primarily a concern of the management. "It was the management's function to provide machines, raw materials, work process and designs. The worker could only perform to the requirements of the job."

The social responsibility of the management is thus to create that environment and atmosphere in which the worker feels enthused to contribute his best and the management also can draw the best out of him. It enjoins upon the management a great obligation to see that the aspirations of a worker are realised which are broadly : (1) recognition of status—individual and collective ; (2) security of service ; (3) decent higher wages ; (4) scope for promotion ; (5) quick

redressal of grievances ; (6) improved living conditions including good housing and social welfare measures ; and (7) congenial working conditions.

Incentives : Important Motivating Factor

For creating the required environment, an incentive is also definitely an important factor. Incentive may be (a) financial and (d) non-financial.

There is a general belief amongst employers that a wage incentive or the size of the pay-packet helps to get more work done. This may be true up to a certain limit specially where the wages are very low.

One important point must not be overlooked during application of incentives—that it should not merely aim at increasing the rate of production but rather at maintaining the rate of work at a level as near as possible to the optimum level.

Incentives are measures which motivate a worker and stimulates human exertion. Yet, unlike machines, human beings do not have buttons which could be pressed to accelerate their activity. Motivation may flow from a complex of stimulants—economic, social and psychological. Therefore, it may be difficult to identify one single stimulant which may be most effective, even though looking to the present low level of wages, one may be prompted to suggest that the economic stimulants will be most effective.

On the question of non-financial incentives, the National Commission on Labour emphatically stated that the central aim of all incentive schemes is to raise productivity at the enterprise level. They opined that in this matter the responsibility of employers is primary, for it is they who have to seek the necessary response from workers. Since productivity improvements ultimately bring about a benefit to the community, government as the custodian of the interests of the community will have to play a role in promoting productivity and, in this process, building up incentives which would help such promotion. The Study Group on Productivity and Incentives which examined this point in details suggested that the government must pursue policies

which will contribute to the growth of a social, political and economic climate in the country conducive to the rapid and continuing growth of production and equitable distribution of the same.

Need to Create Congenial Environment

The government has also an equally vital responsibility to make its due contribution to the creation of the required environment.

On this issue, the leaders of trade unions of various cross-sections are unanimous and they have very appropriately given expression to their feelings in their statement when they met in a national seminar on 19-20th August, 1973, sponsored by the National Productivity Council : "The Trade Union Movement recognises that raising production in all sectors of the national economy—and particularly in the public sector enterprises and essential services—is essential for the development of national economy, but it wishes to emphasise that the workers are only one factor of production and that its own contribution to raising production and productivity can only be optimised if other major factors of production, especially management and government take appropriate matching actions in their respective spheres. In so far as government and employers are at the policy-making levels and are responsible for guiding the present economy, their responsibility for raising production and productivity and for creating the environment in which the labour contribution can be maximised is paramount."

The managements of both public and private sector enterprises have to create an appropriate climate for fostering proper industrial relations, leading to effective bilateral bargaining. Considerable change has to be brought about in the managerial culture and environment for promoting effective workers' participation at various levels of decision-making process and providing adequate motivation to them for maximising their effectiveness in the drive for higher production and productivity.

Employers and the government should enthuse confidence in the trade unions that it will not lead to retrenchment, intensification of workloads, reduction in emoluments and will maintain employment potential. Production norms should be mutually agreed upon between the representatives of employers and trade unions before these are implemented at the enterprise level.

Rise in production and productivity either in quantity or quality should lead to increase in real wages rather than erosion of these over a period of time. The gains accruing from higher production and productivity should be equitably shared with the workers and the commuity. It should lead to the improvement of community. It should lead to the improvement of conditions of the working class on a national level.

Optimum utilisation of capacity is another responsibility, which, of course, is not exclusively of the management alone. It is a joint responsibility to be shared also by the government.

Rise in prices is one single factor, which, more than any other, distorts the productive mechanism and creates social unrest which we are experiencing today.

The 1973 Trade Unions Seminar observed. "The trade union movement does not believe that this price rise is due to the discrepencies between rise in monetary wages and rise in productivity. On the contrary, official statistics show that while productivity has risen, real wages have fallen or remained stationary on the one hand and prices have risen on the other hand. We have observed that even when there is full production, prices continue to rise, reducing real wages. Without underestimating the importance of maintaining production and productivity at a high level of operational efficiency, we wish to emphasise that solution to the present price rise has to be sought by dealing with the factors which have led to creating parallel economy and by evolving an effective distributive mechanism under public control which will ensure equitable distribution of all essential items at predetermined fair prices."

The Seminar, therefore, demanded that for maximising the effectiveness of the effort of the trade unions and workers in their drive for higher productivity, ' Price rise has to be immediately controlled by the Government by ensuring appropriate public distribution system which leads to equitable distribution of available goods and services, and exercising effective control on money circulation, and such other factors which have direct bearing on price rise."

National Labour Commission, in its report, has commented that "increases in money wages of industrial workers since Independence have not been associated with a rise in real wages, nor have real wage increases been

commensurate with improvements in productivity. Simultaneously, wage costs as a proportion of total costs of manufacture have registered a decline and the same is true about workers in value added by manufactures."

Some legislative measures recently taken by the government may have adverse effect on the earnings of labour and thereby may disturb the climate for production and productivity. The recent Bonus Ordinance is one of the glaring examples on the point.

Against this backdrop, the new scheme of workers' participation "in industry" is to be examined and assessment of its prospect of successful implementation is to be made. From the Prime Minister's announcement, it is absolutely clear that the scheme is productivity-oriented. The sincerity and seriousness of the Prime Minister and her growing concern for productivity can hardly be doubted but it is imperative that the management and the government should and must take timely messures for creating the much-needed environment by fulfilling the conditions mentioned above. The success of the scheme will largely depend upon the timing and the degree of success of such measures. Just an appeal to the higher sentiments and strees on the duty of the parties to the industry and the nation and a call to them to contribute their mite in the great adventure of nation-building by increasing production and productivity will be infructuous unless accompanied by a share in management and gains of productivity.

Some Prerequisites for Successful Participation

The trade unions are definitely of the opinion that for effective and successful participation of workers in management of industry, some prerequisites are essential :

(1) Participation must be at all levels, from the shopfloor to the Board of Directors. Such participation must extend to all decision-making processes.

(2) Information-Sharing : The first step in this regard would be the management's preparedness for information-sharing with the workers and their union. They must place all the cards on the table, face

upwards, so that finding a solution to a given problem in a given situation does not become the sole responsibility of the management. The search for solution of all the problems should be joint, and labour must be enabled to have the satisfaction of participation in finding a solution to the problem. This can be done only if all the facts are made available equally to both parties and labour is associated in decision-making at all levels.

(3) Representatives of workers to be elected by the workers.

(4) Equal number of representatives for the workers and the management.

(5) It must be voluntary and it must evolve, but not imposed from above. If it is imposed, the attitude of the workers are bound to be indifferent and even antagonistic. In-built nature of the machinery is important.

(6) Existence of a strong and recognised union—whatever may be the method of recognition of a union.

(7) Industrial relations of a high order and for fairly long period.

From a perusal and scrutiny of the scope and functions of the proposed two-tier committees under the scheme, it is observed that it falls much short of the expectations of the trade unions. To quote the resolution of the INTUC General Council recently held in November : "The council is convinced that industrial democracy is vital to bring about economic democracy, and labour participation in management is vital to achieve industrial democracy. That is the surest way of democratising employer-employee relations, be it in the private sector, or the co-operative sector. The guidelines scheme issued by the Government of India in this regard is incomplete.

Even in the functions of the JMCs, there was "a right to receive information, to discuss and to give suggestions on economic situation, organisation and general running of the undertaking and balance sheet and profit and loss account." Even these rights have been negated under the new scheme.

The most essential factor is the attitude of the parties—Management, Government and Labour. Labour has been mentioned last because its attitude will largely depend upon the attitude of the other two.

During the setting up of the JMCs, Shri Naval Tata as the Chairman of the Employers' Federation wrote a letter to the then Labour Minister, Shri G. L. Nanda on January 5, 1962 urging upon him to change the nomenclature suitably, as "false hopes are aroused by the phrase "Workers' Participation in Management" and that "after all, JMCs are not intended to usurp the essential management functions." Workers may pertinently ask whether that attitude has changed by now.

Another important representative of the management, Shri Bharat Ram, has commented that "to take a rounded view of management and simplistic idea of associating employees with it, is both unrealistic and confusing" as "management encompasses in its field a gamut of activities ranging from the arrangement of finances to the ultimate sale of products and we should, therefore, start workers' participation by making them to participate in equity shares." There may be some cogency in such arguments, because the workers representatives must have requisite education, training, experience, knowledge and expertise in important "functions" of management.

But the workers maintain that labour participation is not to be conceded as a matter of charity or patronage, it must be a recognition of the right of labour, his inherent right of co-operation. Give them the responsibility and only then they may be properly traind up. One may quote the comment of the great political thinker, Russeau, in relation to women's suffrage, "take away the fetters, whether they walk or not."

Another feature which disturbs the climate is the persistent retrenchment, lay-off, lock-out and closure even after emergency. The West Bengal Labour Minister had exclaimed as a result of such incidents in the state that he had reason to believe "that the private sector employers were taking advantage of the emergency and were denying the workers their legitimate dues." One may ask why the appropriate government does not put deterrent restriction on closure, lay-off, retrenchment and lock-out. The attitude of the government is expected to be firm in this regard: otherwise an impression may get round that the proposed scheme is "management-oriented" in as much as increase in productivity will benefit the employers by maintaining the *status quo* and perpetuating the prevailing level of exploitation of the working class.

In conclusion, I want to draw attention of all concerned parties to the observation made by Shri V.V. Giri, former President of India and one of the pioneers of the trade union movement, during his NPC Foundation-Day address in February. 1975 :

"The difficulty in this country is a negative, complaining attitude about all other factors of production except one's own. Employers complain in this country of a historical decline of labour productivity and they cite instances such as growing indiscipline, soaring labour costs, unchecked absenteeism, constant industrial litigation, and the like, which prevent any improvement that would increase productivity. Workers, on the other hand, have their own list of complaints : inadequate wages, lack of incentives, excessive profit, unsatisfactory working conditions, bad and even dishonest management, poor maintenance of machinery, bad quality of raw materials, unfair treatment, and the like. The negations lead us nowhere. What we require is a positive attitude on the part of every individual and section of society which alone can cut the Gordian knot that strangles the Indian economy today."

Every right-thinking person will hope that though very limited in scope and function, the new scheme may be given a fair trial as a preliminary phase of real workers' participation in management and that for its success the crisis of confidence amongst the concerned partners may be resolved soon through joint and co-ordinated efforts.

Amongst the employers, let there be a new urge for new approach, new attitude and a new culture, besides winning the full confidence of the workers and the trade unions. Let them recognise that along with maintenance and development of the plant, equal emphasis must be laid on the development of the men behind the machines. Let them get prosleytised to a new faith—a new determination to accept the workers in common fraternity as co-partners to instil in them a sense of belonging. ❑

Workers' Participation in Industry : A New Start

Naval H. Tata*

In today's industrial society, the employee is divorced from active involvement in decision-making and unable to influence the authority which exercises power in the organisation. This "alienation" is accentuated in large-scale organisations and in mass-production technologies. Because of this situation, a demand is made for greater association of workers in industry and for a greater say for them in matters which directly affect them. Such is the basic motivation for various schemes and types of workers' participation in industry. But there are a number of reasons why employees may wish to participate, e.g., :

(1) The affluent workers of the West wish to have freedom as against restraint implied in taking orders.

(2) The educated employee considers it his right to be involved.

(3) There is a trend to question all authority and this includes industrial authority.

(4) Participation is a means to improve quality of working life.

(5) There is a philosophical basis that man must be creative and has need to belong which is satisfied through participation.

(6) Employees want to participate because other employees in other countries/industries are successful in doing so — a form of imitation.

Objective of Participation

Once it is agreed that participation is needed and is desirable, the precise form it should take depends on the objective that is sought to be achieved. One view is that objective of participation is to bring about harmony, common purpose and team-work

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to enable greater production and productivity. Most managements and entrepreneurs hold this view. They consider industrial conflict as baseless and capable of solution by the participative management. Another view is that conflict between labour and management is inherent in industry, and employees need to assume some control over their working conditions. Such an approach leads to the institutionalising of conflict and resolving it through the participation medium, such as works councils, supervisory boards, etc. There is, of course, nothing exclusive about either view and, in pratice, it is difficult to keep clear demarcation of motives or forms of participation.

Joint Management Councils

In India, the concept of workers' participation originated in the second Five-Year Plan and was accepted in good faith by the employers. The scheme provided for appointment of joint management councils in industries with a certain number of workers. It was to be introduced in the first instance in 50 industries as an experiment and pilot project. The councils were given the right of consultation in regard to specific matters, right to receive information and the responsibility of administration of certian welfare measures. While the scheme was laudable, it looks at this distance of time to have been premature as the conditions necessary for its introduction did not obtain. The main factors for its failure were, *inter alia*, the inter-union rivalry and the difficulty of selecting workers' respresentatives on the joint councils.

Our experience in this regard is not unique. At the Asian Regional Conference at Jakarta in 1974, at which I was present, it was indicated by some participants from other Asian countries that for various reasons formal joint consultative machinery had not proved very effective in their experience. In many cases, they had to be abandoned owing to the very meagre interest shown by workers in general and by trade unions. This situation developed whenever such consultative council was established as an independent entity through election by a secret ballot, even though subjects under the jurisdiction of the council did not in any way involve a trespass on the traditional rights of the trade union for purposes of collective bargaining. This unfortunately goes to prove that at the back of the mind of the trade

unions there is a lurking fear that any council so established, if not dominated by the majority union, at the unit level will constitute a rival to the representative union and ultimately dilute its influence over the workers. The situation becomes much more complex where there is inter-union rivalry within the unit.

New Scheme

in October 1975, Government announced a scheme limited in scope for workers' participation in industry. The objective behind it is to introduce involvement of workers in production through shop councils and joint enterprise councils. The present scheme is a scaled down re-incarnation of the old concept of workers' participation. In the old concept of this philosophy, there was provision for a worker-director on the Board. it was, to some extent, like putting the cart before the horse, without doing the preliminary ground work. The scheme as it now emerges, has its merit as an evolutionary process leading to the ultimate concept of the old scheme. In fact, it is so practical in its approach that circumstances beyond the control of the employers alone could justify his passive resistance to introduce such a scheme It is true there are a few factors beyond the control of the employer, such as multiplicity of unions, absence of representative or recognised union, insistence from non-representative unions to dominate the election or attempts to misinterpret the scheme as a further forum for collective bargaining. On the other hand, however, there are hundreds of units which have no such difficulties. It would be sheer obstinacy alone on the part of an employer to cling tenaciously to the old school of industrial relations if he is reluctant to implement such a scheme. In fact, employers have little to lose and much to gain by adopting a positive attitude. On the other hand, it is up to the trade unions to respond by not looking upon it as a newly-owned right but as an acceptance of new responsibility, fulfilment of which could lead them to their ultimate goal in participative management.

Emphasis on Productivity

According to latest reports, the scheme has already been introduced in nearly 1,500 industrial establishments in the private, public and state sectors. This is a good augury for the success of the new scheme. The

importance of the scheme lies in its emphasis on co-operation for production and productivity and the involvement of workers themselves in the shop and joint councils. It is understood that while there have been difficulties in some units over the question of representation of unions which should have a voice in the nomination of members on the joint councils, by and large, the problem has been solved through mutual consent.

The Government has not laid down the precise procedure for nomination, but this has enabled flexible arrangements to be made in different undertakings based on their individual circumstances.

The schme is one of the important planks in the 20-Point Programme of the Prime Minister and its implementation in the right spirit by all parties concerned will lead to the promotion of industrial harmony as much as improvement in production and productivity. In fact, for the first time in the new climate created after the declaration of emergency, the trade unions are thinking of productivity as a desirable concept and objective and if this interest is maintained, there will be vast improvement in our industrial relations climate with all the beneficial effects it is capable of bringing in its train. □

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Workers' Participation : How to Make it Work?

V. B. Karnik*

Workers' participation in management was a new idea that was floated in the country in the fifties. The second Five-Year Plan recommended it in the following terms : "For the purposeful implementation of the Plan, increased association of labour with management is necessary. Such a measure would help in (a) promoting increased productivity for the general benefit of the enterprise, the employees and the community, (b) giving employees a better understanding of their role in the work and (c) satisfying the workers' urge for self-expression, thus leading to industrial peace, better relations and increased co-operation. This could be achieved by providing for councils of management consisting of representatives of management, technicians, and workers. It should be the responsibility of the management to supply such a council of management fair and correct statement of all relevant information which would enable the council to function effectively. A council of management should be entitled to discuss various matters pertaining to the establishment and to recommend steps for its better working. Matters which fall within the purview of collective bargaining should, however, be excluded from the scope of discussion in the council. To begin with, the proposal should be carried out in large establishments in organized industries. The pace of advance should be regulated and extension of the scheme should be in the light of the experience gained."[1]

Presiding over a meeting of Standing Labour Committee held in Bombay in October 1958, the then Labour Minister, Mr. Gulzarilal Nanda, said the following about the idea of participation : " I believe that it is only on the basis of genuine participation between the workers and the management that peace in industry of a true and enduring kind can be established. What we are seeking to achieve through this relationship between the workers and the management is not simply absence of strife but positive collaboration for raising industry and the economy of the country to higher and higher levels. I have taken it for granted that it will become a universal feature of our industrial organization in

*Director, Labour Education Service, Bombay.

1. Second Five-Year Plan, p. 577.

this country and I am not anticipating very long period to elapse before we arrive at this stage."

Joint Management Councils : An Attempt Towards Participation

In the mean while, Government had sent a tripartite study team to Europe to study the working of participation schemes in countries that had established them. Indian Labour Conference meeting in July 1957 approved the report of the study team and decided to operate the scheme through Joint Management Councils established on a voluntary basis. A seminar held in February 1958 prepared a model argeement for the setting up of the councils. A list had been already drawn up of public and private sector undertakings which had agreed to try the experiment.

The idea had a mixed reception amongst employers as well as in the trade union movement. Employers were not enthusiastic about it, but they decided to give it a trial as Government were keen about it.

The scheme introduced under government auspices did not, however, prove successful. In 1968 it was operating in only 131 out of nearly 18000 establishments in the country. A number of evaluation studies of the working of the scheme was prepared by Government. After a close study of those reports the conclusion that a scholar arrived at was as follows :

"The impression that emerges at the end of a close study of those genuinely sympathetic and reasonably satisfactorily prepared evaluation reports is that apart from some minor salutory results here and there, the Joint Management Councils had not produced any real impact on the working of the undertakings where they were introduced. On the contrary, even during the initial period when both the management and the workers were eager, in these specially chosen concerns, to ensure the success of the scheme, the inherent conflicts underlying the scheme had begun manifesting themselves."[3]

After analysing some more studies made in 1966, he reaffirmed his conclusion in the following words : "In spite of all these efforts on the

2. *Indian Trade Unions—A Survey*, V. B. Karnik, Manaktalas, Bombay p. 211.

3. *Workers' Participation in Management*, M. V. Pylee, N. V. Publications, New Delhi, 16, p. 50.

part of the Central Government, the scheme did not register any further progress. On the contrary, it began to show a decline which once started became almost contageous in character. This is evident from a study of the Joint Director, Labour, Employment and Rural Manpower, Planning Commission, Government of India. The study acknowledges the facts that the scheme has made only very limited progress in that Councils (Joint Management) were set up only in 131 industrial undertakings comprising 46 in the public sector and 85 in the private sector, so far, in a country which has nearly 18,000 industrial establishments.

"This is, to say the least, a very mild way of saying that the scheme has been an utter failure. Today, if anyone asks a question to any senior manager either of the public or the private sector about the working of the scheme in his undertaking, he will just laugh at the question or will give a reply which will show how poor was the performance of the scheme."

The verdict of National Commission on Labour was not any different. It stated : "There does not appear to be much support for the institution of Joint Management Councils in their present form. Even where the Councils exist, they are reported to be ineffective and their functioning unsatisfactory in many cases."

Although it will be interesting to discuss in detail the causes of the failure of the scheme, it is not necessary at the moment as the scheme is now superseded by another more dynamic scheme. Broadly speaking, the causes of the failure were disinterest, amounting in some cases to opposition of employers and apathy of workers. Unless the two causes are removed, the new scheme may not also succeed.

Industrial law had earlier provided a forum for labour-management cooperation. It was the Works Committee to be set up under the Industrial Disputes Act. Works committees were set up in several establishments. Experience with regard to them is uniformly discouraging. Managements do not like them; and workers are indifferent to them. Workers are indifferent to them because functions assigned to them are insignificant. Sometimes they are also used to undermine the influence of unions. The lesson is obvious. Unless there is a genuine desire to cooperate, no institutional device will prove useful. The desire has to be on both sides. There is a danger that the new experiment may

meet with the same fate if effective steps are not taken to create the necessary favourable atmosphere.

New Scheme Makes Significant Progress

The new scheme is a part of the Twenty-Point Programme announced by the Prime Minister in July 1975. The distinguishing feature of the new scheme is workers' association with management at shop-floor level. That was one of the lacunae of the earlier scheme. It is not enough to give workers representation on boards of directors. Usually it is only a nominal representation and does not help a worker in the problems that he has to face in shops and departments. The same is the case with a joint council at the enterprise level. Participation to be effective must begin at the bottom and go up to the top. The new scheme, it is expected, will provide for this type of participation at all levels.

Workers' association with industry is a part of the economic programme to be pursued energetically during the period of the Emergency. As such, it has acquired an importance and urgency that it never had before. In a few weeks after the declaration of the programme, Government of India issued a directive that all industrial establishments employing 500 or more workers should set up departmental and plant level councils in order to associate workers with management. Some States went further and made the scheme applicable to establishments employing 200 or 300 workers. The directive was only a recommendation. It was only in one State, namely, Gujarat that it was given a statutory force. Even then, owing to the conditions of Emergency, the directive received countrywide acceptance in the public as well as the private sector.

According to information collected and circulated by *Samachar*, two and a half million workers were covered by the scheme up to the end of September 1975. They belong to industries like steel, aluminium, copper, fertiliser, cement, mica, textiles, paper, sugar, footwear, jute, glass and engineering. This is, no doubt, a very extensive coverage, both geographically and industrially. The scheme, it is stated, has avoided conflicts and brought about better understanding between employers and employees. The number of man-days lost through strikes and lockouts has gone down considerably; but it is difficult to say how far it is due to the participation scheme and how far to restrictions imposed by the Emergency. The same

thing can be said about increased production. It will require a closer look into the working of the scheme to be able to give it credit for increases in production.

Though introduced as an Emergency measure, the scheme is not going to end with the Emergency. This is clear from the decision to include workers' participation in management of industries in the Directive Principles of State Policy in the Constitution. Workers' participation in management of industries will thus become one of the accepted goals of State Policy. The goal is accepted, but the method of its implementation is left flexible. It may be through 'suitable legislation or in any other way.' Advocates of participation will not object to this flexibility. They may, as a matter of fact, welcome it.

The main aim of the scheme, as announced, is to help increase production and productivity. Both are essential in a developing country like ours. They are our main weapons in the battle for *Garibi Hatao*. But it will not be desirable to restrict workers' participation in management only to those two aims. Production and productivity can be increased through a variety of means—like, technological progress, more efficient management, better wages and incentives and better industrial relations. Many developed countries have attained that end without thinking of workers' participation in management. However, some of them have now started thinking about it, but for other reasons.

Experiences of Other Countries

Workers' participation in management is secured in various countries through a variety of means. The most popular and universally accepted means is the method of collective bargaining. Collective bargaining gives workers a say. How effective it is, depends upon a variety of circumstances, in the settlement of terms and conditions of service. In some countries like U.S.A. and Japan, trade unions are so powerful and economic conditions so congenial that they do not think it necessary to go beyond collective bargaining. They could afford to say : "The job of management is to manage; the job of the unions is to get the best wages and employment conditions by every possible means. The respective responsibilities should remain unblurred." They are thus opposed to accept any management responsibility. But in recent times, circumstances like inflation and

recession have compelled them to make some significant changes in that pristine attitude.

In Great Britain, unions reinforced collective bargaining by joint consultation which included many items which did not fall within the ambit of collective bargaining. They also experimented with a variety of joint bodies like joint production committees and others. After the Second World War they demanded and secured representation on Boards set up for managing nationalised industries. Initially, those who were appointed members of Boards had to sever their connection with trade unions of employees of the respective Boards, on the ground that there should be no conflict of interests. In recent years, opinion is turning against that insistence and the feeling is growing that it will be more useful if trade union leaders serve on the Boards without severing their ties with their unions. Apart from serving on Boards of nationalised industries, trade union leaders have, in the last few years, accepted many positions of trust and responsibility which have compelled them to participate actively in the management of the national economy and of many industries.

These responsibilities that trade unions and their leaders have accepted can be regarded as an advance in the direction of industrial democracy. Industrial democracy is a vague term loaded with many meanings from joint consultation to workers' control. A practical and useful clarification of the term is to be found in a document adopted by British Labour Party in 1968. It was drawn up by a working party. Some of the references to the document on the issue of participation will be of interest. A scholar studying the problem of industrial democracy writes : "The working party saw an extension of industrial democracy as stemming from developments in existing collective bargaining practices. It said, "We should not identify collective bargaining procedures solely with wage determination and disputes procedures. The firm linkage that we envisage between workers' participation and trade union organisation will still mean that a great deal of practical diversity of forms of participation will be experienced .... workers will understand a process of workers' participation that develops from collective bargaining rather than one entirely separate from it." It went on, "The aim of this approach would be to extend democracy in industry not by evolving new and complex (and perhaps alien) structures, but by gradually increasing involvement in a development of existing machinery which is already known and used because it deals with fundamental questions like pay and conditions. It

would encourage a movement towards participation in democratic procedures; a natural evolution rather than an attempt to conjure democracy out of the air..... ....." The working party wisely concluded that, "Once the normality of co-operation on a wider range of subjects and at different levels (work place, firm, industry, the regional and national economy) is accepted, the problem in practice is that of determining the forms of cooperation that are most suitable and the extent of cooperation which is consistent with the interests of the parties involved... ... The working party had clearly placed the major responsibility for any advance in industrial democracy upon the trade unions. And they were right to do so."[4]

The author, Mr. Horner emphasised towards the end of his study the necessity of preserving the independence of unions. He stated : "A trade union has one overriding responsibility—the advancement of the interests of its members. If it fails in that task, then in the end it will cease to be a union ...Of course, no union can conduct its business without regard to the society of which it is a part or without regard to the economic interests of the industry in which its members earn their living. Thus there is no inconsistency in unions or work-people participating in managerial decisions, joining in schemes of job enrichment or even nominating members on to management boards, provided the union's power remains independent. No joint consultation, no job enrichment scheme, no legislation providing for employee directors, can extend industrial democracy a single inch, unless, with such davelopments, the independent power of the union is preserved and strengthened.[5] The point stressed by Mr. Horner and adopted as a rule by British unions must be kept in mind by all who stand for workers' participation in management.

In West Germany, they adopted for the purpose the system of Works Councils and of Codetermination. Works Councils are established in all industrial establishments according to a law of 1952 which is replaced by Works Constitution Act of 1972. The new law expands the powers of the Councils and removes the conflicts that had developed between them and unions. The functions of the Councils include handling of disputes, protection of employees against management's anti-

4. *Studies in Industrial Democracy*, John Horner, Victor Gollanez, London, pp. 22 to 24.
5. *Ibid*, p. 219.

social measures and supervision of the application of laws and implementation of collective agreements. The Codetermination Act of 1951 applies only to companies in coal, iron and steel industries. According to the Act, employees get 50 per cent representation on Boards of Supervision. (In Germany, there is a two-tier system for the management of companies. Share-holders elect the Board of Supervision which appoints the Board of Management.) There is, in addition, a Labour Director, with powers equal to those of other directors, who can be appointed and removed from office only with the consent of employees' representatives on the Board of Supervision. In non-codetermination industries employees get only one-third representation on Boards of Supervision and no-representation on boards of management. The German trade union movement is demanding the extension of the Codetermination system to all industries. The Works Councils and Codetermination have so far worked without any major hitch, though there are, from time to time, minor complaints from both sides.

International Labour Organisation held in 1974 a symposium to discuss the question of workers' participation in management. For the symposium, information was collected from all over the world about institutional and other arrangements made in various countries for giving effect to the idea. The information collected was put in a background paper. ILO survey stated, *inter alia*, "For varying lengths of time, in a large number of countries, and by virtue, in most cases, of a legal obligation, workers' representatives have been included in management organs in the public sector as a whole or in certain nationalised undertakings, or again in railways, national airways, or various public services such as posts and tele-communications, gas, water and electricity services, etc. This is the case, for example, in Argentina, Australia, Austria, Belgium, Egypt (where equal representation was introduced in 1963), France, Ghana, India, Ireland, Israel, Italy, Mali, Mexico, Nigeria, Norway, Peru, Sri Lanka, Switzerland, Syria, Tanzania, the United Kingdom and Venezuela.

"These workers' representatives may be directly nominated by the trade unions or by the Government on the proposal of the trade unions, or elected by the personnel. Their number and influence vary a great deal from one country to another and from one undertaking to another, by reason of the functions entrusted to them by law or in practice, and because of their standard of education and training for this role."

Regarding Western Europe it stated, after giving information about West Germany; "In several other Western European countries, legislation has been drafted or adopted during the past few years with a view to introducing workers' representation in management organs of private undertakings or to reinforcing existing representation, but in most cases workers have only been granted a minority representation as compared to those of shareholders."

Varying methods adopted for setting up institutions or developing practices were brought out by the survey as follows :

"In many countries, these bodies have been set up by legislation, e.g., Austria, Belgium, Burma, Burundi, Finland, France, Federal Republic of Germany, Indonesia, Iraq, Luxembourg, the Netherlands, Pakistan, Spain, Sri Lanka, Tanzania, Tunisia, Zaire and Zambia. In some cases (for, example, in Indonesia) the setting up of these organs is only compulsory in public undertakings. In other countries, such as Denmark, Norway, and Sweden, they have been established by agreements concluded between the central w rkers' and employers' organisations. In certain countries, again, they h ve been instituted not by national agreements but through collective agreements concluded for certain industries or directly between the management of an undertaking and the workers represented by their trade unions, or at the initiative of the employer, on a purely voluntary basis. This type of system is found, for example, in Australia Canada, Ireland, Japan, New Zealand, Portugal, Switzerland and the United Kingdom, as well as in several developing countries, particularly in Cyprus, India, Indonesia, Malaysia, Singapore, and in a number of English-speaking African countries."

Another experiment which deserves close attention is the Yugoslav experiment of self-management. It is part of a total social transformation that is taking place in the country after liberation and more particularly after its break with Russia. Yugoslavia believes in decentralisation and self-management. The twin goals that it is pursuing are full satisfaction of economic needs and full emancipation of all as producers and citizens. The basic law on enterprises stipulates : "By freely combining their work on the basis of social assets and self-management, the working people in an enterprise organise and constantly expand production, trade and other economic activities so as to satisfy their individual and collective interests and the general interests of society." The ILO back-

ground paper states the following about that system:

"From a conceptual viewpoint, workers' management of undertakings or self-management represents the most far-reaching degree of association of workers in decisions concerning them. Probably the best known example of this type of workers' participation is the Yugoslav system of self-management which has been the subject of a large number of studies and publications and has some twenty years' experience. Under the Yugoslav system, the work-force of the undertaking exercises the principal functions of management through the self-management organs, the organisation and powers of which have been established since the sixties by the statute or internal regulations of the undertaking namely, the workers' assembly and the workers' council. The latter is elected by secret ballot by the personnel from among its members, usually for a term of two years, at the end of which its members are not immediately eligible for re-election of membership. The workers' council enjoys wide powers in the field of management, in general; for example, it adopts the internal regulations (including those concerning distribution of income), development plans and other programmes of the undertaking, supervises their implementation, decides on investments and approves the balance sheet. Every four years, it elects the director of the undertaking, whom it is also empowered to dismiss, and it generally sets up a management board and a supervisory committee, as well as a whole series of specialised committees to which are delegated advisory or decision-making powers in specific fields (for example, recruitment and dismissal of certain categories of employees, grievances, planning, financial and, commercial affairs etc.) Important matters such as mergers or the conversion of the undertaking may be, in general, submitted to a referendum of the personnel, but in practice, decisions on these matters are usually taken by the workers' assembly. This system of self-management introduced in 1950 after a period of highly-centralised management and planning, was extended after 1953 to so-called non-economic activities (education administration, health and social security services etc.)."

Participation Obviates Feeling of Alienation

This cursory survey of various countries will show that the demand for participation is a global phenomenon, that it arises in every industrial

society after some growth of industries has taken place and after workers build up some organisation. Highly-developed industrial societies present the curious spectacle of alienation. Workers lose interest in their jobs. They feel that they are mere cogs in the giant wheel of industry and that they have no significant role to play at the work place or in society. Higher emoluments or fringe benefits do not change the situation. Their dissatisfaction and frustration grow and that affects their production and productivity. They yearn for some control over decisions affecting their working life. Trade unions and collective bargaining give them better wages and better conditions of work, but at the work place they remain hands to be ordered about. They are not recognised as men who may be able to contribute something positive to the better running of industry. A lot has been written about alienation; it is not necessary to recapitulate it. But the fact remains that society thereby condemns a large mass of men to a life of no consequence. Workers in less-developed industrial societies are gradually experiencing the same feeling of alienation. It is hoped that participation in management may remove such a feeling by giving them a share in taking decisions that affect their lives.

Late Prof. G. D. H. Cole invited attention to the distressing fact that "under existing conditions most of us have to spend most of our time carrying out orders which we have had no part in framing". He stated : "This situation has always seemed to me to be basically undemocratic and wrong. I feel sure that most people who have to spend most of their time in obeying orders they had no part in framing, will necessarily imbibe a habit of obedience which will enter into their attitudes not only as employed workers but also as citizens. Either that or they will acquire an attitude of resentment that will both make them unhappy in their work and render them discontented and ill-adjusted in their personal and social relations. Both these effects are bad and both are inconsistent with the requirements of constructive democracy and responsible citizenship."[6] At another place he stated: "It cannot be denied that dull jobs are made less dull and irksome jobs less irksome when those who do them feel that they are important and that the dullness and irksomeness are serving useful ends in which their personal contributions count. A man or woman likes to feel that he or she is *somebody*, whose contribution counts."[7] On

6. *The Case for Industrial Partnership*, G. D. H. Cole, Macmillan & Co. London, (1957) p. 11
7. *ibid*, p. 19.

the basis of these and similar other grounds, Cole built up a powerful case for regarding workers as partners. Many of his arguments are now commonplace in advanced managerial sciences. His specific recommendation is, however, not accepted. The incompatibility that he pointed out between democracy in the political field and autocracy and arbitrariness in the industrial field has not also received the attention that it deserves.

Participation improves workers' status at the work-place and in enterprise as a whole. It makes him think not only about the problems of the work-place but also about the larger problems of the progress and prosperity of the enterprise and the industry. It makes him a thinking human being, aware of his rights and duties to the enterprise, the industry and the society. How far he will be allowed to develop his potentialities will depend on his ability and also upon the responses that he will get from his superiors in the organisation. It is admitted on all hands that even without technical qualifications workers know, through constant practice and experience, a lot about the machines and technical processes in which they are engaged and can make useful suggestions for their improvement. The suggestion box system prevalent in many factories is based on that belief. Many factories have reaped substantial benefits out of suggestions made by workers. A share in decision-making will encourage more workers to think of new ideas to increase production and productivity. It will also create a feeling of belonging and establish a new relationship between workers and the enterprise.

Participation : It Does Work

A number of studies have been carried out in U.S.A. about the effects of participation. A scholar who has analysed them has expressed the opinion : "There is hardly a study in the entire literature which fails to demonstrate that satisfaction in work is enhanced or that other generally-acknowledged beneficial consequences accrue from a genuine increase in workers' decision-making power. Such consistency of findings, I submit, is rare in social research. It is not really difficult to explain why participation 'works'; it is almost a matter of common sense that men will take greater pride and pleasure in their work if they are allowed to participate in shaping the policies and

decisions which affect that work."[8]

Examining participation from the point of view of alienation, the scholar states : "Research since the days of the Mayo experiments indicates that satisfaction in work is just as dependent upon fulfilment of the employees' ego needs as upon satisfaction of their physical needs. Psychologists engaged in research on participation have argued that participation, power, and responsibility on the job tend to satisfy basic ego needs. Having the power of participation implies to workers that they are equal partners, collaborators in an enterprise, rather than passive, coerced, and unwilling subordinates. Participation strengthens the belief, or creates it, that they, the workers, are worthy of being consulted, that they are intelligent and competent. When workers make the frequently bitter remark that "they don't pay you to think around here", they are really saying that their opinions are not valued, that they are not regarded as competent collaborators, but merely as living automatons, passive extensions of the machines they operate. Participation corrects this by gratifying the basic humau needs for respect, appreciation, responsibility, and autonomy."[9] He further points out : "The participating worker is an involved worker, for his job becomes an extension of himself and by his decisions he is creating his work, modifying and regulating it. As he is more involved in his work, he becomes more committed to it, and being more committed, he naturally derives more satisfaction from it."[10]

An argument against participation that is usually put forward is that workers are not interested in it, that they are interested only in wages and allowances and other benefits and that they would not like to be bothered with larger problems of distribution and sale and provision of finance and securing of raw materials and expansion and diversification. In the first place, it is not fair to make such an assumption without giving workers a chance to consider those problems. Secondly, consideration of those problems becomes necessary in order to maintain and improve wages, allowances and other benefits in which workers are admittedly interested. Thirdly, even if they are not interested, it is necessary to make them interested in order to increase

8. *Self Management*, selected readings, Jaroslav Vanek, Penguin Edition, England, p. 324.
9. *ibid*, p. 329,
10. *Ibid*, p. 330.

production and productivity and to maintain industrial harmony. And lastly, even if all do not take interest some may, and it is not fair to deny them that opportunity. The scholar, already quoted, has an effective answer to this argument based on the apathy of workers. He writes : "If apathy were sufficient grounds for dismantling the democratic process, then we might have to dispense with political democracy altogether in the United States, for Americans are notoriously apathetic when it comes to political activity. In the presidential election of 1964 in the United States, despite the overwhelming political saturation of the mass media, less than two-thirds of the eligible voters cast their ballots for president (63 percent) and less than 60 per cent voted for congressional candidates. In no off-year election from 1922 to 1962 have so much as 50 per cent of the electorate come to the polls, and in some years, the proportion fell below one-third."[11] He points further that, according to surveys, job interest, commitment and satisfaction are all generally heightened by the introduction of various forms of participation.

The argument raises the big issue, if society is going to remain satisfied only with the raising of a gigantic industrial structure and if it is not going to take steps to humanise it. Working as hands, as adjuncts to lifeless machines, workers may create it, but without a stake in it, they may also destroy it one day out of sheer boredom and frustration. Industrial society cannot afford to lose sight of that danger, particularly if it desires to continue as a democratic society. Democracy demands its extension to the industrial field which means that those who work in industries, in the larger sense of the term, must have a say not only in determining the terms and conditions of their daily work, but also in determining the scope, the objectives and methods of industries in which they work. That is what participation is about in its more comprehensive aspect.

Participation Must Pervade through Entire Organisation

Participation can be at various levels and also of various types. The levels may range from the shop-floor to the board room. Participation

11. *Ibid*, p. 332.

at the board-room level without participation at shop-floor level does not prove effective. That has been the experience in India. It does not bring about any change in the methods of management at lower levels. They continue to be as arbitrary or bureaucratic as before. Participation at shop-floor level will not also prove particularly effective unless it is followed by participation at higher levels. Without the latter, decisions taken at the shop-floor level may not be implemented. Participation must, therefore, rise from the bottom to the top and the whole management must be, sooner or later, of a participatory type. Cooperation, to be effective, must penetrate the entire organisation. There cannot be co-operation at lower levels and non-cooperation or opposition at higher levels.

Dr. Mhetras has, in his study of labour participation in management, described five stages of participation : "These are : informative participation, consultative participation, associative participation, administrative participation, and decisive participation—the extent of each depending upon the quality of the management and the character of the employees."[12] Some of these stages of participation are in vogue in many concerns which enjoy the benefit of modern management. They are not regarded as participation; they are practised as essential ingredients of modern management. Some of them are also a part of collective bargaining. Participation involves decision-making, however limited the field may be. Workers will not be interested in getting information merely for the sake of getting it; they will not be also interested in consultation merely for the sake of consultation. Information as well as consultation must lead to some decision in taking which they play a part. That to them is participation—participation in taking a decision. The definition of participation that Dr. Mhetras has given fits in with that concept of workers. Participation is, according to him, "sharing the decision-making power by the rank and file of an industrial organisation through their proper representatives, at all the appropriate levels of management, in the entire range of managerial action."[13] He has expressed well the three main purposes of participation. These are "*economic*, to ensure increased production; *Psychological*, to secure full recognition of the importance of the human element in the industry and give the staff and the workers a greater interest in the general operation of the undertaking;

12. *Labour Participation in Management*, V. G. Mhetras, Manaktala, Bombay (1966) p. 18.
13. *ibid*, p. 11.

and *social*, to improve industrial relations and thereby promote industrial harmony and peace."[14]

However, one more purpose can be added, the purpose of helping the establishment of a participative industrial order as a part of a participative political and social order. It is, no doubt, a long-term purpose. But without such a purpose in view, workers' participation in management will not evoke the necessary response from the more far-sighted amongst trade union and management leaders and from social and political workers who influence public opinion.

Participation will not succeed unless it receives the cordial support of the trade union movement. It will fail if it is pursued as a measure to undermine the strength and influence of trade unions. Collective bargaining and healthy industrial relations are as necessary for its success as fair wages and fair conditions of work. It is on the basis of these that participation will ensure increased production and productivity as well as cooperation between the two sides of industry.

Trade unions must realise that participation opens for them new avenues of activity and invests them with new powers and responsibilities—responsibilities such as those of increasing production and productivity and avoiding waste and stoppage of work they will have to shoulder by virtue of the bigger role that they will assume in the management of the enterprise. What Lord Citrine, for many years the General Secretary of British Trades Union Congress, wrote over sixty years back about the new role of trade unions holds good even today. He visualised three courses for the trade union movement. First, trade unions could stop industry, break down the entire system and hope for a revolutionary situation to arise to be turned to the advantage of workers. This "sterile and dangerous" course, Citrine said, had been rejected. Second, unions could stand aside, try to secure some concessions for workers and ask employers to get on with their job. He did not think highly of this course and recommended the third course which was "a planned reconstruction in which the unions will assume a larger share of control in directing industrial changes." Explaining the significance of that course, he wrote: "within the last quarter of a century there have been vast changes in technology, in methods of management, enlargement of the scale of

14. *Ibid*, p. 13.

production, finance and organization. Scientific research, psychological investigation and enlightened commonsense have been applied in working out the principles of a more economical, humane and more efficient systsm of production. What is called, in a convenient phrase, "the rationalisation of industry" is proceeding at a rapid pace in the highly-industrialised communities. Standardised products, simplified processes, scientific planning of workshops, labour saving machinery, improved techniques of management are its guiding principles. Not only do the unions claim to be consulted about their application to the concrete problems of industrial organization, but they have a positive contribution to make in developing them over the whole field of production. The degree of organization they have achieved among the workers gives them the power to assume much more important functions than they have hitherto discharged .....It appears to me to be necessary for the representatives of the organized employers and of the unions to seek a mutual understanding regarding the extension of union responsibility in the matter of industrial organization .... and of the part which the workers' organizations are qualified to play in the promotion of efficiency, economy and scientific development in the production system.

"It lies with the unions, too, to assume responsibility for such representation on works committees, joint councils and boards of management as will follow the development of what I have called the politics of industry, meaning the extension of the principle of joint conference on matters of commercial policy as well as of industrial administration and the regulation of wages and working conditions. Thus, the field of enquiry and negotiation appears to be very wide once the idea of enlarging the functions of trade unions is admitted and a basis of mutual confidence established..."[15] Trade unions in India will find much to learn in these observations of Lord Citrine.

What is being attempted now in India is fairly marginal. Employers have been advised to set up departmental and plant level committees of employees to foster good relations and to consider problems of production and productivity. Public sector undertakings have set up the committees. The private sector is following. Trade unions have welcomed the step. But success will depend not on the number of committees that are set up, but on what tasks are assigned to them and what weight

15. Studies in Industrial Democracy, pp. 75, 76.

is attached to their decisions in the actual work of management. Workers will lose interest in the committees if only inconsequential matters are placed before them and if their decisions are not implemented. They will then meet with the same fate as Works Committees and Joint Management Councils. There is a feeling in many places that the committees and participation which they are supposed to accomplish are only a sop thrown to workers and at best a devise to secure increased production and productivity and that they have no larger social aim in view. On the other hand, if the Government and employers are serious about the committees and about progressively increasing workers' participation in management, they can pave the way for a harmonious and humane industrial and social order.

A reference will be appropriate at this stage to the teachings of Mahatma Gandhi. His theory of trusteeship has not found acceptance in practice. People, however, talk about it and some interesting efforts are being made in other countries to give the idea a concrete shape. Most interesting effort is the Scott Badar Commonwealth which should provide inspiration to enlightened Indian industrialists influenced by the Gandhian thought. It is unlikely that their number will be large and trusteeship may not provide a solution of general application. However, there are many other ideas of Gandhiji which have a deep influence on puclic mind. For example, ideas that capitalists and workers are co-owners, one contributing capital and the other labour, that a worker is not merely a means of production, and that an enterprise is a social institution in which workers and the society have as much interest as the capitalist, are current in the country and shape public opinion. They will go a long way towards creating a suitable atmosphere for the acceptance of the idea of participation. And, in course of time, participation may not remain restricted to management. It may develop into participation in ownership with workers contributing capital out of their savings. It may not happen immediately, but there is no reason why it may not in a decade or two. That can be regarded as a fitting culmination of the social evolution that is taking place.

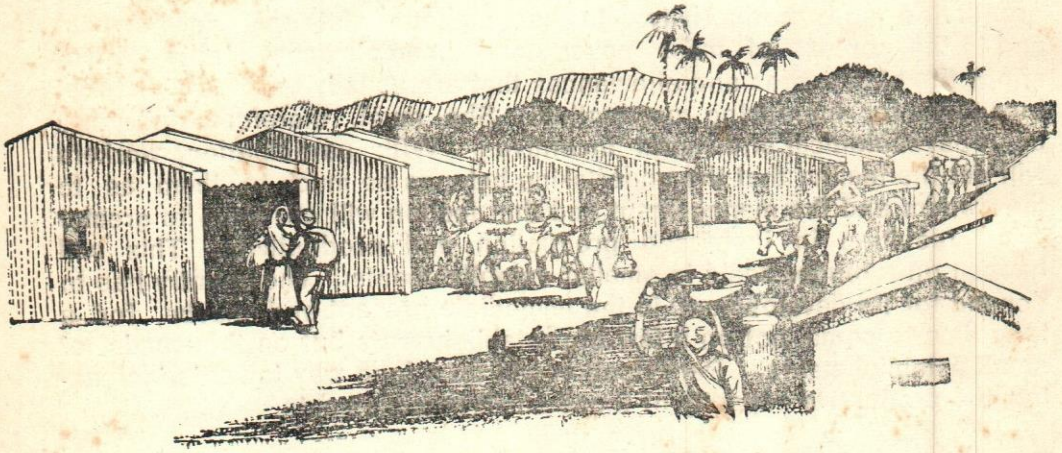
According to the latest amendment to the Constitution, India is now pledged to be a "socialist secular democratic republic." Adherence to socialism had been declared much earlier. Following a path of capitalist or communist economic and industrial development will be contrary to the commitment to socialism and democracy. Discovering and following

a new way, the third way is, therefore, obligatory upon us. The philosophy of participation in the political and in the industrial fields may show us that new way. Workers' participation in management can be regarded as a step in that direction.

A question may be asked : how India can afford participation when its most urgent need is to increase production and productivity. The simple answer is : participation is needed for the very purpose of increasing production and productivity. In her present state of development and in the context of mass poverty and unemployment, India cannot afford the high wages and allowances that are usually used as material incentives for increasing production. She must, therefore, fall back upon psychological and moral incentives. With participation, workers will get the feeling that the undertaking belongs as much to them as to the owners and the management and that feeling will stir them to greater effort resulting in increased production and productivity. This will happen on a bigger scale in smaller establishments. The country has to depend for its development, in the immediate present and, maybe, for a long time to come, not on a few big establishments but on thousands of small establishments. Participation will go a long way towards increasing the productive capacity of those small establishmets.

Development also needs industrial peace. Laws alone cannot secure it. Experience is that strikes take place in spite of laws banning them. Laws are equally ineffective against other forms of protest, such as, go-slow and work to rule. Industrial peace can be secured only through an understanding with workers, expressed through collective bargaining, participation and other forms of cooperation. Participation has a high place in these forms of cooperation as it provides a solid base for harmoinsing the interests of workers and employers. □

As one village died, a new one was born.



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Workers' Participation in Industry : Need for Proper Perspective

M. V. Arunachalam*

For all intents and purposes the schemes of Shop Councils and Joint Councils announced by Government in December 1975 aim at creating all those congenial conditions in industries that go to increase production and enhance productivity. The Shop Councils are to function, keeping in view the interests of increasing production, productivity and overall efficiency of the Shop Department. The Councils are slated not only to assist the management in achieving monthly/yearly production targets but also improved production, productivity and efficiency including elimination of wastes and optimum utilisation of machine capacity and manpower. They are specifically expected to identify areas of low productivity and take necessary corrective steps at shop level to eliminate the contributing factor. Likewise, the Joint Councils are required to deal with matters relating to optimum production, efficiency and fixation of production norms of man and machine for the unit as a whole and with matters concerning the unit or the plant in respect of matters relating to work planning and achieving production targets—more specifically tasks assigned to Shop Council at the Shop/Department levels.

Effective Utilisation of Human and Material Resources : Basic Aim of Participation

If this is the perspective, and it cannot be otherwise, a number of commitments automatically follow. First and foremost, it implies a harmony within the enterprise in which the interests of each individual and group can find expression in tangible things like efficient running of machines, increased production, quality control etc. Participation in industry, in this sense, can be regarded as an important training of individual to develop his capacities for participation at higher level. But effective utilisation of human and material resources of the enterprise is the basic objective of the participative schemes we have opted for.

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The underlying postulates of the schemes obviously are that workers in the unit, wherever placed, have ideas which can be not only useful but fruitfully utilised. This simple form of participation may lead to effective communication upwards that is essential to sound decision-making at the top. Moreover, workers may accept decisions better if they have participated in them and when they know that they share in decisions that affect them. There cannot be two opinions on the point that workers may work more intelligently if through participation in decision-making they are better informed about the reasons for and the intention of a decision. It is also equally true that workers' participation may foster more cooperative attitudes amongst workers and management, thus raising efficiency by improving teamwork and reducing loss of efficiency arising from industrial disputes. It is maintained that the satisfaction of human needs for participation and the recognition of the employees' right to be treated as intelligent human beings desirous of controlling their own destiny will increase efficiency by increasing their willingness to work and to contribute their best to the enterprise.

Workers—A Special Kind of Factor of Production

To advocate workers' participation in management as a means of improving efficiency thus implies a view of the workers as a special kind of 'factor of production' with certain peculiar characteristics which must be taken into account if it is to be used with maximum effectiveness. Here we enter the most sensitive but very important field of beliefs and attitudes of workers towards the participatory arrangement. After all, our involvement in any action-oriented system, like the participation in industry, is predicated on our own belief-attitude complex. If the commitment is with reservations, any scheme, howsoever good-intentioned, is bound to flounder. On the other hand, uninhibited participation will yield unexpected results, howsoever complex and difficult its operation might be.

It must, therefore, be realised that reliable information on workers' attitudes is vital to effective implementation of the two schemes announced by Government. The workers' and managers' propensity to participate or cooperate in translating an ideological objective into a feasible goal is dependent upon two factors : willingness to participate and ability to participate. Many of our schemes have not taken off the ground

because workers' willingness to participate in management is usually taken for granted. It is naturally pertinent to ask several questions : In what aspects of management are the workers, in fact, interested ? Are all workers interested in all aspects ? Are all workers interested in all aspects or are certain aspects of little interest to some categories of workers and more to others ? While we might be tempted to assume, *a priori* the interest of the workers in the running of the enterprises, and their desire to be in some degree associated with the framing of decisions that affect them, a number of investigations carried out in recent years in different countries make this appear more than doubtful. For instance, a study of some Paris office workers in France led the investigator to think that participation in decisions and consequently in responsibilities would be in general rather suspect as a menace to personal liberty and moral ease, at least at the lower levels of the occupational hierarchy where, in the main, attitudes of withdrawal and indeed of passive resistance are regarded the best safeguard. It is, therefore, important that a meaningful study of the reaction pattern of workers is conducted so that the impediments in the working of the schemes are removed.

While on this point, it is essential to distinguish between the views of workers' organisations and the attitudes of workers themselves, both those who are members of such organisations and those who are not. Apart from the merits of various ideological and political positions, and even when these issues have been settled in favour of a particular system of participation, reliable information on workers' attitudes is important. Institutions that ignore workers' attitudes are likely to breed apathy and frustration. It is important to know not only the proportion of the work-force holding various attitudes, but also the extent to which there are differences between various groups and types of workers.

Need for Periodic Evaluation of Participation Schemes

The National Productivity Council is the right institution to carry out objective, competent opinion surveys that can provide more comprehensive information than individual opinion or hearsay and can supply a check on bias and propaganda. Periodic evaluation of the working of the Shop and Joint Councils, wherever they are set up, would help not only to improve the contents of the scheme but would also encourage those

units which are in the process of setting them up.

Reaction-pattern analysis apart, one important ingredient of evaluative studies is to enquire on the effects of workers participation which are likely to be quite complex and probably differ in some respects from the effects intended by Government. In certain circumstances, some of the effects may even run in the directions opposite to that hoped for. The effects of workers' participation in industry in the early stages of its installation are also likely to differ from its long-term impact.

In considering the effects of workers' participation from a functional standpoint, we may ask first whether the practical working of these schemes in a given context is functional in terms of the needs of the enterprise itself. In other words, to what extent does the workers' participation in practice contribute to certain specific goals such as efficiency, quality of production, innovation, expansion, etc. The exact point that has to be appreciated, therefore, is that by deepening our understanding of the factors which govern its effects, this evaluative research should help policy-makers and practitioners to formulate realistic goals for workers' participation. By analysing difficulties experienced in the practical operation of workers' participation, the research will direct attention to action that needs to be taken if workers' participation is to achieve its intended goals. The research may also indicate the kinds of training that may be required to enable managers and workers to operate a system of workers' participation effectively.

The limited experience that we have of the working of Shop and Joint Councils brings into sharp focus the problems arising out of the multiplicity and intra-union rivalries. The experience also unfolds the truth that, howsoever utilitarian an idea may be, unless trade unions lend their full support to its implementation everything will be lost in the wilderness of return-submitting and paper work. Trade unions, therefore, have not only to accept full commitment to the schemes but also close down their ideological differences with sister organisations. After all, higher level of production is not a sectarian issue; it is a national commitment and economic compulsion. They have also to get away from the traditional outlook of treating all management action as suspect. Management is a multi-faceted arrangement of running an enterprise. And it is fundamentally wrong to believe that unless one shared in the financial management all other associations become a mere show business. Decision-making,

after all, is not a strait-jacket affair : implicit in it are various decision levels and there is involved a progression from shop-floor level through department to the Board of Directors. Higher the level of decision-making, complicated are the processes and training and experience become the primary considerations. It is, therefore, better to begin at grass root level than not to begin at all. What could be a better way to begin than to participate in achieving better results out of the labour-machine joint on which lies the ultimate salvation from want. As the experience accumulates, a creative atmosphere will set in for the introduction of the workers' sector in industry that is being talked about so much now a days. Let some progress be made and once the process begins the progress will create its own dynamics.

Important Issue of Sharing Gains of Productivity

The issues surrounding the participatory schemes have really come to grief not mainly on account of lack of enthusiasm on the part of workers or managements, but primarily due to the controversy centering around 'sharing the gains' of enhanced productivity. The confusion has emanated from a narrowed construction of the inter-play of the various factors of production that finally leads to increased levels of productivity. But everyone must realise that productivity growth is not a matter of concern for workers alone. Productivity rises or falls with changes in technology, with management skill and with the quality, flow and availability of labour, and capital resources in an economy. It is affected by the effectiveness of Government providing a proper climate of economic, political and social justice, e.g., law and order, public services, trade policy, to encourage all factors of production towards increasing productivity. It generally increases with the size of the market upon which production economics often depend. It increases more during business expansion than contraction. And, in the broader perspective, it is affected by the relative changes in the productivity in all other countries with which a nation's trade is significant.

It has also to be conceded that we have not been able to devise viable schemes for sharing the gains which are acceptable to all. We have tended to ignore two important constituents of industrial operations, the consumers and those sections of our labour force which do not have any means of sustenance. Our aim for coming decades should, therefore,

be to divert all extra gains to further productive uses so that not only more employment opportunities are created but cheaper goods are available to the masses.

This also is a pointer to the proposition that managements too need reorientation of their views. Like workers, they have attitudes that are more or less favourable to participation or perhaps completely opposed to it. The capacities of managers, therefore, to operate a system of workers' participation are just as important as workers' capacity to contribute to managerial decisions. Managers, of course, cannot be expected to adapt to unfamiliar forms of organisation and decision-making overnight, but the compulsions of time demand that they learn.

Evolution of industrial organisations towards a participatory enterprise will be a process of social learning, the outcome of which cannot be foreseen. It can, however, be safely concluded that participation, by its nature, must be dynamic, leaving room for several alternatives. If the outcome of participation were predictable, the hands of the participants would be tied in advance. This is the Achilles' heel of participation. Yet, efforts must be made to remove the uncertainties and to make the schemes operate in as realistic a fashion as possible. □

Participative Management : How to Ensure Its Success ?

S. D. Punekar*

"Participative management", in actual practice, may mean labour participation in management of industry It is application of industrial democracy in its three characteristics—association of workers and management, basis of equality and voluntarism. This concept is the antithesis of master-servant relationship. It is also in contrast to the state intervention in labour matters, which is in evidence in India, particularly after Independence.

Concept

The concept of participative management rests on the principle of co-partnership between management and Labour. Under this principle, decisions relating to the concern are taken by both the parties and are not unilateral. Each party should have respect for the other's bona-fides and should co-operate with it in the right spirit of making the common concern successful.

The concept of participative management has recently been brought to limelight by the 20-Point Programme announced by the Prime Minister on July 1, 1975. Point 15 of this Programme relates to this concept and it states : "Schemes for workers' participation in industries, particularly at the shop-floor and in production programmes, will be finalised." To facilitate the implementation of this programme in action, the Ministry of Labour, Government of India, brought out a scheme for workers' participation in industry at shop-floor and plant level on October 30, 1975. It is now more than a year since the announcement of the draft scheme. From a recent survey, conducted by *Samachar* (our national press agency), it seems that the scheme covers nearly 25 lakhs of industrial workers employed in such industries as steel, aluminium, copper, fertiliser, mica, cement, textiles, paper, sugar, footwear, jute, glass, firebricks and engineering. Participative management has thus already become a success quantitatively. It may, however, be worth

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considering the measures to make participative management successful qualitatively and also on a permanent footing.

One way of assuming success of participative management is to review the earlier measures taken in this field and to see that the mistakes which led to their failure do not occur. Participative management, in its rudimentary form, commenced with Independence and we have at least two experiments in the forms of (a) Joint committees and works committees (1946-47) and (b) the joint management councils (1958). Both these experiments met with failure and it is worthwhile to find out the causes of their failure, so that they might be carefully avoided in the third experiment we are now having under the 20-Point Programme. Besides, consideration need also be given to the pronouncements of the Five-Year Plans and the Code of Discipline in this respect.

Earlier Experiments

The Bombay Industrial Relation Act, 1946 provided for the settting up of the joint committees, to maintain a regular channel of employer-employee communication and to secure speedy consideration and removal of difficulties of the day-to-day work. Under the U. P. Industrial Disputes Act, 1947, the State Government undertakings employing 100 or more workmen and co-operative undertakings are required to form works councils. Both the Joint committees and the works councils failed, as can be seen from statistics about them, main reasons for failure being indifference of both the parties and general hostility of trade unions.

Works Committees

The Industrial Disputes Act, 1947 (section 3) requires an industrial establishment with 100 workers or more to set up a works committee. if so directed by the State Government. The committee is "to promote measures for securing and preserving amity and good relations between the employer and workmen and, to that end, to comment upon matters of their common interest or concern and endeavour to settle any material differences of opinion in respect of such matters." These words

taken from the Act indicate the main duties of the works committee as: provision of an industrial relations machinery for labour-management co-operation; collective bargaining agency for the two parties ; and a grievance procedure machinery. The works committee, in addition, can serve as a joint committee for matters like health, safety, welfare, and production, as well as a training centre for potential internal leaders.

The works committees failed for various reasons; opposition by trade unions, assignment of minor functions, exclusion of collective bargaining issues, lack of interest among workers, hostility of the middle supervisory personnel, reluctance of management to deal properly and the lack of competence shown by the workers' representatives on the works committees.

Joint Management Councils

The second experiment in participative management started in 1958 with the establishment of Joint Management Councils. These come into existence as a result of our acceptance of the socialistic pattern of society as the goal (1954); Indian Labour Conference's recommendation to encourage participation of workers in industry (1955); the Industrial Policy Resolution's statement—"In a socialist democracy, labour is a partner in the common task of development and should participate in it with enthusiasm" (1956); and the second Five-Year Plan's observation (1956-61) "For the successful implementation of the plan increased association of labour with management is necessary. Such a measure would help in (a) promoting increased productivity for the general benefit of the enterprise, the employees and the community (b) giving employees a better understanding of their role in the working of the industry and the process of production, and (c) satisfying the workers' urge for self-expression, thus leading to industrial peace, better relations and increased cooperation".

The immediate causes were the report of a tripartite study group, which went to Europe and recommended a scheme for participative management (1957) and a model agreement regarding establishment of such councils (1958). The objectives of the JMCs were : (1) to improve the working and living conditions of employees ; (2) to improve productivity; (3) to

encourage suggestions from employees; (4) to assist in the administration of laws and agreements; (5) to serve generally an authentic channel of communication between management and employees; and (6) to create in the employees a live sense of participation. The councils are to be consulted by the management on administration of standing orders, introduction of new methods of production and closure, reduction in or cessation of production. They have the right to receive information, discuss and give suggestions on general economic situation, state of the market, production and sales programmes, organisation and general running of the concern methods of manufacture and work, annual balance sheet and profit and loss statement and long-term plans for expansion, reemployment, etc. They were to be entrusted with responsibility in respect of administration of welfare measures, supervision of safety measures, vocational training, apprenticeship schemes, schedules of working hours, breaks and holidays and rewards for suggestions. Matters of collective bargaining like wages, bonus, etc., were excluded from the scope of the councils.

The experiment failed because of various reasons such as the lack of interest shown both by the public and the private sectors in conducting the experiment, non-applicability to large concerns, lack of proper definition of participation, exclusion of important functions from the purview of the councils, absence of the spirit of participation and strained labour-management relations.

The Present Experiment

The "Scheme for workers' participation in industry at shop-floor and plant level," announced on October 30, 1975 is a draft scheme and is "flexible so as to allow variations to suit local conditions." Initially it will be implemented through executive action, rather than legislative sanction. In the first instance, it is implemented in manufacturing and mining industries, in units having 500 and more workers. Participative management is at two levels—Shop Councils at the department level and Joint Council at the plant level. Both the councils will have an equal number of employers' and employees' representatives, the latter being elected through a prescribed procedure. The decisions, which are to be by concensus (and not by voting) are mandatory. The functions of the Shop Council include:

a) Safety measures in the department;

b) General discipline in the department;

c) Working conditions;

d) Welfare and health measures as to the working in the shop or department;

e) Elimination of fatigue;

f) Production issues such as raw materials planning, work allocation, production programmes and norms on work-related behaviour including type and quality of supervision, on-the-shop training etc, and

g) Any other matter referred to the shop council by the management or the recognised union or the joint council.

The functions of the Joint Council are:

1. problems affecting more than one department or shop.
2. problems emanating from shop councils which remain unresolved;
3. matters concerning the unit or plant as whole in respect of issues in connection with work planning, work-load manning;
4. development of skills and abilities of workmen, including abilities consistent with the training and development budget;
5. general administration of standing orders including their amendment if and when needed;
6. preparation of schedules of working hours and break-up of holidays;
7. payment of rewards for valuable suggestions received from workers.
8. matters relating to purchase of raw materials and their economic use, including improvements in quality;
9. general health, welfare and safety measures for the unit or plant; and
10. any other matter agreed upon by the employers and the recognised union or the workmen's representatives, as the case may be.

Three Experiments Compared

The shops/joint councils scheme appears to be an improvement over works committees/joint management councils in three respects:

(1) The decisions of the former are mandatory and hence whould be implemented. (2) The concept and levels of participation have now been clearly defined, eliminating the earlier confusion. (3) The participation has gone down to the shop-floor.

There are, however, some drawbacks still left. These drawbacks and the measures for their removal are:

(1) Probable opposition by the trade unions; this can be minimised if the representative trade unions play an important role in making the shops/joint councils a success.

(2) Lack of interest shown by workers; this is due to the exclusion of important topics (like wage, bonus, etc.) from the purview of the councils; the trade unions, to whom these topics have been assigned, can convince the workers about the exclusion of collective bargaining issues. If the workers' representatives on the councils are trade union members, the conflict should not arise. In any case, it should be the duty of trade unions to encourage the workers to take an active interest in the councils by electing their proper representatives and ensuring that the experiment is made a success.

(3) Hostility of middle supervisory personnel can be minimised by giving due representation to these people on the councils.

(4) Indifference by the management can be overcome by making them an active partner in the experiment, which, if successful, would benefit both the parties.

(5) The deficiencies in the representation of the management and workers on the councils can be removed by proper training programmes, especially arranged for them. By such training, a congenial atmosphere for participation can be created, the various aspects of participation properly defined and probable causes coming in the way of participation management could be removed.

Conclusion

Fortunately, many big concerns, both in the public and private sectors, have opted for this experiment. As a part of the 20-Point Progaramme, participative management must be a success. To ensure its success, it is necessary to identify the causes of failure of works committees/joint management councils and to eliminate them. Such a line of action would ensure success of the new experiment in participative management.

□

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Workers' Participation in Management : An Overview

N.K. Somani*

Every new idea developed as a result of a refinement in the management sciences floats around in the managerial world in various phases, before it is applied in real-life situations in industry. These phases vary from a superficial and fashionable flirtation with the concept in the Board room epilogues to a gingerly application of the same under planned observation. Workers' participation in management is an idea in the same embryonic stage in our country whose desirability is being now widely accepted and which is being talked about a great deal. However, no adequate scientific planning and careful thinking seem to have gone into the greater aspect of grafting this new idea to our industrial body.

A great deal of attitudinal changes is necessary both on the part of the establishment and workers as well as trade unions to enable the industrial society to start this long and fruitful journey towards participation. Before any serious attempts are made to educate the large mass of workers in respect of their importance to the economy and to the unit they work for, decision-makers at the top level would have to apply their minds to determine the genesis and logic of workers' participation. It has to be clearly brought out both at the level of the trade unions as well as company managements as to why workers' participation is necessary at all. Is it because we would like to join the endless stream of wreath-layers to the new Rajghat of the 20-point programme ? Is it because we can buy some more time from the respective trade unions with whom we deal at least once a year ? Do we wish to introduce this system because the Government of the day wants us to do so ? Unless we clarify these issues in our minds and are entirely convinced that participation is gainful for both workers and industry, not much is likely to be achieved in respect of the results on an abiding basis.

If we decide that this participation is good and healthy, then we would have to go into the sociological and cultural patterns of the Indian society. Our culture has thrown out largely paternalistic

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attitudes both within the factory as well as family worlds. In spite of several highly visible cases of failure of industrial relations as a result of myopic and paternal interest taken by various managements for the welfare and interest of their workers, there seems to be very little change in our attitudes to deal with these problems in an objective and institutionalised manner. Whenever this benevolent policy framework fails, management goes to the other extreme of applying the ruthless tactics of a cold war which hardens attitudes all round—which is no solution to any problem at all. Foremen, Superintendents and even Managing Directors go to a worker's quarter to condole a death in his family. At the same time, there is no secular attempt to establish healthy and harmonious relations based on clearly defined policies and practices. There is enough research and documentation on this subject which needs no further space presently.

Some Western Experiences

Before we consider seriously the scenerio of workers' participation at various levels, it would be useful to recall a few Western experiences in this field. While patterns differ importantly in Sweden, Great Britain and the United States, the trend towards cooperation is growing in all these three countries in their own way. A feature in the *Harvard Business Review* (May/June 1976, entitled "Workers' Participation : Contrasts in Three Countries") points out that in 1974, Ford Foundation took half a dozen production workers from the U. S. auto assembly lines and placed them in self-managing work groups in Sweden. The Americans did not like it at all. Even the British comments regarding the Swedish experiments dismiss the experiment as a typical Swedish attempt. While workers in these respective countries are engaged in the manufacture and assembly of the Volvos, MGs and Buicks which may have wheels, fenders and horns in common, these workers are products of quite dissimilar work situations and react in their own typical manner.

Most of the progress in Swedish participation has occurred since the late 1960s when emphasis on the "quality of life" was brought into sharp focus. Industries started to have trouble in recruiting young workers as a result of numerous factors. While one is apt to dismiss

the claim that Swedish workmen are the country's most precious national assets and the reason that they have such a high standard of affluence is due to their working very hard, the fact remains that in Sweden the overall good of society is a far more compelling incentive than the demands of a single individual. While in the early twentieth century workers and trade uinons had conceded the rights of the management to hire and fire workers and to apportion the work amongst them, this right was taken away in 1972 as a result of a new legislation that makes employees virtually non-dismissable after 6 months. In 1973, Sweden introduced the employee-director law calling for direct election of blue-collar and white-collar representatives to the Board of every company having more than 200 workers. Since 1975, companies are required to give works councils full access to all financial figures and also assistance of a financial consultant if they do not understand the figures appropriately.

While the British managers complain that the Swedish workers waste a great deal of time in committee meetings and confabulations always at company expense, it is considered not only a social imperative in Sweden, but a factor which pays for itself in the long run. The participative movement there does not confine to the shop-floor. A highly-publicised Volvo programme has several structural aspects that give credibility to the idea of participation in an assembly line environment.

The British system is a class struggle based on the adversary roles of collective bargaining. The "they *v/s* us" outlook is extremely strong while the establishment of working class solidarity gets much more emphasis in the British industry than in Sweden. The current legislation is now making it compulsory for all workers to join a union. The perquisites enjoyed by the managers are defined vigorously and followed by the unions themselves. Meals are served separately in the workers' canteen, foremen's room, junior staff room, senior staff room and the executive dining room. The study goes on to establish that class barriers still stand very vigorously in Britain. Presently there is very little law requiring employee participation. However, the outlook is rapidly changing now and all the three major political parties included the workers' participation in the 1975 election manifestos A handful of companies started this practice in real earnest and have made it clear that they regard real participation as an imperative.

In the U. S. with its huge, highly skilled and mobile work force, the attitudes towards participation are varied. Americans tend to give a fairly narrow definition based on a management style with overtones of Douglas McGregor's theory. Complete freedom to lay-off and retrench is another aspect which makes unions and workers themselves rather wary of job enrichment and abounding enthusiasm in raising productivity.

Certain common features emerge from this study of three different working cultures. One is the growing desire from the workers for greater involvement in decision-making, thereby obtaining a greater satisfaction from work. While management responses will be different in every country and probably in every company, the trend, however, seems to be fairly towards the participative management on an international basis.

The Home Scene

Coming back to our own scenario at home, when decision-makers talk about inducting workers into decision-making processes, they ought to be clear in their minds as to what is desirable and feasible. Intra-union conflicts apart, the low level of education and lack of any decision-making exposure at all make these exercises a very premature one, at least presently. We should also not tend to overlook the sore fact that a large body of middle and higher level managers, viz., officers in various companies are suffering today from a lack of authority and decision-making opportunity. These officers are vegetating largely as post offices between the top and bottom of the company and their cumulative frustrations and the lack of security are driving them towards militant trade-unionism. It is hoped, therefore, that this particular imbalance will be restored as a necessary concomitant before involving the workers at higher levels.

A great deal of research has also been done in the field of dependency in Indian Culture (Please see Dr. Gouranga P. Chattopadhyay's articles in *Indian Management*, Sept./Oct. 1975 and other studies). All these studies tend to indicate that an average Indian would not like to take a decision if he or she can help it. This also points out the genesis for this kind of avoidance of responsibility, the remedy for which begins

when the child is born and the environment in which he or she is brought up. A great deal of our attitudes towards work and specially team work and taking decisions that rightfully belongs to us will have to change before our work culture is improved.

Quite clearly, one has to commence to educate the large body of workers in respect of their elementary matters like quality consciousness, cost reduction, company image, good house-keeping, wasteful practices, absenteeism, alcoholism etc. This would be a good beginning.

Does a worker know the amount of money involved if a ton of paper is rejected at the final stages as a result of careless handling or lack of quality control? If he were to be told that the loss to the country's or company's economy would exceed Rs. 3,500 per ton, he may suddenly become very proud in being careful to handle so much money. If a quality supervisor in an exporting textile mills knows that foreign exchange and the country's name is involved if faulty/sub-standard goods are produced and sent abroad, would he not react differently ? If a lack of supervision or vigilance results in the manufacturing and marketing of sub-standard life-saving drugs, would not a patient die ? If valuable steel-making furnaces and other equipments are not maintained properly (as per clearly-defined schedules), the country's steel-making and foreign exchange will suffer an amount of Rs. X per day. I believe, there are such matters that the workers (both individuals and groups) will handle with a great degree of realism and responsibility if they know how important a job they are doing.

So much for this kind of information or involvement. There are many other matters of company's interest, the administration of which should be left to the workers and their representatives. Let us take the case of mass exodus during summer months and regular bouts of absenteeism. No industrial economist has yet worked out additional costs to industry by these vents, which forces establishments to hire *badlis* and casuals on a regular basis. If only a part of these additional costs could be offered on a rational basis to workers, they would certainly not make regular forays to non-working activities. Some educational programme should be launched to dissuade workers and their families to go to "*muluk*" or "*Desh*" for deaths of distant relatives, religious rituals, ceremonies, etc. In any case, the workers

(as a group) of a particular department have to be given a clear responsibility of producing a certain quantum and they should design the leave periods of various sections (barring emergencies) and individuals with an eye on the ability to deliver the goods. This is expected to improve the overall attendance and willingness to work.

There are many disputes and offences on the shop-floor which lead to unnecessarily rigid positions in the present set-up. The foreman/shift-incharge, in many cases lodges a formal complaint which is then sent to the labour department. As soon as an event is formalised, attitudes harden up and "they *v/s* us" starts boiling up. One always wonders as to why all supervisors/managers at plant level do not equip themselves as "labour officers" in the sense of defusing the event and settling the matter then and there Even in such episodes, where offences of a serious nature are not involved, it would be prudent and wholesome if workers' units are entrusted with the task of grievance redressal. These then would become insignificant family affairs and are likely to be settled across the board. This is another area where meaningful participation of workers is worthy of trial.

A lot of bad blood occurs when the same person is compelled to attend to the night shift production. This ennervates the worker. The morale of the third shift is invariably the lowest in the world as it is. This need not be so. It workers themselves are involved in allocating shifts to individuals and groups, they would keep in mind the various issues involved. A rotation would also occur to the improvement of all.

Repetitive work of an assembly nature always fetches boredom and lack of interest. Group therapy in this area has always provided better results. Job rotation and even job enrichment are matters where workers can be better judges of their colleagues than the world's best assessors or programmers. Why not leave it to them?

Corporate programmes in the field of social welfare suffer generally in our country as a result of anaemic support from workers. Family planning, better house-keeping, health projects, training for better skills, abstention from gambling and alcoholism, sports, recreation—are areas where unilateral decisions do not always click. Each area by itself is a major avenue for achievement. The welfare officers make

up reports and manage to spend allocated budgets somehow. This should not be enough. Workers and their families are clear candidates for selling the idea and helping companies to implement these desirable projects.

One more area to ponder. Every company has a number of projects sponsored and supported in the shape of consumer cooperatives, housing facilities, medical and other cultural activities. Today, even a Satyanarain Mahapuja's permission has to be obtained through various levels. Most of the other projects are designed by officers who are remote from the life and culture of the workers. These activities can best be managed by workers themselves.

One may not get the impression that a distinct attempt is being made to put off workers' participation in management by perusal of the foregoing suggestions. One woul like (a) the environment to be created whereby the workers would be exposed to decision-making processes over a period of time and a galaxy of manageable issues and (b) the restoration of workers and officers to their rightful places in the interest of a more rapid socio-economic development through illustrative examples in this presentation. Only then, in future, can we venture out to get workers intrinsically involved in the complex process of management at higher levels. □

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Workers' Participation in Management : In Retrospect

D. C. Kothari*

The concept of workers' participation in management, till recently, was considered to be a contradiction in terms by critics who viewed industrial relations only in terms of strife between workmen and management. In reality, however, participation or consultation in many areas has been often the rule rather than the exception. While it is true that there was once a great deal of suspicion between the two groups as there is between any two groups of competing interests, it is also true that both labour and management have matured to some extent during the last two decades. This limited maturity of relationship has opened up areas where mutual interests result in effective participation. Where participation has been successful the parties have generally started realising that neither is destined to disappear or even weaken and each group's own best interests can be served by maintaining peaceful relations and active participation.

Review of Past Experiences

In India, the results flowing from different forms of participation at various levels have continued to be a subject matter of controversy. The enactment for the constitution of the Works Committee under the Industrial Disputes Act, 1947 was one such move in that direction. The works committee was intended to promote measures for securige and preserving amity and good relations between the employer and workmen and, to that end, to comment upon matters of their common interest or concern and endeavour to compose any material difference of opinion in respect of such matters. However, it was never intended to supplant or supersede the unions for the purpose of collective bargaining or to consider any real or substantial changes in the conditions of service. Conditions of work such as ventilation and lighting, amenities like drinking water and canteens, safety and accident prevention, adjustment of festival and national holidays, educational and recreational activities, etc., were among the subjects falling within the

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scope of the Works Committee. Matters such as wages and allowances, bonus, rationalisation, retrenchment lay-off, etc., were excluded from the purview of the Works Committee. However, it was generally admitted that the contribution of the Works Committee was far from satisfactory owing to factors like inter-union rivalries, union antipathy and the attitude of members in trying to raise extraneous matters in the Works Committee discussions. Conflict between areas of operation of Works Committees and Unions and the helpless position of the Managements was also said to have led to this failure.

The avoidable friction due to unilateral introduction of changes in certain conditions of service likely to adversely affect the workmen was further sought to be avoided by introducing Chapter II A in the Industrial Disputes Act during the year 1957, by which the employer was required to give clear 21 days notice of the proposed change to the concerned workmen on matters of wages, allowances, hours of work, rest intervals, holidays, leave, rationalisation, shift working, etc.

Besides the Industrial Disputes Act, the Factories Act, 1948 has also provided for participation of the workmen in certain matters of decision concerning the workmen. It has provided for the constitution of the Canteen Management Committees with representation of the workmen. Similarly, in the matter of granting annual leave with wages to workmen without affecting continuity of normal work, the Factories Act has provided for evolving a scheme by the employer in consultation with the workmen through the Works Committee or such other committees. As regards festival holidays to be granted to the workmen, the statutes on national and festival holidays in a number of states provide for consultation of the workmen in choosing the festival holidays for the unit, and once so chosen, any change of festival holidays is to be made only in consultation with the workmen.

Experience shows that, excepting in certain limited areas where the workmen did not have to undergo any additional responsibility or strain, participation has been seen merely on paper rather than in action. Even in institutions such as Employees' Cooperative Stores or Employees' Cooperative Credit Societies which offer maximum scope for real participation on the part of the workmen, the experience is in no way better and it is well known that the administration and the services in Cooperative Institutions managed on authoritarian lines have been relatively

more stable and sound than those institutions managed on purely democratic or participative lines. Of course, this is no indication that participative management never meets with success. It only means that the rank and file in most of the industries have not yet attained the maturity to undertake the responsibilities of management. The various committees constituted under statutes or voluntarily such as Works Committees, Unit Production Committees, Welfare Committees, Safety Committees, Canteen Management Committees, etc., have only functioned mostly as Grievance Committees or Demand Committees and have ultimately failed to accomplish the desired results due to lack of maturity and understanding on the part of workers' representatives.

Deeply concerned with the discouraging results of the functioning of the Works Committees and other committees, the Planning Commission while considering the Government of India's policy on labour for the Second Five Year Plan had emphasised the need for the creation of industrial democracy through increased association of labour with management. The Study Group, constituted for the purpose, examined the conditions obtaining in the industries and the results of various experiments on participative management in other countries and suggested that Joint Management Councils may be set up in industries for consultation on standing orders, retrenchment, rationalisation, closure, etc. Such Joint Management Councils were set up in 1959 on an experimental basis in certain selected industries, where the essential industrial climate for effective functioning of such councils was comparatively favourable. The scope of these Councils was extended to receive information and to give suggestions regarding the general economic situation of the undertaking, organisation and methods of work, long-term plans for expansion, etc., as also administration of welfare measures, supervision of safety measures, operation of vocational training and apprenticeship schemes, etc. The Study Group had specifically excluded all matters like wages and bonus, which are subjects for collective bargaining and individual grievances, from the scope of the Council. It said, "in short, creation of new rights as between employers and workers should be outside the jurisdiction of the Management Councils." This scheme was based on the assumption that given an opportunity, the workers can participate effectively in the decision-making process at least in certain spheres. The primary aims of constituting such Joint Management Councils were: (1) promotion of productivity for the benefit of all concerned; (2) giving employees better

understanding of their role and importance in the working of the industry and in the process of production and (3) satisfying the urge for self expression. However, in practice the performance of the Joint Management Councils was found to be no better than the Works Committee.

New Scheme : Need to Make it Success

The scheme of Workers' Participation in Industry, formulated in pursuance of the Prime Minister's 20-Point Programme, is yet another attempt towards ensuring higher productivity through increased and effective participation by the workmen in the management. The scheme, generally speaking, is nothing but the old wine in a new bottle, excepting that separate Councils are to be formed at the shop level and also at the undertaking level.

It is not the form that matters, but the spirit in which the scheme is accepted by the parties which would really lead to its efficient functioning. It has generally been felt that in the present context of multiplicity of trade unions and in the absence of a single strong trade union in an atmosphere which lacks right attitude towards industrial relations, any undue emphasis on workers' participation in management, when the time is not yet ripe for it, may not yield the expected results. However, it is necessary to keep on striving to obtain the necessary environment to enable this to be done and to once again give a fair trial to the scheme in the present changed atmosphere with an open mind and to make a fresh start with the aim of achieving the ultimate goal of industrial democracy.

Viewed from the experiences in the past, it would be advisable for the parties to bear the following points in mind to make this joint venture mutually beneficial and to make participation worth its name.

1. The parties should be fully aware of their duties as they do about their rights and confine themselves to the subject matters enumerated in the scheme for discussion in the various councils. Care should be taken to see that these councils are not once again reduced to grievance councils as in the past or to mistake them for forums for collective bargaining.

2. The trade unions should get reconciled to the idea that these

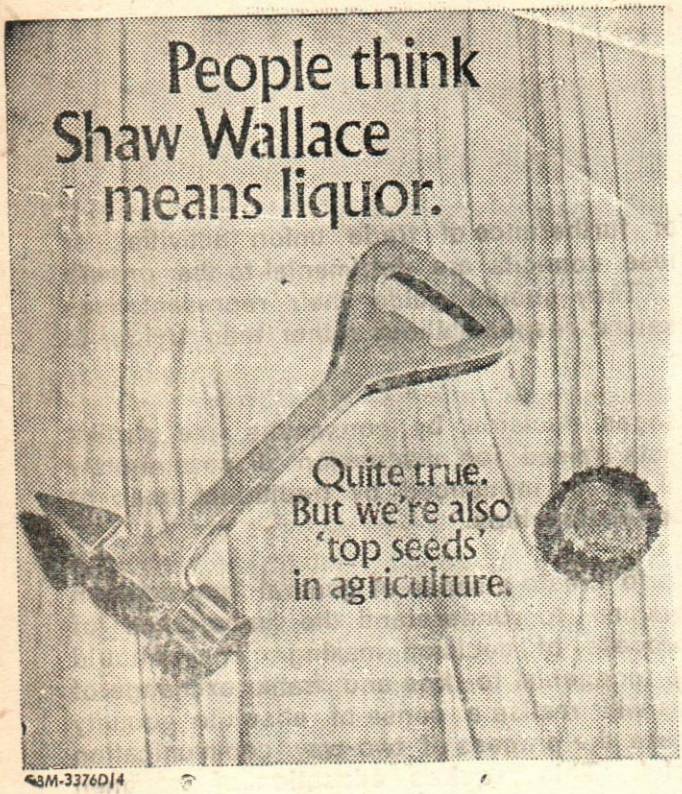
councils are not intended for furtherance of trade union activities or that the constitution of these councils are detrimental to the growth or survival of trade unions. They should guide their representatives in the various councils to assume responsibilities rather than trying to put spokes in the wheel.

3. Since the scheme envisages decision by consensus, the parties should consider the subjects raised for discussion dispassionately and with an open mind and not be influenced by traditional ideas of class conflicts or inter-union relationships.

4. Managements should help to create a sense of general appreciation and interest amongst workmen to understand the importance of their participation in the process of decision making. They should also create an atmosphere congenial to free and frank exchange of views where representatives will realise a sense of absolute equality and mutual trust and thus make the process of two-way communication more effective and purposeful. This requires education of workmen in general and the representatives in the councils in particular on the need to accept new challenges in the changing times.

5. Even though individual grievances are kept outside the scope of the councils, adequate care should be taken by the managements to see that individual grievances are settled as expeditiousiy and amicably as possible through formal or informal grievance procedures and that the general atmosphere is not vitiated.

6. The workmen should be made aware of their responsibility in nominating or electing responsible and enlightened representatives to speak on their behalf and also to take bold decisions. □



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Workers' Participation : Rationale and Challenges

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Nation's quest for a new socio-economic order depends on the structure of the economy, its institutions and the role which different segments of society play as prime movers of the economic apparatus. The present mood in the country provides a congenial climate for higher productivity through a better appreciation of the role and responsibilities which the working class can discharge in accomplishing this mighty task. Our beloved Prime Minister, while inaugurating the National Convention on Productivity on 10th November 1976 in New Delhi, reiterated that:

> "Economic growth is not a figure but the indicator of greater socio-economic justice. This emphasises the need for measures to increase productivity in an atmosphere of mutual trust and commitment. With this in view, we announced as one of the items of 20-Point Progrmme a scheme for workers' participation in industry at the shop-floor and plant level. I attach high importance to this experiment in industrial fraternity. It will help productivity. I hope it will deepen our democracy."

In the entire gamut of participative process a few questions which remain unresolved are:

(i) The objective of participation ?

(Ii) Participation for whom ?

(iii) Who has the final power to decide ?

(iv) Role of Trade Unions ?

For a better appreciation of these vexed questions, an attempt has been made in the following paragraphs to have a retrospect of the experiment carried out so far and the factors which need to be reconciled, with a view to having a clear strategy together with a module for participation.

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management, stepping up production, reducing wastage, and bringing about higher profits, promoting a more stable labour force and workers' safety, and other cognate matters.

The Joint Management Councils were established both in the public and private sectors, and they provided the first voluntary basis of participation which was quite different from the statutory set-up of Works Committees under the Industrial Disputes Act 1947 or safety and welfare measures provided under the Factories Act, 1948.

The Chinese aggression in 1962 posed a threat to the sovereignty of the nation when a state of Emergency was proclaimed in the country, and the Government of India decided to promote the establishment of "Emergency Production Committees' (EPC), both at the national and State levels on the pattern they were established in the U.K. during the Second World War. EPCs provided a basis for co-determination of production targets commensurate with increased efficiency, cost and quality of output, and for ensuring that the wheels of industry continued to move uninterrupted in the national interest.

Looking retrospectively, one might say that the experiment of these Joint Management Councils has not been very successful. Even in the Third Five-year Plan document, it was stated that important schemes, such as works committees and joint management councils (JMC) have made very limited progress. The entire approach followed so far needs a fresh look and a more dynamic strategy, as the nation can ill afford low productivity and apathetic, indifferent, and sometimes even hostile work-force."

Perceiving New Horizons

In its broadest sense, participation should be a matter of belief and attitudes shared on the concept of mutually-accepted values; it should lead to efficiency, quality of production, innovation and expansion; it should provide a viable answer to the question of "Sharing the Gains of Productivity", it must manifest itself in co-partnership, co-trusteeship and joint responsibility on the basis of equality; and finally it must ensure recognition of workers not merely in terms of "human needs"

but in terms of "human rights". The three major contributors to this process are :

(i) Government as the custodian of State Policy

(ii) Management as the trustee of resources which have to be effectively deployed, and

(iii) Workers as the producer of goods and services.

The broad philosophy of workers' participation is linked with the question whether it should be introduced by way of legislation or by agreement between employers and trade unions. In my view, whether a country opts for legislation or agreement is a matter of choice which shall have to be made in accordance with its environment, practice and traditions. What is, however, of consequence is the need to strike a balance between collective bargaining and legislation as possible instruments for introducing workers' participation in management. Here again, a cautionary approach will be necessary to ensure the following :

(a) The choice between the two methods shall have to be determined by the type of workers' participation envisaged; and

(b) The possibility of leaving the introduction of workers' participation to the initiative and agreement of the parties concerned, specially the organisations of employers and workers of approximately equal strength and with a long tradition of collective bargaining.

The success of participative management largely depends on three sets of factors. First, it is imperative that the broad socio-cultural environment is permissive enough to enable and reinforce the inception and growth of participative style of operation both within and outside the organisation. This aspect is being increasingly emphasised in view of organisations being viewed as an open system. Second, at the level of the organisations, there must develop institutionalised forums of participation supported by a network of regulatory norms. For obvious reasons, a crucial role is played in this regard, by factors like the existing organisational culture, the effectiveness of communication systems and the total industrial relations situation in the organisation. And third, the participating groups, namely, the "Managers" and the "Workers" adopt

the requisite value orientation and behaviour patterns to lend functional realism to the concept of participation. It would be appreciated that even when the environmental and organisational pre-requisites are met, in reality it is the group of people and their latent and overt behaviour that determines the quality and consequence of interaction in the participative forums.

Challenging the Challenges

It is often argreed that if management has the final power then workers cannot be said to be participating in management however strong the consultative machinery may be, and however attentive the employer may be to the workers' views. On the other hand, it can be argued that a sharp line cannot be drawn between the rights of consultation and those of participation except as a matter of dialectics. Decision-making power cannot be absolute. Some considerations which need critical examination may be :

(i) Workers' participation cannot be viewed in isolation of the historical, economic, social and cultural conditions of the country.

(ii) In a pluralistic society, any legislation introducing some form of workers' participation shall have to be the outcome of the interplay between forces exercising political power or influence. In this context, any reference of the term "political" will need a limited interpretation to refer to "any action aimed at shaping or changing the society in which we live."

(iii) The general philosophy of workers' participation cannot be dissociated from its underlying motives and justification. There are two schools of thought which favour the principle of associating workers with the decision-making process :

(a) Those who advocate it as a fountain source of decision-making power, i. e. the right of ownership; they strongly hold that participative process cannot take place in the realm of property rights or a share in the ownership. And yet, several countries have introduced profit-sharing through worker share, taking due note of the Danish idea of "economic democracy" to be supplemented by

"industrial democracy" by providing workers' representation on management boards. Linkings workers' co-decision rights with ownership has been the basic approach in countries which have public sector undertakings or those which have been nationalised or have socialised the means of production .

(b) Those who postulate that workers are entitled to have a say in the management of their enterprises irrespective of ownership and simply because they work there, believe that workers' participation is based on the fundamental concept of justice, and that the ordinary worker invests his labour and ties his destiny to the place of work. For this reason, he has a legitimate right to have a share influencing various aspects of organisation policy.

Role of Trade Unions

Recognising that Trade Unions constitute an important segment of social control system and have a major role to play in introducing workers' participation in management, they have to strengthen the process of collective bargaining at the enterprise level. However, in considering collective bargaining as a process of workers' participation, two things have to be clearly interpreted :

(i) there should be a visible trend towards enterprise level bargaining; and

(ii) it should lead to the enlargement of the scope of negotiable issues.

For example, under the collective bargaining system in Hungary, workers have the right to even veto management decisions.

As to the second factor, i. e. widening the range of negotiable issues, developments in many countries have shown that the philosophy and the scope of collective bargaining is no longer limited to the determination of wages and working conditions. More and more matters which, in the past, were considered as the management preserve are being included within the scope of collective bargaining. In Sweden, there is a move to extend the scope of collective bargaining to personnel policy matters. Similarly, in the USA, collective bargaining agreements cover such things as the establishment of new plants, automation, and changes in

the work process. The most recent example is that of the FIAT agreement in Italy, whereby workers have succeeded in getting a clause included in the agreement binding the management to invest money in the South of Italy. Undoubtedly, the dimensions of the modern form of workers' participation in management have gone beyond the empirical approach and a subjective thesis of participation.

An important factor which comes in the way of the trade unions to pursue whole-heartedly the theme of workers' participation is their divided house. It is startling to know that in India we have over 18,000 unions and obviously their strength and capacity both in terms of collective bargaining and participative character suffers with inadequacies. What is, therefore, of major significance on the part of the trade unions is to make a serious effort to have the house of trade unions put in order.

In the ultimate analysis, the success of workers' participation in mangement depends on the attitude and the structure of power and values obtaining within the trade unions. Until such time the rank and file of the working class feels enthusiastic about the environment and the conditions which prevail, leading to greater loyalty on the part of workers, any measure whether legal or outside either at the instance of the State or with the concurrence of the trade unions, may not bring about the success of the experiments.

Higher Productivity and Participation

The approach to Workers' participation in Management, when viewed from the productivity angle, must reflect in a keener sense of belonging on the part of the workers for the overall growth of the enterprise, and for registering higher productivity and higher profits commensurate with cost and quality. Planning process even during the Second Five-Year Plan had recognised that "increased association of labour with management was necessary for promoting increased productivity, giving employees a better understanding of their role in the working of industry and in the process of production, and satisfying the workers' urge for self-expression, thus leading to industrial peace and better industrial relations through increased cooperation between management and iabour.",

Workers' participation in the context of higher productivity has to resolve several factors. It should dispel the fear of displacement of labour resultant of mechanisation and automation, since in a poor country with abundant labour force, increased productivity must provide greater volume of employment, and simultaneously bring about innovations in technology suited to local needs.

Productivity approach to participation must manifest in joint management and not segmented approach to management problems. It should lead to the creation of productivity consciousness and appropriate motivation among all levels of workers so that individuals and groups are able to contribute their utmost in the process of production. The participative process should further provide effective channels of communication at various levels of enterprise, the provision of adequate information data and in particular making it available to workers' representatives on various consultative committees.

Training of diverse kinds for both workers as well as managers should constitute a major theme of participative process. This should have a three-dimensional approach : (a) to improve technical and professional knowledge, (b) to provide an appreciation of national goals, and (c) to enable workers' representatives to serve effectively on various consultative forums. Such efforts alone will bring about democratisation of management process and ensure appropriate motivation for raising the levels of productivity.

Module for Participation

Under Indian conditions, the success of any scheme of workers' participation in management, whatever formal shape it might take, would necessarily depend on :

(a) The presence of a reasonable degree of mutual understanding and goodwill on both sides;

(b) The existence of strong and representative trade unions;

(c) The inclusion of major subjects such as wages within the scope of the Joint Consultative machinery;

(d) Sound business practices, including sufficient degree of autonomy; and

(e) Adequate training of worker's representatives.

Within the framework of the scheme formulated by the Government of India, a 3–tier approach for a meaningful process of workers' participation in management may be more effective :

(i) Formation of shop-floor committees to look into the production problems and determination of production targets. Such committees should consist of shop-floor workers who should be able to determine jointly with management representatives the production norms and production targets.

(ii) Formulation of departmental committees to coordinate the achievement of production targets set out by the shopfloor committees. They should be further responsible for removing the bottlenecks and providing facilities in regard to material utilisation, manpower and equipment effectiveness to achieve the targeted production.

(iii) The formation of plant or unit level committees which should be seized with problems of production, cost and quality of products as weil as other matters concerning the efficiency, welfare and profitability of the enterprise.

Machinery for Follow-up and Implementation

The follow-up and implementation mechanism would greatly depend upon the cooperation and mutual acceptance of obligations as well as a constant endeavour to bring about improvements in the performance of the enterprises as a whole. It would also depend on the philosophy and the manner in which the participative process would evolve at the enterprise level. Some broad requirements for this are :

(a) Commonality of interest;

(b) Determination of long-term and short-term goals; and

(c) Massive programme of training of workers, supervisors as well as managerial personnel for preparing them for effective participation at the enterprise level.

A Leap in the Right Direction

One of the great advantages which this experiment could bring about would be that undertakings both in the public and private sectors should develop their own "public image", and demonstrate that they do not treat the body of workers as doers of jobs and takers of orders alone, but that they accord to the workers the status of partners in the modern culture of growing industrialisation. In the ultimate analysis, it could become a significant step towards the emancipation of labour from its only role as an agent of production to the new status of organiser of production and decision-making.

The question of workers' participation in Management is, therefore, primarily a question of attitude-orientation. Favourable attitudes can be developed only by the sincerity of purpose and depth of conviction, It is not at all a matter of paying lip sympathy to the cause of lofty ideas or a political fad; it is, in fact, a major plank of discovering practical and mutually advantageous ways and means of developing an understanding between management and labour. It is also a matter of enlightened self-interest, recognising that, small but positive beginnings born out of sincerity of purpose can see us through the "crisis of confidence" which sometimes afflicts the industrial life in the country. □

Workers' Participation in Decision-Making : Research and Hypotheses

Mirza S. Saiyadain*

The term participation is variously understood by the involved parties. For management, it is a joint consultation prior to decision-making; for workers, it means codetermination, while for Government it is an association of labour with management without the final authority or responsibility in decision-making (Mhetras, 1966). A rather interesting description of participation is provided by Strauss (1963). According to him, participation is generally conceived by a way of reducing power differences and, therefore, equality is stressed. Participation as a means to reduce power, equality, however, seems difficult to accept because of the obvious difference in formal power positions between a labourer and the director.

The more precise conceptual properties of participatoin are hardly clear, although at least the following elements seem involved (Golembiewski, 1965) :

1. The amount of verbal interaction between a supervisor and subordinate.

2. The degree to which a supervisor performs his role in a group-centred way.

3. The degree to which a supervisor is active in making decisions and setting goals to his work units.

Despite the variations in interpretations, there seems a consensus that participation means sharing in an appropriate manner the decision-making power with the lower ranks of the organisation, the general assumption being that by using such a process the workers would be able to contribute to the overall effectiveness of organisation.

Mhetras (1966) has suggested five levels of participation which range on a scale from minimum to maximum paticipation in decision-making. Since these levels of participation can give us an indication of the extent

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of codetermination in an organisation, they deserve attention. We have tried briefly to highlight these levels below; they ranked from minimum to maximum degree of participation:

(a) *Informative participation:* Refers to only information-sharing concerning balance sheet, production, economic condition of the plant, etc. Here the workers have no right of close scrutiny of the information provided.

(b) *Consultative participation:* Here the council is consulted on such matters as welfare programmes, and methods of work and safety. However the final decision is always that of management, the council only working as an advisory body.

(c) *Associative participation:* Here the council's role is not purely advisory unlike consultative participation. The management is under moral obligation to accept and implement the unanimous decision of the council.

(d) *Administrative participation :* A decision already taken comes to the council for choosing an alternative to implement. Here the degree of sharing authority and responsibility is definitely more than the others.

(e) *Decisive participation :* Decisions are taken jointly on matters relating to production, welfare etc.

The level up to which a company will allow the council to participate will depend on the philosophy followed by the company on one hand, and the personality of the council on the other hand.

Participation has been called as one of the most prominent constituents in the group dynamics literature (Schnieder, 1955). Several empirical findings, conducted in laboratory and otherwise show that significant changes in human behaviour can be brought about rapidly only if the persons who are expected to change participate in deciding what the change shall be and how it shall be made (Simon, 1955).

Initial Research in Participation

Of the earliest studies in this area, two (Lewin, 1947; Coch & French,

(1947) need special mention. These studies have successfully shown that changes in attitude and behaviour can more effectively be brought about through participation rather than by lecture or individual instructions.

Lewin and his associates (1947) conducted several studies to see the effect of participation on change in food habits. These studies lasted for a period of four years. In the first study, one group of housewives was given attractive and interesting lecture on the vitamin and mineral value of three meats — beef hearts, sweet breads and kidneys. With the help of charts, explanations were given, health and economic aspects were emphasised and mimeographed recipes were provided. The other group was induced to participate in the programme of change without high pressure salesmanship. A follow-up study showed that only 3 percent of the women who have gone through lecture method served one of the three meats, whereas of those that went through group discussion, 32 percent served one or the other meats to their families. Subsequent follow-up showed similar trend.

Coch & French's (1947) study was centred around women tailors working in Harwood Co. producing pajamas. The factory was facing problems of reduced production after transfer of its employees. An experiment was designed in which there were three degrees of participation : (a) no participation by employees in planning the changes, though an explanation was provided, (b) participation through representation of the workers in designing the changes to be made, (c) total participation by all members of the group.

The results of the three conditions are summarised in the following table.

Estimated changes in output *vis-a-vis* degree of participation

Conditions	*Production Units per hour at five day interval after minor changes*					
	5	*10*	*15*	*20*	*25*	*30*
Total Participation	64	65	75	71	71	72
Representation Participation	50	53	60	68	64	66
No Participation	45	53	55	51	49	55

Source : Golombiewski (1965)

Without going into too much of details, it can be stated that resistance to change could be overcome by getting the people involved in the process of change.

A subsequent and relatively-recent study by Marrow, Bowers, and Seashore (1967) using same company Coch & French (1947) showed very revealing results. The study was carried out for two years 1962-64, whereby the Harwood's management model (Participative) was used to bring about changes in Weldon (a company Harwood bought) which was run on a dictative fashion. The results are summarised in the table below :

Indication of Organisations' Efficiency in Production

Area of performance	*Year*	*Weldon*	*Harwood*
1. Return on capital invested	1962	−15%	+17%
	1964	+17%	+21%
2. Make up pay	1962	12%	2%
	1964	4%	2%
3. Production of efficiency	1962	−11%	6%
	1964	+4%	16%
4. Earnings above minimum (Piece rate and other incentives, employees only)	1962	none	17%
	1964	16%	22%
5. Operator turnover rates (monthly basis)	1962	10%	3-4%
	1964	4%	3-4%
6. Absence from work (daily rate production employee only)	1962	6%	3%
	1964	3%	3%

Source : Marrow, Bowers & Seashore (1967)

In addition, the results of the attitude survey suggest stable but moderate changes, more positive view of the company, an awareness of the reduction in disruptive job changes; more satisfaction with compensation; more willingness to stay in Weldon; and a general positive attitude.

Although there is ample evidence to suggest that participation does bring about a change in attitude and behaviour, the persistance of change does not seem to show the same promise. A longitudinal comparison by Sinha (1974) pointed out a reversal in the participative management over a three-year period. The study showed definite increase in input (physical, personnel facility and personnel competence)

intervening (e.g. supportive relationship, goal setting, decision-making motivation) and output (quality and satisfaction) variables in the employees of a hospital after the introduction of participative decision-making. However, a subsequent measure on the same variables after a period of 3 years revealed significant reversal in intervening and output variables, suggesting thereby a curvilinear relationship between participation and measures of its effectiveness.

The studies discussed in some detail above and several other studies (see for example Radke & Klisurich, 1947; Morse and Reiner, 1956; Lawrence, 1969) suggest substantial degree of support to the general effectiveness of participation.

Experiences of Some Nations in Workers' Participation

Despite such convincing evidence, the application of participation hypothesis has run into some problems in the area of workers' participation in management. It seems that in specific situations such as this, lot many intervening variables operate and thus inhibit a clear-cut prediction on the effectiveness in participation. Such variables include both structural as well as personality variables. To fully comprehend this point we need to look at multinational experiences of worker's participation and its effectiveness.

Yogoslavia :* Yogoslavia provides the most classic example of workers' participation in management. Traditionally known as self-government in industrial undertakings, it was formally instituted in February 1922 when the coalition government passed a legislation conferring on workers the right to participate in the management of enterprise. The movement, however, could not effectively take off because of political problems, major of them was Nazi occupation during Second World War. However, through the "Basic Law" of 1950, the Government recognised the principle of workers' management. This law stipulated two kinds of agencies for cooperation; the workers' council (whose job was to decide and define the general policy of the undertaking with regard to economic and social matters) and the management Council (which

*For detailed discussion on cross-national experiences, see ILO series on Cooperation in Industry

was required to ensure the application of policies thus generated). Members of the two councils were to be elected by a majority vote.

Despite repeated government's acts and decrees, the Yugoslav experiment has not been all that successful. A comprehensive study by Kalaja (1965) supports this conclusion. He used, observations, semi-structured interviews combined with the content analysis of personal files and merits of meetings and questionnaire responses on a sample of two factories in Yugoslavia. His findings suggest that the major function of workers' councils in both factories was informative and educational. The workers' councils "participated actively when personnel questions were discussed, their participation fell short of the professed definition of workers' management when technological developments as well as financial and marketing issues were discussed" (p.77)

Sweden : Joint enterprise council, the Swedish name for workers' participation was formalised in the year 1938 under an agreement between the Employers' Federation and the Confederation of Swedish Labour Unions. This agreement is also known as *Salts jobaden Agreement.* According to the terms, the following were agreed : (a) to achieve the highest-possible production; (b) to ensure that the technical and financial information is made available to workers; (c) to encourage technical training within the firm; (d) to maintain security and safe woking conditions of employment and (e) to maintain good relations between the management and the employees (Vallstand, 1961).

Swedish experience, to some extent, has been a story of success largely because of the efforts of trade unions and comprehensive training schemes. On the other hand, equal credit should be given to employers who have shared company information with the workers. However, the performance of joint enterprise councils has not been uniform across undertakings. Two reasons seem to have contributed to this setback; (a) suspicion of the workers to the information provided by management, and (b) lack of dissemination of the results of participation across to all employees (Das, 1964).

Germany : Another well-documented attempt towards workers' participation has been codetermination in Germany. The history of workers'

participation dates back to 1840's when modern industrialisation led to unemployment among handicraftsmen. However, it was not until 1916 when government enacted the Auxiliary Service Act and legally recognised workers' right to participate in making of manpower and welfare policies. Four years later, Works Council Act was formulated which later became "Codetermination Law". Under the Act, the workers' councils were required (a) to cooperate with the employer in promoting efficiency of production, (b) to cooperate in the introduction of new labour-saving methods, (c) to promote peace, (d) to defend the workers' right of association, and (e) to reconcile employees' grievances (Das, 1964).

Although both the trade unions and the government were able, despite resistance from employers, to achieve the right of codetermination, in actual practice it ran into major difficulties. Appointment of labour directors on the board was looked upon with suspicion by workers. They were concerned that these directors may overlook workers' interest in order to safeguard the interest of the enterprise. This was further accentuated by the fact that these people drew large salaries. On the other hand, employers were not very favourable to the idea.

Suhuchman (1957) concludes that despite codetermination the ultimate responsibility and decision remained in the hands of management. There could be three reasons : (1) the advantage of electing an eleventh man on the supervisory board—a decisive vote on an otherwise 50-50 representation by workers and employers; (2) the failure to apply the Codetermination Law to holding companies; and (3) day-to-day management resting in the hands of management board where labour had minority representation.

Norway : Industrial democracy in Norway took a formal shape as early as 1935 when TUC and Confederation of employers signed the main agreement. It clearly recognised that (a) the industrial democracy should be considered in the context of existing Norwegian industrial conditions, (b) to bring Norwegian industrial life into closer accord with the democratic social life, (c) create conditions for individual commitment, leading to increased productivity and efficiency (Emery & Thorsrud, 1969).

Results of the interviews conducted by Thorsrud and Emery (1966) of

30 persons who had personal experiences of these mixed boards revealed the following : (a) little evidence of active communication and feedback between the electors and their representatives which in itself renders suspect the effectiveness of representation, (b) some interviewees mentioned of their having to take a company's view particularly inmatters of production; and (c) failures of representatives to exercise control over managers or push welfare demands in the face of either company requirements or they were ill-equipped to judge.

On attitude level, however, a survey by Holters (1965) indicated that a majority of lower grade industrial workers felt that they could cope up with and wanted more responsibility in their daily work.

Great Britain : Joint Consultation, the British name of workers' participation, owes larger share of its gratitude to the Whitley Committee which provided a recognised means of consultation between the management and employees. The committee, in its recommendations, suggested to (a) give employees wide interest in and greater responsibility for, the conditions in which their work is performed, (b) prevent friction and misunderstanding, and (c) enforce the regulations contained in collective agreements drawn up by district and national authorities. Matters relating to wages and hours of work were excluded from its purview.

The joint consultation, though, has contributed a sense of cooperation and mutual responsibility, it cannot be called a success. Except in times of crisis, the employees were generally disinterested in or apathetic to the joint consultative bodies. Apart from personal grievances, the individuals found it difficult to perceive how to use it. The set-up was regarded as an important possession but its existance was taken largely as goodwill or a mechanism, in case things go wrong (Jaques, 1951). One important barrier to the success of joint consultation in production and efficiency has been the failure of the new conceptions at the centre to permeate down to the shop-floor level (Kirkaldy, 1953).

India : Indian version of workers' participation can be dated as far back as 1920 when the workers and employers in Ahmedabad Textile Industry agreed to settle disputes by mutual discussion. However, it was not untill 1947 when it achieved some acceptance. In this year,

Government of India enacted the Industrial Disputes Act, Under the provision of the Act, works committees were appointed to "remove cause of friction between the employer and the workmen in the day-to-day working of the establishment to promote measures of securing amity and good relations between them". Subsequently Joint Management Council (JMC) was launched by Tripartite Indian Labour Conference in 1957, with the purpose of improving working conditions, productivity, communication, general administration of laws and collective agreement, encouraging suggestions from workers and creating among them a sense of participation" (Sheth, 1972)

Indian experiment in workers' participation has been far from satisfactory. In a study covering six industrial units (three private and three public sector undertakings) Sheth (1972) collected data through interviews with various cadres of management, labour and union. He concluded that the functoning of JMC had not been entirely satisfactory. Of the several reasons for failure, Sheth (1972) highlighted the following:

(a) If it is imposed from above or accepted after hard persuasion, it may not be effective.

(b) It has been found to be effective if it has been perceived to meet the needs of the concerned people at the level of organisation.

(c) It has not been clearly demarcated from other consultative committees like workers' committee and production committee, etc.

In an earlier study of five companies, Mhetras (1966) found management hesitant to share with workers their right to manage and workers reluctant to take the implied responsibility of participating in managerial action. He concluded that in addition to the attitude and outlook of concerned parties, lack of clear-cut distinction from other consultative bodies endangered the effectiveness of JMC, a finding subsequen tly supported by Sheth (1972).

Though there is very little attempt in these studies to make a comparative evaluation of success or failure across nations, there is one study available that does just the same (Sturmthal, 1964). This comparative study of workers' councils in four countries,—France, Germany, Poland and Yugoslavia(two on each side of iron curtain)—deals with the attempt to establish decentralised market economy on the basis of socialistic

property arrangement and the status of unions. Sturmthal found that as far as countries behind iron curtain are concerned the political system makes real self-government difficult. While in France and Germany the participation was limited only to the matters concerning personnel rather than production or finance, Sturmthal concludes that a sustained experiment in the system of workers' self-government does not yet exist.

Effectiveness of Workers' Participation

The following factors seem to account for the relative failure of industrial democracy across the world. The listing, however, does not exhaust all the possibilities :

1. Workers' participation has suffered largely from the hands of employers. They have felt and probably still feel that such a move will take away from them their right to manage. To some extent, this is supported by a large scale government interference in using decrees, enacting laws, and formulating legislative bodies. Voluntary participation by employers has been a rare thing except maybe in case of Sweden.

2. Because of this attitude of the employers, information-sharing has not been liberal. Workers' representatives have often not been informed regarding manpower and production schedules. This has created an attitude of indifference and possibly hostility among the representatives.

3. Most studies have pointed out the role conflict that most of the representatives have faced in mixed boards and committees. The conflicts have arisen because very often representatives are forced to take company view on some matters that contrasted with the wider interest of workers. This has not only created conflict of interest among these representatives but has very often generated a crisis of confidence among electors.

4. Unlike the stated aims of participation, in most cases joint boards, councils, etc., have ended up dealing with personnel and welfare matters rather than matters concerning production and efficiency. This, to a large extent, has been responsible for the dissatisfaction

of the employers whose concerns rest relatively more with production and efficiency.

5. In some cases, studies have found very little evidence of active communication and feedback between the electors and their representation. Part of the blame can be put on the representatives themselves who have found themselves ill-equipped to judge as to how and what should be communicated. Partly multiplicity of union has caused such a problem. In Indian context, this has done considerable damage to JMC.

6. Finally, it has been found, at least in Scandinavian countries, that ineffectiveness of particition has shown a positive correlation with the level at which it is utilised. As reported by Holter (1965), industrial experiments in U. S., U. K. and India (in engineering, coal-mining and textile) have shown that the democratic sharing of power at lower grades of industrial workers can be stable and effective because it furthers the ends of both employees and government.

Workers' Participation : Intervening Variables

In our eagerness to apply any or all of the afore-mentioned factors, to judge the success or failure of the experiment in industrial democracy, let us not forget that each country and each organisation may have a unique culture of its own (Jacques, 1951). For example, Whyte (1959) suggests that self-determination, so much valued by Americans, is not shared by workers in South America, Same way Germans are groups only if they are led by a leader, while informal group is a potentiality in U. S. (Weiss, 1956). Thus there seems no reason to expect that the consequences of participation will be universal. Although cross-cultural work is scarce, evidence from more theoretical studies supports the point (Maier & Hoffman, 1962).

Vast amount of literature on participation is available; and numerous studies are underway. In fact, as Shaw (1961) notes, "we are presently in the midst of something of a renaissance of research on the effect or participation". However, most of the studies have tried to determine the influence of workers' participation on performance in

a one to one fashion. The significance of intervening conditions is not that thoroughly explored, though some studies have suggested the nature of necessary specification for participation.

Bennett (1955) found support for two hypotheses, i. e., (1) *the process of decision* to perform a specific action raises the probability that the decisions will be performed, and (2) *the high degree of consensus* on a decision raises the probability that the necessary action will be forthcoming. The results imply that they need not be due to the technique of group decision. Bennett explains, "the factions of decisions and perceived group agreement regarding the direction of such decisions alone have been shown to be as effective in increasing the probability of execution of an action as group decision itself" (p. 271). In another study Haublin, Miller and Wiggins (1961) found that the perceived competence of the discussion leader in group decision-making, makes a difference in the morale of the group.

In a very extensive study of the entire Yugoslav experiment, Brockmeyer (1968) found the following three elements necessary for the survival of workers' self-government. These are: (1) expertness, (2) motivation for the problems handled by the council, and (3) growth of a small sub-group of competent and responsible people. The expertness and knowledge hypotheses subsequently found significant support in Mulder (1971) and Mulder and Wilke (1970) studies which found expertness as necessary prerequisites for a good participation. In a rather extensive survey of literature, Lowin (1968) first proposed a model of participative decision-making, and subsequently showed sufficient support for his model. Some of the parameters of the effectiveness of participative decision-making are highlighted below :

1. The degree of effectiveness varies directly with the degree with which the participation meets the motives of the participants.
2. The greater the clarity of goal the higher the effectiveness, provided conformity to goals is a stronger motive among the participants.
3. Settlement of relatively-difficult issues leads to greater effectiveness.
4. The higher the visibility of the activity of participative decision-making, the more the effectiveness.

5. Effectiveness varies inversely with the urgency of the decisions.
6. Effectiveness varies directly with the number of administrative levels subsumed by the programme.
7. Finally, the amount of useful information influences the effectiveness of the participative decision-making. The more useful the information, higher the effectiveness.

In a rather recent study on Indian sample, Dadi (1974) provided support for two hypotheses. The results suggest that the level of economic development negatively correlates with workforce participation rate, and age shows a curvilinear relationship with participation.

These are just a few examples of the specifics in participation. These studies do suggest one thing. They point out that without necessary preconditions for participation, there may exist the danger of false participation. Secondly, people may engage in matters that are either completely unimportant or above their level of expertness. Both these dangers are extremely critical. The first may lead people to think that the fact that they are participating is sufficient to bring about satisfaction, commitment and so forth. The second may lead to the feeling that since they really are not contributing anything it may be demotivating and possibly lead to "destructive" activities. In order to avoid these dangers, the search for more intervening variables must go on. □

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Issues Involved in Workers' Participation in Industry

S. P. Lavakare*

The idea of workers' participation in the management of industrial and commercial enterprises, both in the public and private sector, is neither new nor novel. The problem, however, has always been about its scope, content and objective. Several attempts have been made to experiment with various forms of workers' participation through legislation and exhortation. It is an accepted fact that these attempts have not achieved desired results. The need to evolve some kind of joint machinery not only to resolve differences but also to ensure cooperation of workers in establishing industrial democracy still exists.

The Government's interest in reviving the scheme of workers' participation is mainly aimed at increasing production and productivity. The 20-Point Economic Programme of the Prime Minister rightly emphasises the urgency for evolving a scheme for workers' participation in management. In pursuance of the 20-Point Economic Programme, the Government announced, on 30th October 1975, a non-statutory and flexible scheme for workers' participation in management at the shop-floor and plant level.

Flexibility in the Scheme

The scheme avoids any strait-jacket approach to the problem. It has built-in flexibility to accommodate all types of variations that may be there in different industries, units and areas. The flexibility has been deliberately built in to ensure its proper implementation. But the flexible dimensions both in concept, form and in operating procedures have obviously left a room for a great deal of confusion in the absence of clear guidelines or directives. Does participation mean formal or informal consultation with workers or just sharing information with workers ? Does it mean giving advice or sharing the exclusive and traditional prerogatives of decision-making by management ? Who should nominate the representatives of management and workers, and how ? At what levels of organisation should participation take place ? An answer to each of these questions would only contribute to the clarity of thinking with which the scheme can be implemented.

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Design of the Scheme

While there appears to be a general consensus of opinions favouring workers' participation in management, there have so far been no clear and agreed views on the scope and coverage of such participation and the levels at which it would be most fruitful in bringing about desired results. Besides, the initiative for implementing the scheme is left to management in industry. The question arises, if management and workers both have common stake in production and productivity, why is it that the unions or workers cannot take initiative in implementing the scheme ? What is the need for appointing the Chairman of the Council from management side, when the success of the scheme depends on the cooperation from both parties ? Besides, the Chairmanship can be by rotation, with mutual consent. What kind of motivation is there for management to share their exclusive prerogative of decision-making with their workers ? Are they prepared for it ?

Involvement and Motivation for Workers

It is necessary here to stress that the mechanism of participation has been evolved in a manner, which makes the worker feel that he is not a mute instrument but a conscious participant in the society's appratus of production. In the absence of mental or emotional involvement, the work becomes a mechanical process and consequently the worker feels alienated. But it is pertinent here to raise the question of readiness of worker to participate in management. Is he capable of this task ? One has to look closely at the quality of the workers on whom the success of the scheme depends. It entails spending considerable money in training and developing workers in right attitude and attributes to cultivate participative spirit. But that is not enough. Is he capable of this task ? Is there any motivation for him to participate in management ? If the emphasis of the scheme is on increasing production and productivity without ensuring any gains for him, he would like to know why he should participate. In developed countries, too, the apathy of the workers to such similar scheme was initially a hindrance to its success. Here we have to take note of the fact that in our country, the mood of the workers is slowly changing, but how far it would last in the absence of any incentive is not yet known.

It is generally felt that the scheme for workers' participation in industry

at shop-floor and plant level is bound to usher in a new era in the history of industrial relations and production processes. Moreover, now that the workers have been given due recognition, the participation will end crisis of personality, which the modern mode of production has generated, and also help in bridging the gap between the managers and workers which was long overdue.

The emphasis of the scheme is on a common stake in production and productivity, work-discipline, improvement in working conditions, safety norms, the provision of all of which should be considered as an aspect of productivity than as an underserved perks grudgingly granted. In short, the scheme suggests nothing more revolutionary than what any enlightened management would promote for its own advantage and what any worker who wished to improve his prospects in a firm would welcome.

Need for Consensus

The cornerstone of the scheme is consensus. The choice of workers' representatives for the Shop and Joint Councils is to be on the basis of consensus, presumably because elections tend to stir up inter-union rivalries. But the assumption that the process of arriving at a consensus will somehow be free from controversy is far removed from reality. So far, no attempts have been made to ensure the recognition of one trade union alone for the purpose of nomination of workers' representatives, in the absence of which, a good mechanism for collective bargaining and participative management cannot be evolved. Consensus is also the basis of decisions taken in the Councils. Here again, controversies arising out of attitudinal barriers between the manament and workers cannot be wished away. At the same time, any other pocedure can kill the idea by vote manipulation and accrimoneous wrangles. How far workers' representatives would enjoy freedom of openly disagreeing with management opinion on any issue in the traditional hierarchical organisational structure ? What kind of protection is assured to workers' representatives for freedom of expression in thought and action ?

The insistence on consensus may pose some difficulties. Consensus is possible only in terms of shared perspective and a code of behaviour

agreed upon by all concerned. We have not yet reached that stage in our country. It remains to be seen how we would succeed in creating conditions in which consensus becomes a practical proposition.

The functions allotted to the Councils cover all aspects of production productivity, discipline and welfare. Important though they are, are they capable of persuading workers to take a sustained interest in them ?

Other fundamental questions which have to be resolved if the performance of Joint Councils is to succeed, where Works Committees and Joint Management Councils failed, are of fair wages and equitable sharing of the gains of higher production and productivity. As mentioned earlier, it may be too much to expect workers to be drawn into any participatton, if they are not ensured their due share in the gains accruing from their efforts.

Role of Parties Involved in Implementation of Scheme

It further leads us to ask ourselves, what is the role of various parties that are involved in implementing the scheme in industry? What is the role of the state government in making the scheme successful at state level ? What is the role of professional bodies such as Chambers of Commerce and Employers' Federations in implementing the scheme ? What role trade unions at national level should play in making the scheme successful ? What is the role of the management institutes in equipping the managers to participate effectively ? What is the role of National Apex Body, besides collecting data on the implementation of the scheme in various industries ? At this stage, it is very difficult to delineate the role of each party that is involved in implementing the scheme, but that does not preclude us from becoming aware of the problems and difficulties associated with it.

Need for Review Machinery

Before going into the areas of attitudinal changes, it is essential to stress the need for setting up some kind of machinery which would not only monitor but also review the success of the scheme wherever it is implemented. It should objectively aim at not only finding faults in the

participative machinery, but should also highlight the positive aspects of the machinery on the basis of which broad guidelines can be derived not only for avoiding the repetition of the mistakes but also effecting improvements in future.

Training for Participation

To enable workers to contribute more effectively in management, it is necessary that they are not only well-informed but also that they have some expertise and knowledge of the issues that would come up for discussions. It might be necessary to train both management and workers in areas of inter-personal relationship, inter-group communication and general matters such as conducting meetings, presenting information, etc. But the question is, who should take the responsibility for training workers? Should they be trained on company's time or half on company's time and half on workers' time ? Should they be trained by senior executives of the company or by the external training Institutes ?

Managements' Attitude

As for the managers, there is a vital need for attitudinal changes so that they regard the workers' participation as a positive step in bringing about an improvement in an organisation. Management of a unit has always been considered as an inalienable right of the executives, specially the owners. Workers' participation definitely dilutes this right when it is fully implemented. Is the management prepared for it ? Similarly, from the workers' point of view, it could be argued, why should the workers accept the responsibilty of taking vital decisions that could increase efficiency and decrease costs if they are not to receive any benefit out of it ? Both the management and the workers cannot afford to view the problem so narrowly. The problem, therefore, boils down to the covering of distance from the present position of the management and the workers to the new position of full acceptance of social responsibility involved in participative process.

There has to be an awareness of the significance of the contribution towards better management of enterprise by knowledgeable workers, experienced employees and young executives as the work processes are

becoming more complex. Adequate wages and pay, other elements of remuneration, and benefits are not enough to involve workmen in the creative process of the organisation. Besides getting their livelihood, workers derive other saitisfaction from employment, like, association with workers, the sense of belonging to their respective professions, pride in their contribution to the life of the community and towards social and management goals. It is not possible to expect such changes overnight, but efforts have to be made in the desirable direction.

Trade Unions' Attitude

Just as employers have little to lose and much to gain by adopting a positive and forward-looking attitude, it is up to the trade unions to respond by not looking upon the scheme as giving them a newly-won right, but an acceptance of a new responsibility which would lead them to effective participation in management. The strong support of Trade Unions would further facilitate the process of participative management. So long as collective bargaining is within the purview of the trade union, there is no basis for apprehension of losing grip over workers.

The unions should not look askance at the scheme and perceive it as another control device that erodes into their power. It is difficult to see how the scheme can ever become a successful reality without the unions becoming an integral part of it. Ways and means have to be found towards a more authentic involvement of the unions in the participative process. The distrust underlying the relations between the management and unions, if there is any, has to be resolved through programmes of union-management interaction which would be task-centred at various organisational levels.

Participation at Middle-Management Level

Lastly, the success of participative management, especially workers' participation in management, would depend on the degree of autonomy and participation that the managers and supervisors themselves enjoy. One who does not receive participation may find it difficult to initiate it for his subordinates. While the focus of participative style is on

workers' participation, the managers at the junior and middle level suffer from a sense of alienation as they are ignored in formulating major policies, although the responsibility of implementing these polcies are squarely placed on them. In view of this, it is difficult to see how they would look upon the scheme of workers' participation when they themselves are deprived of it. Attempts have to be made whereby they would be effectively involved not only in the implementation of the scheme but also in the decision-making processes of the organisation.

The New Scheme vis-a-vis Earlier Attempts

It may be rather too early to say in what way this new scheme differs from the earlier attempts of setting up the works Committee and Joint Management Councils. However, that should not preclude us from thinking about it. Firstly, the title of the scheme 'Participation of Workers in Management' itself is so clear unlike previous titles, that it is hoped that it would encourage workers rather than annoy them. Secondly, the scheme is not made statutory and inflexible unlike the Works Committee. Thirdly, the limited scope of the scheme for associating workers with production process only, may win it better support of both workers and employers as improvement in production is a matter of immediate concern to both of them. However, the demarcation of areas for participation would not solve the problem of bringing various other non-related issues in the joint forums. That problem would be there initially and through proper exposure, experience and education, it would gradually disappear. But to start with, it has to be accepted and should not be considered as distortion of the main objectives of the scheme. Lastly, the flexibility of the scheme permits variations suiting local conditions.

However, even a cursory perusal of the guidelines of the scheme shows clearly that barring the provision of Joint Councils at two or more levels instead of at only one level, the newly-announced scheme adds nothing to what had been recommended 19 years ago, and in fact, takes away something significant from it. The new scheme mentions only production and productivity as the field of activity for the Joint Councils. The right to receive information on crucial matters like financial results, technology, administrative jurisdiction in several

matters of interest to workers, which were proposed to be given to the Councils under the earlier scheme, do not find any mention in the new scheme. Is it an improvement over the earlier schemes or a deliberate omission ?

Conclusion

Participative management is not a magic word that would help industry' resolve its inter-personal and inter-group problems. The workers' participation can yield only limited outcome initially. Yet we must first resolve our own ambivalence and confusion over the concept.

Some organisational groundwork is necessary. If the scheme is implemented mechanically or dogmatically, it would not motivate employees and create the consultative or participative culture. On the other hand, it can be used as highly-realistic device to achieve the twin objectives of uninterrupted production and creation of industrial peace, which can offer the prospects of a new way of life in industry to the advantage of everybody concerned. Even though the scheme had been well thought-out and has been successfully implemented, we still need to ask ourselves whether it is producing new ideas, whether it is sustaining interest or whether it has settled down into a rather pointless routine. Above all, it should be emphasised here that it is not the form and the manner of its implementation, rather the content and spirit behind it that are critical to its success. □

Workers' Participation for Increased Satisfaction and Productivity

Prayag Mehta*

Increasing attention is now being focussed on workers' apathy towards work. The technology of work and its social organisation reduce the worker to the status of a small piece in the entire complex machinery. Work is so much fragmented that it is reduced to a routine monotonous drudgery for a large number of people. The complexities of the industrial organisation and the centralised decision-making processes accentuate the feelings of helplessness among employees and workers. The work monotony and the growing sense of helplessness tend to reinforce the wokers' apathy towards work.

Workers' Participation

Researches conducted in the last few decades have shown that participation of workers in the various work and decision-making processes increase their work satisfaction and decrease their work apathy (Blumberg, 1968; Pateman, 1970). It not only reduces industrial tensions and conflicts but also works as a positive instrument for the development of the people concerned as well as for the promotion of productivity and creativity. Under the New Economic Programme, worker participation has been given an important place. This has been done with the objective of drawing more and more people at the lowest levels of work organisation to the processes of decision-making and management of day-to-day work situations.

Rising Aspirations

The various developmental and people-oriented activities have stimulated the tempo of rising aspirations in people, particularly among the weaker sections. There has been increasing social awareness and an enhanced desire for a better and more satisfying life as well as work. The more conscious among the workers now tend to compare their roles *vis-a-vis* the roles of the supervisors and other people in the organisation. It

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reflects a positive change in their self concept and a desire for a better status in the organisation. The workers' participation programmes seek to respond to such rising aspiration.

Work-Related Satisfaction

Studies (Mehta, 1976) on workers' participation show that workers seek satisfaction in various dimensions of their work-related situation. Some important dimensions are summarised below :

Influence : There is now a greater desire for influence in decision-making process. Workers now feel more dissatisfied with decisions concerning their work when such decisions are made without their involvement. This is identified as the most significant factor in work-related satisfaction/ dissatisfaction. Deprivation of such a sense of influence tends to generate dissatisfaction with work and supervisors, *albeit* with the entire organisation.

Autonomy : Along with an increasing desire for influence, there is an increasing desire for greater autonomy at work. This is understandable in the context of rising aspirations. People do want to have a greater say as well as greater freedom in carrying out their various work activities. This is particularly so among the skilled workers. As is known, most of the leaders and representatives of workers come from categories of skilled workers. Such workers are one or two steps below the first level of management. They tend to compare themselves with their supervisors, they think that they know their jobs as well as their supervisors do and that they should have greater freedom in carrying out their various activities.

Friendly Relationships : One of the important social needs of the workers is to have warm and friendly realtions with peers. They want to work with and among friendly people. Lack of such relationship significantly increases their dissatisfaction with work itself.

Supervisory Behaviour : Similar to their desire for friendly relationship with peers, is the desire for more respectful relationship with supervisors. Workers now desire to have mutually-trustful and respectful relationship with their supervisors. This is quite understandable in view of their

desire for influence and autonomy. Disrespectful supervisory behaviour can lead to considerable work dissatisfaction among the workers.

Trust and support : Along with respectful supervisory behaviour and friendly interpersonal relations with peers, is the desire for greater trust in themselves and support from others in the work organisation. This is indicative of a desire for more humane treatment as well as for greater concern from the organisation for their welfare.

Work Amenities : Work amenities continue to be a very important source of worker dissatisfaction. Lack of proper housing, water facilities, cateen, educational facilities, etc. continue to agitate the workers' mind, giving rise to all kinds of grievances and dissatisfaction.

Participation and Satisfaction

As mentioned above, workers' participation may work as an instrument for promoting greater satisfaction among the workers. Effective participation, therefore, can reduce work-related dissatisfaction. Representational kind of participation, as is being visualised under the workers' participation programmes, can provide a forum for the worker representatives and others whom they represent to exercise greater influence in day-to-day work situation. Such participation cannot function effectively without promotion of trust and support, respectful supervisory behaviour and friendly interpersonal relations. They are important pre-requisites for successful implementation of workers' participation. Hopefully, participation by workers in joint councils etc., in turn, will promote such relationships. Workers will also get a chance to discuss and decide various actions for the betterment of the work amenities. This will give them a chance for participation in tackling some of the difficult problems facing workers in relation to their work as well as life.

Work-Related Satisfaction and 'Democratic' Consciousness

Researches (Mehta, 1976; 1976a) suggest that increasing influence and autonomy as well as more respectful supervisory behaviour and friendly relationships contribute significantly to the growth of democratic consciousness among the workers. Satisfaction of having influence and

autonomy in the work place tend to contribute to the growth of a sense of civic competence or political efficacy among the workers. Such satisfaction helps them develop a sense of subjective competence elsewhere in the wider civic affairs. Friendly interpersonal relations and respectful supervisory behaviour contribute towards acceptance of democratic norms. Such satisfied workers tend to perceive order and normfulness in civic and other such activities. Such acceptance of norms and perception of normfulness promote faith in the legitimacy of democratic institutions. Satisfaction with trustful and supportive relations in the work organisations and satisfactory work amenities contribute toward the development of a general faith in other people. Such a learning can produce a significant dent in the workers' traditional conservative social outlook. Thus, work-related satisfaction has important social and civic implications. Workers' participation, by promoting work-related satisfaction in the above areas, can work as an effective school for imparting democratic education to the workers.

Changing Consciousness for Productivity and Prosperity

Samples of imaginative behaviour obtained in response to pictures from workers' representatives on participative committees, suggest some interesting pointers (Mehta, 1976b). Responding to a theme card depicting *a Line of People* in front of some obscure building, they projcted the need for discipline and the desirability of order as against disorder in the past. They thought that it was a change for the better. They also imagined the need for collective action for social good with particular reference to higher productivity and progress of the country. They perceived the queue as a symbol of such collective action. They also perceived that the scarcity of essential commodities was due to hoarding and blackmarketing and that attempts are being made to curb such evils. For some respondents, the line of people was the symbol of determination for controlling such evils. Responses to another card depicting *Present and Future* (symbolised by an adult and a child) showed imagination for better future. The workers' representatives compared their present life with the anticipated life of their children and hoped for the better. There were also traces of pessimistic future and insecurity due to unknown future. However, the dominant responses showed their desire for better education of their children. They appeared quite determined to provide such education despite hardships and financial

difficulties. Responding to another card depicting *Leader and Followers*, the workers imagined their leader explaining a plan for agitation, ideas for increasing production and prosperity of the country. They also imagined that the assembled people were discussing their grievances with leader/manager. Here also the dominant theme in their imagination was for service of the country through increased productivity and collective action.

Responses to questionnaires can easily be contaminated by various factors. The projective response in relation to certain controlled pictorial stimuli provided a better source of understanding the workers' imagination and motivation. The data suggested the possibility of an important shift in their consciousness. Viewed in the context of the programme of workers' participation, such changed consciousness could become a significant basis for successful partnership and joint efforts for increased productivity as well as work-related satisfaction for the concerned people.

A properly-designed programme for workers' participation, as summarised in Fig. 1, is likely to lead to increased work satisfaction, which, in turn, is likely to increase the workers' sense of efficacy as well as their democratic commitment. The workers' reponse to such programmes suggest a good possibility for successful launching of workers' participation programmes. Such programmes are likely to result in increased work satisfaction as well as in increased productivity.

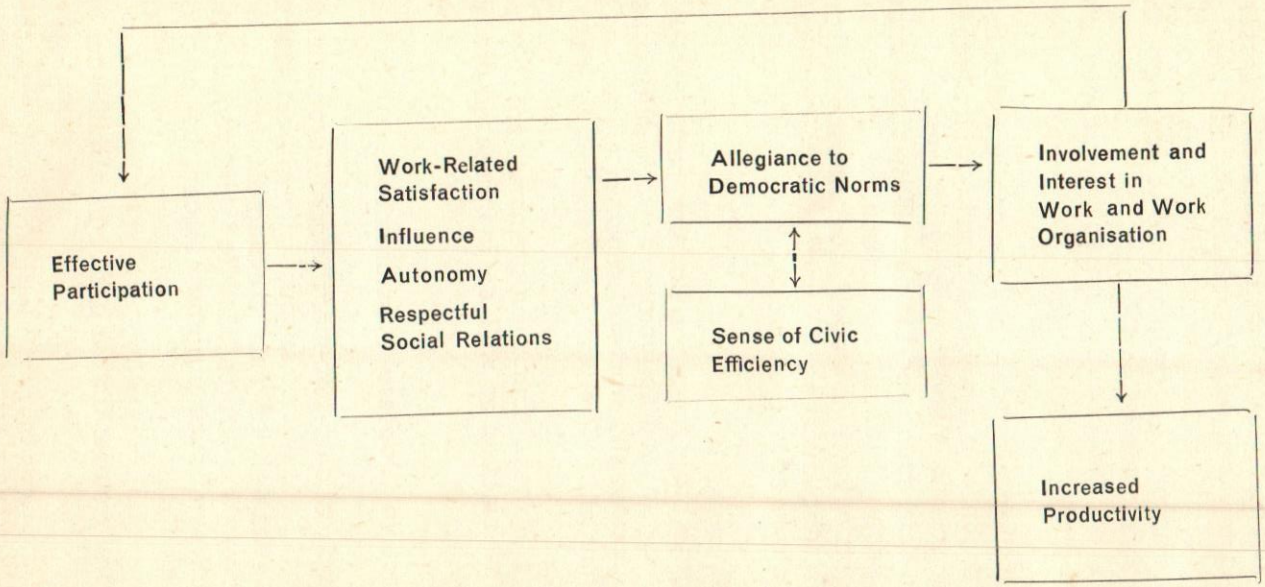
Developing Effective Workers' Participation

The important educational-cum-management programme of workers' participation cannot be launched successfully without adequate preparation. It involves suitable designed training of both the management nominees and the workers' representatives* and various other interventions. The objectives of such programmes can be briefly summarised as follows :

1. Workers generally suffer from a backlog of traditional backwardness

* Such a workers' participation programme is being conducted at the Bharat Coking Coal Limited, Dhanbad. A copy of a report on this programme can be obtained from the author.

Fig. 1 : Conceptual Model for Effective Participation



and conservatism. Such a consciousness retards their interest in wider civic life and produces in them an apathy towards and withdrawal from such civic activities, including the democratic institutions. Workers' participation should be used to develop progressive and democratic social outlook in workers.

2. The workers' representatives on the joint shop-floor and other committees can become agents of diffusion of progressive social consciousness among the large body of workers. The workers' participation programme, should help the worker representatives carry out this important task.

3. The traditional management by exclusion of workers from the process have led to their monopolising the entire influence. Workers' participation programme should help the various categories of managers to develop a more democratic outlook and a greater readiness for participating in decision-making processes along with others in the organisation.

4. Working over the years have developed a certain amount of cynicism towards management. They tend to think that managers, by and large, act againt the interest of the workers. The workers' participation programmes should try to develop positive mutual images among workers and officers.

5. The workers' participation programme should aim at increasing allround work-related satisfaction and developing the creativity and productivity of the work-force. It should, therefore, be used as an instrument of increasing production as well as satisfaction.

Training Programmes

The workers' participation programme cannot achieve its objectives without developing the necessary attitudes and skills. The training programmes, therefore, should aim at the following specific objectives:

1. The leading workers and worker representatives as well as the management nominees on the shop floor and other levels of joint committees should be helped to develop decision-making skills and skills of persuasive communication.

2. Development of readiness for sharing responsibility and powers. The programme should aim at helping the concerned people develop a collaborative strategy of working.

3. Several problems are common to workers and officers. They should be helped to develop joint problem-solving skills. It is particularly necessary for tackling problems relating to the working conditions and the day-to-day amenities at the work place. The programme should bring about an effective positive interface between workers and officers with a view to helping them understand each others' point of view and appreciate the various dimensions of such problems.

4. The representatives should be helped to develop skills for necessary data collection, understanding of such inter-related data, presentation of factors in the joint committee meetings and persuasive presentation of such factors with a view to increase understanding of their point of view. At the same time, it should also develop skills in listening and understanding others' point of view.

5. The management should be helped to move towards a participative system. It would require basic changes in their attitudes and consciousness as well as various kinds of structural changes in the organisation. □

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Workers' Desire for Participation : An Empirical Study

Deepti Bhatnagar*

At least for the last quarter of a century, workers' participation in management has been a major component of government programmes, particularly in socialist countries. Yugoslavia, West Germany, United Kingdom, United States, Sweden, France, Belgium, have been among those experimenting with this theme, though it has assumed different forms in different countries in order to meet their special needs. In India, the movement for workers' participation was formally launched with the institution of at voluntary scheme of Joint Management Council in 1958. But as a resul of the cool indifference or hostility exhibited by managers as well as workers' leaders, the scheme did not achieve any success.

However, the government is trying to revive the issue of workers' participation once again. Its inclusion in the Prime Minister's 20-Point Programme has invested it with a sense of urgency and importance.

A major contributory factor for the failure of workers' participation schemes in India and in countries abroad is the apathy of workers. Though numerous scientific studies of effects of workers' participation have been conducted by social scientists, little attempt has been made to view it from the point of view of workers. If workers' participation is to become a success, main issues to be explored are whether workers really want participation, and if so, then in what kinds of decisions, with how much intensity and through which institutional forms. Only if a scheme for participation is evolved out of an understanding of the above problems can it find ready acceptance among workers and be useful for the management.

Employee's Attitude Towards Participation : Some Empirical Studies

Ever since the findings of the Mayo experiments, participative management has remained a favourite theme with the social scientists. Numerous field studies, experiments, case studies and surveys have been conducted in the organisational setting to understand the dynamics of participation.

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Underlying all these studies is the assumption that workers have a desire to participate in managerial decision making, and by satisfying that desire, organisational objectives like commitment and productivity can be achieved to varying extents. Only a few researchers have paused to question the legitimacy of this assumption, and still fewer have tried to examine empirically the workers' desire for participation.

In his conceptual framework for participation, Kenneth Walker[1] has discussed the role of situational and human factors in determining the extent of *actual participation*. Under human factors, he included workers' propensity to participate and management's acceptance of workers' participation. Workers' propensity to participate is determined *inter alia* by workers' attitudes towards the idea of influencing managerial decisions and their interest in personally participating in various managerial functions. In his model, Walker acknowledged the significance of employees' participatory desire by maintaining that though situational factors determine the participation potential of a particular enterprise, the human factors (like participatory desire) determine the extent to which this potential can be realised.

Whereas Walker treated employees' motivation for participation as one of the several determinants of the extent of participation, Mulder holds this motivation as the most important determinant[2]. Mulder has argued that in most countries (he cites studies conducted in Netherlands, Yugoslavia, etc.), employees have a low desire to participate in managerial decision-making. Departing radically from other behavioral scientists, Mulder observes, that it is the academician and not the workers, who feel that participation is needed and that structures like works councils with their attendant rules and regulations are the best forms to provide participation. According to Mulder, the main problem to be explored is, "whether with regard to participation the academicians are not acting and thinking too much on the basis of their own motives and abilities ..perhaps these do not coincide with the motives and abilities of others." There is, thus, a need to disentangle academicians' motives and abilities from those of the employees and to study objectively the extent of employees' willingness to participate in organisational dicision-making and the areas in which they want to participate.

1 Walker, K.P. "Workers' Participation in Management : Problems, Practice and Prospects", *IILS Bulletin*, No. 12.

2 Mulder, M, "Power Equalisation Through Participation ?" *Administrative Science Quarterly*, Vol. No. 1 March 1971.

Derber has also emphasised the need for research in this area. Discussing participation as a form of industrial democracy, he observes, "this aspect of industrial government has been the most controversial and the most uncertain. Its future prospect remains equally murky until more understanding is obtained on its fundamental elements. How much and what type of participation do employees want in decision-making and what kinds of participation are they most capable of ?"[3]

Among the few empirical studies of employees' attitude towards participation in decision-making can be quoted the studies of Holter[4]. and Alutto and Belasco[5]. Harriet Holter studied the responses of 1130 subordinate employees in 18 Norwegian firms to a questionnaire concerning their attitudes and reported behaviour in work situation. Holter's most important finding was that though employees expressed desire for more joint participation, the desire was "vague and diffuse". Most respondents did not feel the need for greater *Personal* involvement and control in decisions taken at the top management level. However, there was a widespread desire to increase one's participation in matters related to one's work and immediate work surroundings.

Alutto and Belasco have studied participatory desire in terms of employees' demand for participation and management's supply of it. The authors developed a continuum of participation typified by three conditions : (1) decisional deprivation—where employees get less participation than desired, (2) decisional equilibrium—where demand and supply of participation coincide, and (3) decisional saturation—where employees participate in greater number of decisions than desired. Data for the study were collected from teachers in two district schools in New York State. For a series of twelve decisions the subjects indicated (a) whether they currently participated in the decision, and (b) whether they wished to participate and accordingly their participatory discrepancy was computed. Relating these decisional attributes to personality characteristics,

3 Derbar, Milton, *The American Idea of Industrial Democracy 1865-1965* (London, University of Illinois Press) 1970 p. 527.

4 Holter, Harriet, Attitudes Towards Employee Participation in Company Decision-making Process : A Study of Non-supervisory Employees in Some Norwegian Firms, *Human Relations*, Vol. 18, No. 4, 1965.

5 Alutto, J. A. and Belasco, J.A. A Typology for participation in Organizational Dicision Making, *Administrative Science Quaterly*, Vol. 17, No. 1, 1972.

Alutto and Belasco found that decisional deprivation did not lead to significantly lower organizational commitment than decisional equilibrium or saturation. Aso, the personal and organizational characteristics of respondents belonging to different decisional states were different.

These researches provide valuable insight into participatory desire. In both these empirical studies an attempt has been made to investigate participation from the viewpoint of employees. The findings also suggest that some assumptions about the consequences of increased participation in decision-making need to be modified. For example, Alutto and Belasco found no evidence to support Patchen's[6] contention that decisional participation leads to greater organisational commitment.

Indian Study

In India, unfortunately, little attempt has been made to investigate participatory desire empirically at the micro-level. The few empirical studies of participation have remained confined either to consequences of participation or managerial predisposition for participation.[7] The present study was undertaken in order to fill this gap.

Research Objective

The major problem of this research was to examine, In the Indian industrial setting, the basic assumption underlying Participation Theory, namely, employees' desire for participation. The research objective was to find out the extent to which employees want participation in different areas of managerial decision-making.

Methodology

In order to study respondents' participatory desire, six different areas of decision-making (namely decisions related to one's work, safety decisions, technical decisions, welfare decisions, decisions pertaining to remunera-

6 Patchen. Martin, *Participation, Achievement and Involvement on the Job* (Englewood Cliffs : Prentice-Hall) 1970.

7 See for example, Dhingra O.P. "Participative Predisposition of Managers in the Indian Public Sector Industry" *Industrial Democracy : Some Issues and Experiences* Ed. Thakur and Sethi : (New Delhi) 1973.

tion, and managerial decisions in areas of production, marketing, personnel and finance) were identified. In each such area, several decision problems were included. The schedule consisted of 24 decisions regarding which the respondents had to indicate the strength of their desire to participate.

For structuring the responses, the familiar typology of participation ranging from no sharing of information, sharing of information, consultation, active participation through discussions, to total delegation, was operationalised into eight alternative statements. Union participation was also included as one of the alternatives. For each decision, respondents had to indicate desired participation by choosing one of the eight alternatives (see Exhibit I).

Exhibit I

DESIRE FOR PARTICIPATION

List of alternative responses

1. This decision does not affect me and I am not interested in it.
2. Though the decision affects me, I am not interested in it.
3. I do not want to be involved in deciding this, but I want to know the decision after it has been taken.
4. I want to give my suggestions before this decision is taken.
5. I want to take a direct part in discussions before a decision is made.
6. I want that the management should consult our union before a decision is made.
7. I want to decide on my own.
8. I want to decide after consulting my peers.

In order to find out whether work technology influenced workers' participatory desire, it was decided to conduct the study in two organisations with entirely different technology. A fertiliser factory and a textile factory were selected for the study. Decisional items in the questionnaire were slightly different in the two organisations so as to suit their respective technology. Data were collected from 58 operators and senior operators from the former and 60 workers and senior workers from the latter organisation on the basis of random selection.

Table : 1 Desired Participation (Fertilizers Factory) Frequency Distribution of Alternative Responses

Decision Category	Alternatives Decision	Not affected by the decision and not interested in it	Though affected, not interested in the decision	Want to share information	Wanted to be consulted	Want to participate actively	Want union's participation	Want delegation	Want to delegate but would like to consult colleagues	Total
Decision related to one's work	1. Sequence of work	0	0	7	17	7	1	23	3	58
	2. Method of work	0	0	4	10	6	1	26	11	58
	3. Coordination	0	0	2	7	9	0	10	30	58
	4. Evaluation of work	1	7	31	9	4	1	1	4	58
Safety	5. Safety regulations	0	0	8	20	7	1	19	3	58
	6. Purchase of safety equipment	1	5	15	25	9	1	0	2	58
	7. Quality of new safety equipment	5	9	14	25	1	0	1	8	58
Technical Decisions	3. Time for preventive maintenance	1	3	18	22	9	0	2	3	58
	9. Spare parts inventory	8	6	20	14	7	1	0	2	58
	10. Maintenance priority for jobs	1	0	15	16	9	0	11	6	58
	11. Time for partial shutdown	3	6	27	14	6	0	1	1	58
Personal Decisions	12. One's shift timings	0	7	18	17	2	7	3	4	58
	13. Pay/allowances	0	0	11	8	18	17	2	2	58
	14. Fringe benefits	0	2	14	9	3	29	0	1	58
Welfare Decisions	15. Place for water-cooler	2	3	8	21	10	7	1	6	58
	16. Canteen prices	0	6	9	15	4	20	2	2	58
	17. Club activities	5	6	11	17	7	5	1	6	58
	18. Conveyance for employees	9	9	14	11	4	11	0	0	58
Managerial Decisions	19. Promotion policy	0	4	19	8	4	21	1	1	58
	20. Training programme for employees	24	3	20	7	3	0	0	1	58
	21. Setting production targets	13	6	29	4	4	1	1	0	58
	22. Marketing of product—where and how	42	2	13	0	1	0	0	0	58
	23. Purchase of equipment for one's section	49	3	6	0	0	0	0	0	58
	24. Purchase of equipment some other section	41	2	11	5	0	0	0	0	58

Table 2 : Desired Participation (Textile Factory) Frequency Distribution of Alternative Responses

Decision Category	Alternatives Decisions	Not affected by the decisions and not interested in it	Though affected not interested in the decision	Wanted to share information	Wanted to be consulted	Wanted to participate actively	Want union's participation	Want delegation	Want to delegate but would like to consult colleagues	Total
Decision related to one's work	1. Sequence of work	0	0	10	2	0	0	48	0	60
	2. Method of work	0	0	2	1	0	0	57	0	60
	3. Evaluation of work	1	1	52	5	1	0	0	0	60
Safety	4. Safety measures	2	0	8	24	1	22	3	0	60
	5. Maintenance of cleanliness	0	0	5	54	0	1	0	0	60
Technical* decisions	6. Location of defects in machine	1	1	19	34	3	0	12	0	60
	7. Correction of defects	2	2	32	18	2	0	4	0	60
	8. Replacement of minor spare parts	0	0	33	23	0	0	4	0	60
	9. Replacement of major spare parts	3	1	51	5	0	0	0	0	60
Personal decisions	10. One's shift timings	0	0	38	19	0	0	3	0	60
	11. Pay/allowances	0	0	4	6	0	43	7	0	60
	12. Inter-departmental transfer	0	0	8	49	3	0	0	0	60
Welfare decisions	13. Drinking water facilities	0	0	6	32	1	21	0	0	60
	14. Canteen Prices and menu	5	0	1	0	0	54	0	0	60
Managerial decisions	15. Promotion policy	4	0	43	12	0	1	0	0	60
	16. Training apprentices on the job	24	1	16	2	0	17	0	0	60
	17. Setting production targets	21	0	35	3	0	1	0	0	60
	18 Marketing of product—where & how	35	1	24	0	0	0	0	0	60
	19. Purchase of equipment for one's section	8	0	12	23	0	17	0	0	60
	20. Purchase of equipment for some other sec.	45	0	6	0	0	9	0	0	60

*Decisions under 'Technical' category were borrowed from Sheth, N. R. "Dimensions of Organizational Role : A Case Study of the Supervisor in a Textile Mill" *Indian Journal of Industrial Relations*, Vol. 8, No. 4, April 1973, pp. 586-587.

Some of the major findings are presented in the following section.

Results

Tables 1 and 2 present distribution of responses regarding desired amount of participation for each decision. Data from fertiliser factory and textile factory are presented separately. Figures for each column indicate the number of respondents who desire that particular kind of participation for each decision. A perusal of these tables yields the following facts :

1. Most managerial decisions were perceived as not affecting the employees.

In both the organisations, respondents expressed a general apathy towards decisions pertaining to promotion policy, production targets and marketing problems, hence the large number of responses for managerial decisions under column number 1. There were negligible number of responses for the same decisional category under column number 2 wnich mean that to most respondents these decisions concerned remote issues which were seen to have no connection with their immediate reality.

This is a significant finding, for it indicates that rank and file workers do not care for participation in managerial decision-making through representation on the board. The fact that the same picture changes in both the organisations shows that irrespective of their level of education, technical qualifications and technology of work, employees in general have little concern for these decisions. Though quite a few respondents expressed a desire to know these decisions after they had been taken, they did not desire further involvement through consultation or active participation.

2. There was a widespread desire to share information about safety and technical decisions.

Respondents from both the organisations complained that sometimes they were not even informed about some vital technical decisions and as a result their work was adversely affected. There was a widespread

curiosity about the evaluation of one's performance. Respondents from the fertiliser factory were particularly vocal about the need to know their evaluation reports so that they could improve their performance. As mentioned earlier, some respondents also wanted to share information about managements' long-term decisions about production, marketing, personnel policies, etc.

This highlights the need for a greater dissemination of information by the management. More information sharing was rightly demanded for safety and technical matters, for ignorance of these issues could lead to avoidable accidents or impairement of worker's efficiency.

3. Respondents in both the organisations expressed desire for consultation in safety, technical and welfare decisions.

In the fertiliser factory, the frequency distribution for desired consultation was greatest for new safety equipment, quality of the safety equipment and decisions about fringe benefits. In the textile factory, consultation was sought by most respondents for decisions about maintenance of cleanliness, inter-departmental transfers, and location of defects in one's machines.

Our discussion so far shows that irrespective of differences in technology and other organisational and personal attributes, respondents from both organisations desired similar kind of participation for some decisional categories. This can mean that perhaps the above findings can be generalised to some extent. It also indicates that, to be useful, any scheme for worker participation should have extensive provisions for information-sharing and consultation for safety, welfare and technical matters.

The following discussion indicates some areas of differential responses for participatory desire.

4. In the fertiliser factory, direct participation was desired for some decisions affecting respondents. Workers from the textile factory showed little desire for this kind of participation.

As column No. 5 of Table I shows, some respondents from the fertilizer factory desired an active part in deciding their salary and allowances,

and for decisions about need and place for water cooler (18 and 10 responses respectively). For other decisions there were scattered responses (between one and nine). This is an unexpected finding—normally one would have expected a more widespread desire among educated operators for active porticipation in decision-making.

In the textile factory responses were much fewer. Very few respondents (not more than three for any decision)showed a keenness to participate actively in deciding any issue—even those which affected workers directly.

5. The involvement of the union was desired for wage settlement and welfare issues. However, the demand was widespread in the textile factory; in the fertilizer factory very few respondents wanted it (the difference is attributable to tradition of a strong trade unionism in the former and a weak union in the latter),

In the fertilizer factory, union's participation was desired most for decisions on fringe benefits, formulation of promotion policy, and canteen affairs. But in the textile factory, there was an overwhelming demand for union's paticipation in canteen affairs and wage settlement, (54 and 43 responses respectively). Next came decisions about safety measures for workers and drinking water facilities (22 and 21 responses). This shows that textile wokers trusted their union to look after their safety and welfare.

An interesting feature in the textile factory was that though few respondents opted for individual participation, a large number wanted their union to participate in making different decisions. Respondents attributed their diffidence for personal participation to their lack of education and understanding of organisational affairs. Yet theoretically, they all believed strongly that workers should share management's power of making and executing decisions. Therefore, they wanted the union to represent workers' interests in different decision-making situations.

6. Decisional delegation was desired for work decisions in both organisations. Majority of respondents expressed a desire to have complete freedom in deciding the method and sequence of their work. In both organisations superior's interference in routine tasks of employees was resented.

There was negligible demand for delegation in other decisions. The only noticeable exception was in the fertiliser factory. There, one-third of total respondents demanded total freedom to decide safety regulations and precautions on the job. This can be explained in terms of the accident-prone nature of chemical technology. Because of relatively high incidence of mishaps in the factory and a vague feeling that management was indifferent towards employee safety, respondents wanted that safety decisions should be delegated to lower levels where it really mattered.

In the textile factory major accidents seldom took place and as a consequence safety issues did not generate so much concern.

This implies that safety matters assume different significance for workers according to the work technology. Therefore, supply of participation for safety decisions has to vary as one moves from less accident susceptible to more accident-susceptible technology.

Conclusion

The above discussion can be summed up in the following table :

Table III Demand for Different Participatory Forms in Textile and Fertilizer Factory

Decision category	*Form of participation demanded in*	
	Textile factory	*Fertiliser factory*
1. Decisions related to one's work	Delegation	Delegation
2. Safety	Information sharing and consultation	Consultation and delegation
3. Technical decisions	Information sharing	Information sharing
4. Personal decisions	Union participation	Personal participation
5. Welfare decisions	Union participation	Personal and union participation
6. Managerial decisions	Apathy or information sharing	Apathy or information sharing

In so far as findings of this research study can be generalised, we have found evidence in support of the following propositions :

1. For categories listed above, workers desire decreasing amount of participation from first to last decisional category. Thus, whereas for work decisions there was a widespread demand for delegation, for managerial decisions respondents' interest was confined to indifference or mere sharing of information.

2. As we move from primitive to advanced technology (represented here by textile and fertilizers), in general the demand for participation increases. For safety decisions, textile workers would be content with information sharing or with some consultation but fertilizer employees demand not only consultation but also delegation.

3. In industries like textile with a long history of established trade unionism, union participation is desirable for decisions about remuneration and welfare decisions.

In new and growing organisations like fertilizers where organisational emphasis is on individual excellence and there is little identification with unions, the accent is on personal participation. In such organisations, employees themselves like to take part in making decisions instead of being represented by unions. Therefore, these managements can plan to have greater individual involvement for different decisions.

These findings indicate that demand for different forms of participation varies from decision to decision and from organisation to organisation. Therefore, instead of institution of a macro-level participation scheme, each organisation or at least each industry can evolve its own participation plan so that workers can derive maximum satisfaction out of it. The present research has sought to provide guidelines for a selective approach to participation. □

Workers' Participation in Management in Steel Industry

N. K. Singh*

The Steel Industry in India has a long tradition of workers' participation in management. Right from the time TISCO (1956) and Bhilai (1960) initiated workers' participation in management, various other steel plants have been involving their workmen in welfare and settlement of grievances in various forums. In 1971, Production Committees were formed in Rourkela which paved the way to a new approach to the work-based participation in steel industry. The participation for the steel-men, therefore, means much more than mere representations on a bipartite forum. It means a culture which has openness to new ideas and imbibes receptivity to various viewpoints in forging ahead for progress and higher production and productivity.

The declaration of Emergency and introduction of the 20-Point Economic Programme, has ushered in a new era of industrial progress in the steel industry. The most important single factor responsible for this is the tremendous response from workers to the scheme of workers' participation, which resulted not only in increased production and capacity utilisation, but a record reduction in the manhours lost in steel plants.

Participation from Shop Level to Apex Level

The Joint Negotiating Committee for the steel industry broke new ground in the history of industrial relations in India with the setting up of Joint Negotiating Committee for the Steel Industry in 1969. This Committee, now known as the National Joint Consultative Committee for the Steel Industry in India, is dealing with the problems of the steel industry as a whole at the national level. Apart from the national agreements arrived at by this committee in 1970 and 1975, it deals with matters of national importance such as the setting up of annual production targets for the steel plants and for the industry, standardisation of wage and other benefits through its Standardisation Committee and environmental control and welfare matters. The committee consists of 15 representa-

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tives of the workers and eight representatives of the employers. The Committee has played an important role in the growth and development of the industry, particularly ensuring harmonious and peaceful industrial relations that have prevailed in the recent past.

There is a three-tier system of joint consultation in the steel plants (bipartite committees at the plant level, zonal level and bipartite committee at the department level). Floor level committees have been set up in all the operation and maintenance services. The shop-floor committees discuss day-to-day shop problems. They are also responsible for reviewing production performance, increasing productivity and maintaining discipline at the shop-floor level.

Various forums of workers' participation are functioning in all public sector units under Steel Authority of India Ltd. (SAIL) as also in TISCO and IISCO. In the Steel Plants and its captive mines including TISCO, IISCO and VISL, there are about 546 Joint Committees at the shop and plant levels in which over 2335 workers and an equal number of management representatives are involved.

Magnitude of Workers' Participation in the Steel Industry

Plant/unit	*No. of Apex/Central committees*	*No. of Zonal/Departmental committees*	*No. of shop-floor committees*	*Total*
1. BSP	6	36	140	182
2. RSP	7	9	52	68
3. DSP	8	5	60	73
4. ASP	6	—	17	23
5. BSL	1	—	26	27
6. IISCO	5	—	2	7
7. VISL	7	—	16	23
8. TISCO	15	6	38	59
9. HSCL	2	3	11	16
10. NMDC	1	34	24	59
11. Bolani ores Limited	7	—	4	11
Total	65	93	390	548

One of the important steps to ensure employee motivation is to promote satisfaction of employees. The grievance committees meet frequently. The number of grievances disposed off by these joint committees during the year 1975 is 1688.

The other bipartite committees also meet every month and the number of meetings held by each during the quarter January-March 1976 are indicated below, covering plant and mines :

Name of the Plant	*No. of meetings held*	*No. of recommendations made*	*No. Implemented*
BSP	410	832	489
RSP	74	210	139
DSP	37	13	13
ASP	81	190	119
BSL	63	216	94
VISL	189	122	73
HSCL	33	85	87
	887	1668	1014

The survey of industrial relations in the steel industry presents a bright picture and with the active cooperation and understanding on the part of the workers and the trade unions, there is every hope that 1976-77 will be harmonious and the industrial relations climate will be conducive to maximum output.

With such a large complex of workers' participation system working in the steel industry, it is useful to look at the rewarding experience obtained during this process. It is extremely difficult to isolate factors to pinpoint any one ingredient of the entire structure or living experience to be responsible for a particular task and yet judging from certain broad indications some of the gains of the participative system can be mentioned :

(a) The entire organisational structure of the steel industry has become more open to various viewpoints and ideas from all levels of working in the organisation. The working of the bipartite forums has provided a free access to the workers to systematic and proper utili-

sation of data made available to them. This has cleared the channels of communications.

(b) The man-hour loss in steel industry has shown steep decline as evident from the following figures :

	1974-75	*1975-76*	*1976-77 (1st two quarters)*
Total in four Steel Plants	5,27,776	41,981	Nil

(c) Looking to the impact on productivity, the steel production has shown an upward trend and even the manpower productivity indices are showing positive achievements. The comparison of ingot-tonne per man-year during the last two years is given below :

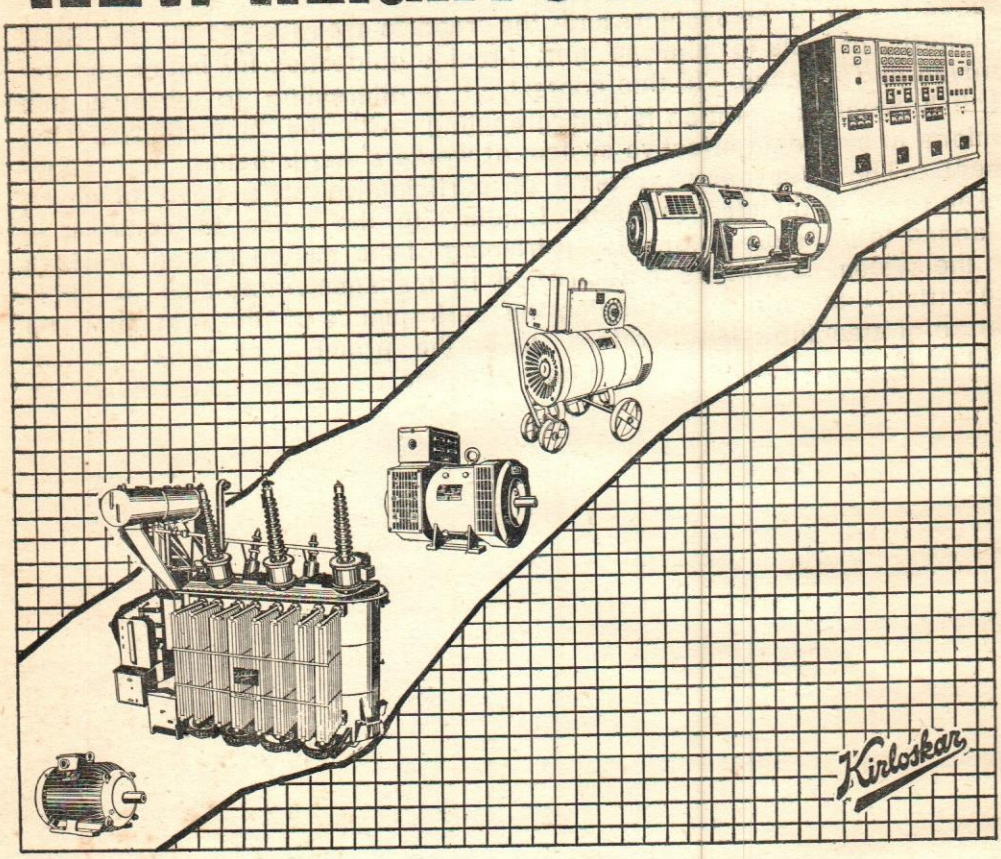
Productivity figures	*1974-75*	*1975-76*
Bhilai Steel Plant	70	76
Rourkela Steel Plant	48	54
Durgapur Steel Plant	35	44

(d) From the feedback which we have received from the trade unions and the management who are operating participative forums in their plants, the trade unions have positively responded to the added emphasis on approach to participative management and displayed keen desire to share responsibility while sharing power. This has led to a healthy employee-employer relationship.

In a large sector employing 2,50,000 persons, the problems will continue to crop up. The strength of the system, however, lies in constructively resolving the problems at various levels with a view to contributing to higher productivity and better climate in the organisation. The present system of participation functioning right from the shop level to the apex level in the form of National Joint Consultative Committee has proved its merit. Detailed studies in this matter have revealed considerable improvement in understanding as well as added problem-solving ability of the organisation at different units. At times, the issues have cropped up with regard to the representation and with regard to the promptness and efficacy in handling the matters raised in the bipartite forums. Conti-

nuous review of the systems and the reports are received at the Steel Authority of India to analyse and provide guidelines for better and improved performance. In this context, it is interesting to observe that British Steel Corporation is still grappling with the multiplicity of the unions to evolve an effective system of workers' participation in management. The values and systems of participative style have, however, taken roots in the steel industry of India. In the times to come, it is planned to put more emphasis on training of the managers and workers in the system of workers' participation in management as also to apply quantitative techniques in judging the performance of the system. The future of steel industry, therefore, holds the promise of various possibilities in new directions and in new horizons. □

NEW HEIGHTS REACHED



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Scheme for Workers' Participation in Industry at Shop-Floor and Plant Level

One of the items in the Prime-Minister's 20-Point Economic Programme relates to the introduction of schemes for workers' participation in industry, particularly at the shop-floor level and in production programmes. In pursuance of the same, the government announced a scheme for workers' participation in industry through a Resolution on 30th October, 1975. Text of the Resolution is reproduced below.

1. To begin with, the scheme will have to be flexible so as to allow variations to suit local conditions and hence will be implemented through executive action. Various forms of workers' participation are already in vogue in certain units in different industries, particularly in the public sector. Gevernment are, therefore, of the view that the matter should be left to the initiative of the managements to evolve a suitable pattern of participation depending upon the nature of each unit. Legislation will be considered after adequate experience is gained.

Coverage

The scheme will be implemented, in the first instance, in manufacturing and mining industries whether in the public, private or cooperetive sectors. These will include also units run departmentally, whether or not the Joint Consultative Machinery set up is functioning in such units.

The scheme, for the present will apply to those units in such industries which have 500 or more workers on their rolls. The scheme will provide for shop councils at the shop/departmental levels and Joint Councils at the enterprise level.

Shop Councils

The main features of the Scheme of Participative Management through shop councils may be as follows :

(i) In every industrial unit employing 500 or more workmen, the employer shall constitute a shop council for each department

or shop, or one council for more than one department or shop, considering the number of workmen employed in different departments or shops;

(ii) (a) Each council shall consist of an equal number of representatives of employers and workers;

(b) The employers' representatives shall be nominated by the management and must consist of persons from the unit concerned;

(c) All the representatives of workmen shall be from amongst the workers actually engaged in the department or the shop concerned;

(iii) The employer shall decide, in consultation with the recognised union or the various registered trade unions or with workers, as the case may be, in the manner best suited to local conditions, the number of shop councils and departments to be attached to each council of the undertaking or the establishment;

(iv) The number of members of each council may be determined by the employer in consultation with the recognised union, registered unions or workers in the manner best suited to local conditions obtaining in the unit; the total number of members may not generally exceed 12;

(v) All decisions of a shop council shall be on the basis of consensus and not by a process of voting, provided that either party may refer the unsettled matters to the joint council for consideration;

(vi) Every decision of a shop council shall be implemented by the parties concerned within a period of one month, unless otherwise stated in the decision itself and compliance report shall be submitted to the council;

(vii) Such decisions of a shop council which have a bearing on another shop, or the undertaking or establishment as a whole will be referred to the joint council for consideration and decision;

(viii) A shop council once formed, shall function for a period of two years. Any member nominated or elected to the council in the mid-term to fill a casual vacancy shall continue to be a member of the council for the unexpired portion of the term of the council;

(ix) The council shall meet as frequently as is necessary and at least once in a month;

(x) The Chairman of the shop council shall be a nominee of the management; the worker members of the council shall elect a vice-chairman from amongst themselves.

Functions of the Shop Councils

The shop councils should, in the interest of increasing production, productivity and overall efficiency of the shop/department attend to the following matters :—

(i) Assist management in achieving monthly/yearly production targets;

(ii) Improvement of production, productivity and efficiency, including elimination of wastage and optimum utilisation of machine capacity and manpower;

(iii) Specifically identify areas of low productivity and take necessary corrective steps at shop level to eliminate relevant contributing factors;

(iv) To study absenteeism in the shops/departments and recommend steps to reduce them;

(v) Safety measures;

(vi) Assist in maintaining general discipline in the shop/department;

(vii) Physical conditions of working, such as, lighting, ventilation, noise, dust, etc., and reduction of fatigue;

(viii) Welfare and health measures to be adopted for efficient running of the shop/department; and

(ix) Ensure proper flow of adequate two-way communications between the management and the workers, particularly on matters relating to production figures, production schedules and progress in achieving the targets.

Joint Council

In every industrial unit employing 500 or more workers, there shall be a Joint Council for the whole unit. The main features of the scheme of Joint Council may be as follows :

(i) Only such persons who are actually engaged in the unit shall be members of the joint council;

(ii) The council shall function for a period of two years:

(iii) The chief executive of the unit shall be the chairman of the joint council; there shall be a vice-chairman who will be nominated by worker-members of the council;

(iv) The joint council shall appoint one of the members of the council as its Secretary. Necessary facilities for the efficient discharge of functions by the Secretary shall be provided within the premises of the undertaking/establishment;

(v) The term of the council, once formed, shall be for a period of two years; if, however, a member is nominated in the mid-term of the council to fill a casual vacancy, the member nominated in such vacancy shall continue in office for the remaining period of the term of the council;

(vi) The joint council shall meet at least once in a quarter;

(vii) Every decision of the joint council shall be on the basis of consensus and not by a process of voting and shall be binding on employers and workmen and shall be implemented within one month unless otherwise stated in the decision itself.

Functions of Joint Council

1. The Joint Council should deal with matters relating to :

(i) optimum production, efficiency and fixation of productivity norms of man and machine for the unit as a whole;

(ii) functions of a shop council which have a bearing on another shop or the unit as a whole;

(iii) matters emanating from shop councils which remain unresolved;

(iv) matters concerning the unit or the plant as a whole, in respect of matters relating to work planning and achieving production targets; more specifically, tasks assigned to a shop council at the shop/department levels but relevant to the unit as a whole will be taken up by the joint council;

(v) the development of skill of workmen and adequate facilities for training;

(vi) the preparation of schedules of working hours and of holidays;

(vii) awarding of rewards for valuable and creative suggestions received from workers;

(viii) optimum use of raw materials and quality of finished products; and

(ix) general health, welfare and safety measures for the unit or the plant.

Composition

There is considerable diversity in the situation prevailing from unit to unit in different industries. Even departmental undertakings and public enterprises under the same Ministry of the Government of India, have had to adopt different systems depending upon the local conditions and their individual needs. Keeping this diversity in view, no uniform pattern is being laid down for the constitution of Shop Councils and Joint Councils, particularly relating to the representation of workers. The management, in consultation with workers, should evolve the most suitable pattern of

representation so as to ensure that the representation of the workers results in effective, meaningful and broad-based participation of workers.

Communication

For any scheme of workers' participation to succeed, there must be an effective two-way communication and exchange of information between the management and the workmen. It is only then the workers would have a better appreciation of the problems and difficulties of the undertaking and of its overall functioning. With this end in view, each unit should devise a suitable system of communication within the undertaking.

Works Committee

The Works Committees, as prescribed under the Indusirial Disputes Act, shall continue to function as at present.

Appropriate Government

The scheme not being statutory, the concept of "appropriate government" as in the I.D. Act is not relevant. However, the Central and State Governments have an important role in promoting the healthy and speedy implementation of the scheme in as large a number of units as possible. While the initiative for the introduction of the scheme will mainly be with the undertakings concerned, all matters relating to the operation of the scheme will be dealt with by the Central Government in the case of the public sector/departmental units of the Central Government.

Conclusion

Government are aware that it is only by providing for such arrangements for workers' participation, particularly at the shop-floor and unit level, that the involvement of workers in the effective functioning of the unit and in improving production and productivity can be ensured. Government would, therefore, appeal to all the managements and workmen and trade unions concerned to take speedy and effective measures for the early adoption of the scheme in their units and for its continued healthy functioning.

Book Reviews

Price and Investment Relations : A Study in Applied Economics

Sir Robert Shone,

Paul Elek, London,
Available in India through Messrs. B.I. Publications, Lansdowne House, 18 Lansdowne Road, Bombay 400039, 1975. Rs. 126.75.

Reviewed by P. Chattopadhyay*

Sir Shone has drawn a wide canvas, providing sharp contours of various considerations bearing on the relationship between pricing and investment. He has deftly dealt with delicate issues that have called for urgent attention for purposes of policy, research studies covering different aspects of the issue have been relatively few and far between. The tenor of discussion adopted by the author is objective and analytical, while the factual support for individual contentions is irrefutable. Whether one agrees with him or not, the issues raised and the methods adopted for analysing them for churning out the possible policy guidelines and, above all, the pointers raised in the book have much to commend itself for wide readership among professionals and policy makers. The case example of British Steel Industry enhances its value to different classes of readers.

Divided in three parts, the volume deals with various interconnected issues. *Part one* spotlights on the interplay of pricing, investment and technical progress. Its focus is laid on areas such as new plant pricing, longterm marginal cost prices and technical progress and investment. *Part two* presents a price/investment systems model and its major parameters, reflecting on the constituent elements of the price and investment model, inflation and taxation, cost of capital, replacement investment and a review of the systems model in the light of real-life considerations. *Part three*, dealing with steel pricing, presents an analytical insight into steel price policy in Great Britain and its outcome; a running commentary on different aspects of the trends in long-term marginal cost pricing with reference to steel, and steel pricing and the EEC, stressing on various aspects of the EEC steel pricing policy. In eight appendices,

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the author presents the computer calculation of systems model, alternatives to graphical presentation, construction of index of value added for steel, export and home steel prices, labour, fuel and capital productivity in the steel industry, capital and operating cost savings, treaty constituting the European coal and steel community : prices-articles 60-64 and derivation of stock investment and tax formula. In sum, the context of price and investment, the relationship between them and the intricacies involved in each have been probed with a rare thoroughness and competency while the entire account has been readable, *albeit* interspersed with statistics in different chapters.

The author cautions about the possibilities of causing damage to economic performance through pursuance of policies that tend to frustrate the cost-reducing impact of techonological developments involving investment. He cites as an example of such likely damage through the attempt of successive British Governments to keep down the general price level by artificially holding down prices paid by direct consumers at the expense of costs that enter into industrial activity. He refers to the fact that the ratio in the United Kingdom between industrial and domestic prices for coal, electricity and road transport, in the late 1950s, was about twice as high as the ratio prevailing in other major continental countries. It was patent then that the UK was cross subsidising the domestic user as against the industrial user to an exceptional degree. Taking note that the circumstances in which many of the price and investment decisions are reached have altered radically over recent decades, the author goes into the details of some of these circumstances to unravel the truth, to put on a platter and, more particularly, to underscore that a major function of management is "the determination of an investment programme in relation to an appropriate price policy". Whether the entire discretion in this context lies with the management, is, however, a different matter and is somewhat beside the main point here. It is a truism in our country that the management can hardly do much in this respect, the area of discretion being rather limited. The major thrust of the discussion in the book is with reference to what constitutes an appropriate price policy and what are its relations to investment.

Designed as a work on managerial economics, the book has for its audience both students of management and economics as also businessmen concerned with issues of pricing and investment. Though the analysis

presented in the book is theoretically sound and detailed, its value has been much enhanced by the elaborate discussion on steel pricing in the prevailing context of the British economy, affording a comparison of policies and practices in vogue in the USA and, also, in our country. It has much relevance to the pricing and investment phenomena in India, both public and private sectors. Especially, in the Indian iron and steel industry, several knotty problems have remained rather unsolved. This book will help sorting out several such problems involving a good deal of balancing act. to say the least. □

Fundamentals of Industrial Sociology

Pascual Gisbert S.J.
Tata McGraw-Hill Publishing Co. Ltd., New Delhi, pp. 369. Rs. 27.00
Reviewed by J.P. Singh*

The present book is the last of the triology by the author, the earlier two being the *Fundamentals of Sociology* and *Preliterate Man*. The author has intended the present book to be a comprehensive work centred around the socio-industrial realities of India since Independence. Divided in four parts, the book promises an overall view of the fundamental concepts and problems affecting modern industrial society together with relevant theories, researches and experiments.

Part I deals with the nature and growth of industrial sociology. It defines the field of industrial sociology and distinguishes it from other related fields like industrial psychology, economics, personnel management and social welfare. Various phases of industrial development, with referance to ideologies accompanying them, are discussed. A portion is devoted to rise of industry in India. A chapter is allocated to the phenomenon of work as distinguished from art and recreation. The

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section culminates by describing the Hawthorne studies and the rise of industrial sociology as a field of study.

Part II deals with the internal structure of industry and, in the words of the author, is the most central and genuine part of the book. The formal and informal aspects of organisation are discussed at length, besides studying the levels and role relationships in an industry. A chapter each is devoted to three major elements of industrial organisation, namely, the management, the supervisory staff, and the labour. Further, attention is paid to the staff-line relations within the management ranks.

Part III discusses the social context of industry by studying those institutions, organisations and events which form an integral part of industrial society. A full chapter is devoted to the organisation of labour and the origin and development of Trade Unions. Focus is then shifted to collaboration movement between labour and management in Indian context and an examination of the interaction between industry and society.

Part IV introduces the reader to the Ahmedabad Experiments of A.K. Rice, the South Essex Studies of Joan Woodward and the Luton Experiments of Goldthorpe and others. A chapter is devoted to various theories that have dealt with the social problems of industry. Considerable emphasis is laid on what the author calls "congruence approach". The concluding chapter is devoted to a projection into the future affluent society.

The book is well written and the contents are well organised and carefully chosen. The opening statements for each of the four parts, the summaries, the suggestions for further study, and question and problems for study and discussion at the end of each chapter, will be especially useful to students. The section on internal structure of industry is very good. A salient feature of the book is its inclusion of the Ahmedabad, South Essex and Luton experiments. This is an example that more industrial sociologists should follow. The author has taken special care to make the book relevant to Indian context by making frequent references to Indian scene.

However, certain drawbacks of the book must also be highlighted. It seems that the author is somewhat defensive about his field of study,

His comments about the inadequacy of title and real title of the field are rather unnecessary. His distinction that when a worker kicks his machine, we are faced with a psychological phenomenon, but when the same worker is scolded by his supervisor, it becomes a sociological phenomenon, is rather naive and will not find acceptance among psychologists.

A major omission is in the section on the social context of industry. Although the author promises it to be a study of those institutions, organisations and events that form an integral part of industrial society, the focus has been laid on the trade unions and labour movements at the expense of government institutions and various management organisations.

Another drawback is the excessive reliance on secondary sources. When an author quotes *Fortune* 1964 as quoted by *Miller and Form*, 1951 (p. 5) or *Stuart Chase* as quoted by *Miller and Form*, 1951 (p. 54), the researcher has to be careful. Further, the scientific precision of language is not always adhered to. For example, the author states that the workers of Rice's Ahmedabad experiment had been deprived of satisfaction by the "ruthless march of mechanisation and urbanisation". How urbanisation affected the worker dissatisfaction in this experiment, is not clear.

On the whole, the book can be recommended for the undergraduate and graduate students but the teachers and research scholars will find it somewhat wanting. □

Intra–National Transfer of Technology

Asian Productivity Organisation, Tokyo

Available in India through Jaico Publishing House, Bombay. pp. iv+161, 1976

Reviewed by J.V. Bapuraj•

The problem of transfer of technology to small industries, with particular reference to Asian countries, formed the subject of a symposium organised by the Asian Productivity Organisation (APO) in Tokyo from February 24 to 28, 1975. The book contains six papers presented at the symposium, along with a useful summary of the papers. Technology, as Dr. Jack Baranson, President of the Development World Industry and Technology, Washington D. C. points out in his paper, consists of three principal elements, viz., (1) product designs; (2) production techniques and plant layout including blue prints and flow charts, process sheets, fabrication instructions, tool and fixture design and operational procedures, and material specifications; and (3)management systems involving plant design and layout, quality control and testing, materials procurement, inventory control, equipment maintenance and repair, and machine loading technique. After analysing the various aspects of transfer, with reference to four firms as widely located in Japan, Columbia, the U. S.A. and Canada, Dr. Baranson concludes that the time and resources required for enterprise-to-enterprise transfer are largely a function of the following five variables :

(a) The absorptive capabilities of the recipient enterprise (R-factor); (b) the supplier enterprise transfer capabilities (S-factor); (c) the quantum and complexity of what is transferred (T-factor); (d) the mode of technology and the recipient's absorptive capabilities (G-factor).

Dr. Baranson's paper is a model of methodical analysis and conceptual clarity and should serve as a spur to similar studies of the kind he has made of the four firms, in developing countries.

Prof. Keinosuke Ono of the Keio University, Japan, deals with the development of the flatware industry (utensils) in Tsubame city, Japan,

•Director, Office of the Development Commissioner (Small Scale Industries), Ministry of Industry, New Delhi.

where there was a nucleus of only artisans making nails in the 17th century. The introduction of the electrolytic polishing technology, 13-chrome steel and various processing machinery provided the stimulus to the development. Prof. Ono highlights the role of various agencies in promoting the process of transfer – industry associations, academic institutions, the Government (through modernisation laws and financial and fiscal measures), and the prefectural technical centres. "If even one of these principal elements had been missing," he says, "the technological advance of the flatware industry in Tsubame would have been delayed considerably". The story of Tsubame has many lessons for us in regard to the concerted action needed to promote any change in industry in any particular area.

Dr. S. K. Subramanian of India describes the ancillary relations that have been encouraged and developed by Hindustan Machine Tools, Indian Telephone Industries, Bharat Electronics Ltd., Enfield (India) and Escorts. He deplores the tendency to seek economy on costs of production through exploitation of labour, and pleads for a symbiotic relationship between parent and ancillary units. Dr. Subramanium thus looks at the problem of technology transfer in terms of complementarity of large and small firms.

An excellent account of the way small sub-contracting firms were guided and technically upgraded by Nissan Motors Ltd. (turning out one million cars a year) is given by Mr. Junzo Wada, Managing Director of the firm. Mr. Susumu Mishima of the Small and Medium Enterprise Agency of Japan details the Japanese Government measures of assistance for technology transfer and cites the cases of transfer of new mould-making and mound-coating processes to the foundries in Nagano Prefecture.

The book, wich is produced with the usual standard of excellence associated with all APO publications, deserves careful study by all those interested in development of ancillary industries in our country. □

Inflation Accounting Tools and Techniques

P. Chattopadhyay
Institute of Cost and Works Accountants of India, Calcutta, Pages 198, Rs. 45.

Inflation Accounting As Tool To Fight Inflation

Bahadur Murao
Institute of Cost and Works Accountants of India, Calcutta.

Reviewed by N. L. Dhameja*

Accounting as a medium of communication must communicate the operating results to interested parties. In order that the communication is effective and meaningful, it needs to be reoriented in the period of changing economic environment and rising prices. These two books attempt to deal with inflation accounting and the various tools and techniques of inflation accounting and their application to fight inflation.

The first book aims at surveying the present thoughts on the subject in various quarters and in showing the details of conversions of historical costs into current costs, with the object of helping the readers to formulate their own opinion on the subject. The fundamental issues like capital maintenance, concept of capital and depreciation for replacement are discussed during inflationary trends. The difficulties of converting accounting for inflation are also described.

Dr. Chattopadhyay has surveyed the response to inflation accounting in various countries like U.S.A, U.K, Australia and Canada and has portrayed the debates on the subjects by academicians, industry and professionals in ten appendices (appended to chapter 2 of this study). There is said to be mixed response to the need for adjustment of historical accounting to inflation accounting in U.S.A., U.K. and Australia while there is no serious thinking on this subject in India.

*Deputy Director, National Productivity Council, New Delhi.

Four cases have been presented to show that the financiai results after adjustment for inflation are better appraised than the results on historical costs. In the first two case studies—Madras Fertilisers Ltd. and Coromandel Fertilisers Ltd.—full adjustments are made from year to year with various non-monetary and monetary items on the basis of three price indices : GNP Deflator, Whole-sale Price Index, and Consumer price index. The working of these adjustments are given in different cost sheets.

In the latter two cases, the two companies—Carborandum Universal and Ashok Leyland—adopting the partial adjustment process of inflation accounting as a supplement to their Annual Reports have been presented to show that due to adjustment of non-monetary and monetary assets the reported profits have reduced.

According to Dr. Chattopadhyay, partial adjustment for inflation in accounting would tend to mislead both shareholders and the company management with respect to the impact that inflation creates on the value of assets and liabilities, operational cost and sales revenue in varying conditions over time. However, due to simplicity and low cost involved, the partial adjustment may be preferred by management and it does not matter if the process of conversion is logical.

While the first book described above relates to inflation accounting pertaining to an enterprise accounting, the second book aims to develop an inter-disciplinary approach to problems of inflation accounting. The latter is directed towards reorientation of concepts, thought processes and behaviour pattern by managers, administrators, executives and operatives in all walks of life, more particularly, in the matter of accounting, in the peculiar environment of rising prices as well as high level of prices in Indian socio-economic environment. The study emphasises the importance of inflation accounting to enterprise accounting, social accounting and national accounting and states that the decisions at enterprise, social and national levels based on historical cost-based accounting figures may not be appropriate and the object of inflation is severe on capital-intensive industries.

The book by Murao is divided into three parts. The first part deals with the object, scope and methodology and points out the size of the change in price level in Indian economy. Part two of the study discusses a few

case studies of enterprise accounting both from public and private sectors to highlight the effect of inflationary trends with the objective to help development of tools to focus attention on the effect of inflationary trends on operational profits and financial health of enterprise. Partial revaluation accounting on the basis of the average wholesale price indices, rather than complete Revaluation Accounting, is adopted in respect of fixed assets for these case studies.

The net profits so adjusted on the above basis, with an object to keep capital intact indicates that there is wide divergence of operational profits and reported profits in published accounts and this divergence is wide in 1973-74—the year of high inflation rate.

Besides enterprise accounting, the part II discusses the inflation accounting with respect to under-utilisation of capacity, social accounting and national accounting. The effect of inflationary trends on the equitability of distribution of social benefits and national income has to be carefully monitored. The study recommends that it would be interesting to find out by actual case studies in social accounting, the effect of inflationary trends on the net availability of net social benefits, between various regions, zones and economic groups.

Part three refers to various areas where tools of inflation accounting can be applied to arrive at meaningful results. Murao contends that there is a continuous need for deliberate and conscious election of hard choices as distinct from those of soft choices by conscious or unconscious yielding to the temptations for selection of the path of least resistance. In the absence of hard, hitting objective-oriented and performance-oriented outlook, by election of hard choices where necessary, technology of inflation accounting cannot provide adequate administrative management tools to fight inflationary trends.

Technology of inflation accounting should be used for evolution of appropriate managerial and administrative tools for optimisation of productivity (and profitability) by all government departments which function as productivity centres in their capacity as quasi-commercial department. All other government departments not classified as productivity centres should be treated as catalytic agents for attainment of the planned socio-economic national goals. □

The conventional system for computation of productivity in financial and accounting terms should be reoriented towards computation of economic and physical productivity of human, material, capital resources and services on selective basis. The annual reports of companies should also report on the physical productivity in respect of finished and intermediate goods on selective basis.

In all government operations, there is a need of introduction of management by objectives and in our mixed economy, as distinct from west or communist countries, there is a need to provide more realistic measurement of productivity and profitability under the actual socio-economic existing environment for development of appropriate inflation accounting techniques.

According to Murao, application of inflation accounting techniques should help to locate points and transactions of government operations at which profits are earned by individual employees, public servants as also by departmental agencies and organisations of the department without adequate contribution of wealth to the national economy. In order to eliminate unrealism in the policy decisions at the highest level on the basis of the information collected through files due to inflationary tendencies, it is recommended that a senior government empleyee should spend at least a fortnight each year in a selected backward area along with the residents there and should understand their problems.

The primary sector consisting of agriculture, forestry, logging, fishing, contributes about half of the net domestic product. There is an urgent need to develop simple techniques of accounting, relating to primary sector considering the differences in size of farmers, as tools of optimisation of productivity in the sector.

The technology of inflation accounting requires an urgent need for live researches for reorientation of the dynamics of information technology in respect of Management Information System (MIS), Government Information System (GIS), and Public Information System (PIS).

To sum up, Dr. Chattopadhyay's book discusses the process of inflation accounting as applicable to enterprise accounting and presents to the manager and researcher the available literature and reproduces the

same in ten appendices. The treatment of monetary assets is described but is not elucidated in the cases presented. Murao's book is oriented towards *accounting of total welfare* of the human beings and is a comprehensive study on inflation accounting. It raises a number of issues and provides problems to researchers for study.

In short, both the studies discuss the problem of inflation accounting at various levels, and are good guides for researchers and policy makers. But in order to make it handy for management for decision-making, it would require another detailed study. □

Wage System : Its Effective Management

G. K. Suri,
All India Management Association, New Delhi, 1976. pp. 54, Rs. 15.00

Reviewed by P. Chattopadhyay*

Evolving effective management of wage systems has been a thorn in the flesh in many an Indian organisation. While abandonment of piecework system and adoption of time scale in both public and private sectors of the economy have sought to protect the cause of the worker, the rationale of the wage system is yet far from sound in many a case, particularly when one considers the relationship of the wage system with job responsibilities, efficiency, technical skill and occupational hazards. This complication is apart from the multiplying components of the workers' pay packet, partly responding to the external environment, i.e., the ruling prices and partly to the extra pressure on the wage earner in terms of overtime. In many cases, wages have been subject to trade union pressures and in many others to fixation of wage scales by Wage Boards. The picture emerging from all this is anything but clearcut. Suri touches this extremely delicate area of management and deals in this short volume with various issues of everyday importance to both management and the worker in different types of organisations.

*Director (Research), Institute of Cost & Works Accountants of India, Calcutta.

This short exercise is divided into several chapters such as the wage system and its effective management, the pay packet and its rationality, wage linked with productivity, dearness allowance, internal equity, external equity, intrusion of irrational elements in wage structure and trends and guideposts, apart from a short select bibliography.

The author emphasises that there is a growing need for defining and developing the wage and salary administration function in an organisation and determination of its location and manning. For this purpose, he enumerates the functions and responsibilities of a wage and salary administration programme, which are :

(i) formulation of wage and salary plans;

(ii) establishment of criteria for wage determination:

(iii) establishment of job evaluation systems including rating, differentiation and fixation of job standards;

(iv) ascertainment of ongoing rates for jobs in industry/community;

(v) analysis of government wage regulations, company wage policies and agreements with unions to maintain uptodate wage rates;

(vi) making policy recommendations;

(vii) rating employees and recommendation of wage increases;

(viii) establishment of fringe benefit and other supplementary compensations;

(ix) recommendation and administration of plans for wage incentive systems; and

(x) supervision and maintenance of records pertaining to all matters of compensation.

iscussing the rationale of the pay packet, he focusses on important eas of action in a corporate wage policy. In his view, the bulk payments must be linked with the outcome of work, that is, wages ould be linked with productivity. Secondly, he suggests that basic ages must be the predominant element in the pay packet. This may imply erging the bulk of dearness allowance in the basic wage. He suggests closer examination of the nature, pattern, extent and quantum of fringe

benefits. As regards linking wages with productivity, he underlines the need for controlling performance for the wages paid, linking statutory bonus with productivity, wage incentives bonus, introduction of annual improvement factor in collective bargaining, productivity bargaining and developing and in installing wage cost controls.

In the context of internal equity, he deals essentially with job evaluation programmes and the practical ways of introducing such programmes. While his discussion on external equity relates to the industry-wage structure or even interindustry wage structure *vis-a-vis* the company wage structure, his pointer that there exists a data gap is real and requires to be filled in. He cautions that payment methods such as incentives can induce inequalities and destroy the basic wage relationships that might have been established through job evaluation. To ensure a more sound rationale of the wage system, he underlines the need for monitoring, so that irrationalities can be detected in proper time and corrective actions taken.

In a short compass of only 54 pages, the author has been able to give a cogent account of the wage system and its components while taking note of different practical constraints, problems and possibilities. His recommendations deserve serious consideration, particularly in the context of the declaration by our Prime Minister that wages and bonus should be linked with productivity. Managers in public and private sector industry and policy makers should benefit from a perusal of the book. □



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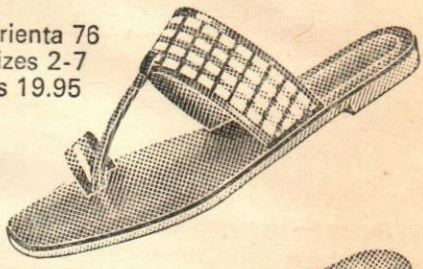

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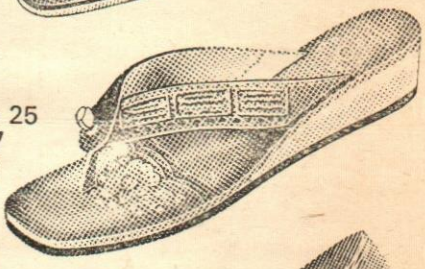

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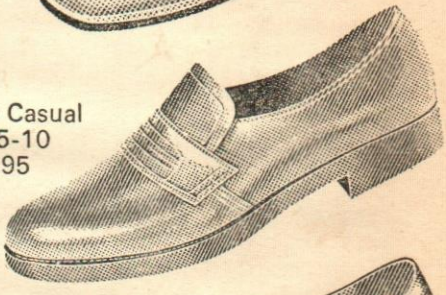

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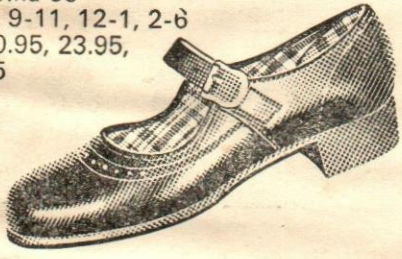

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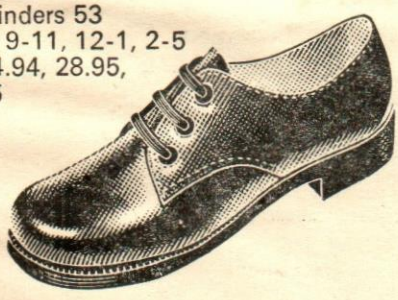

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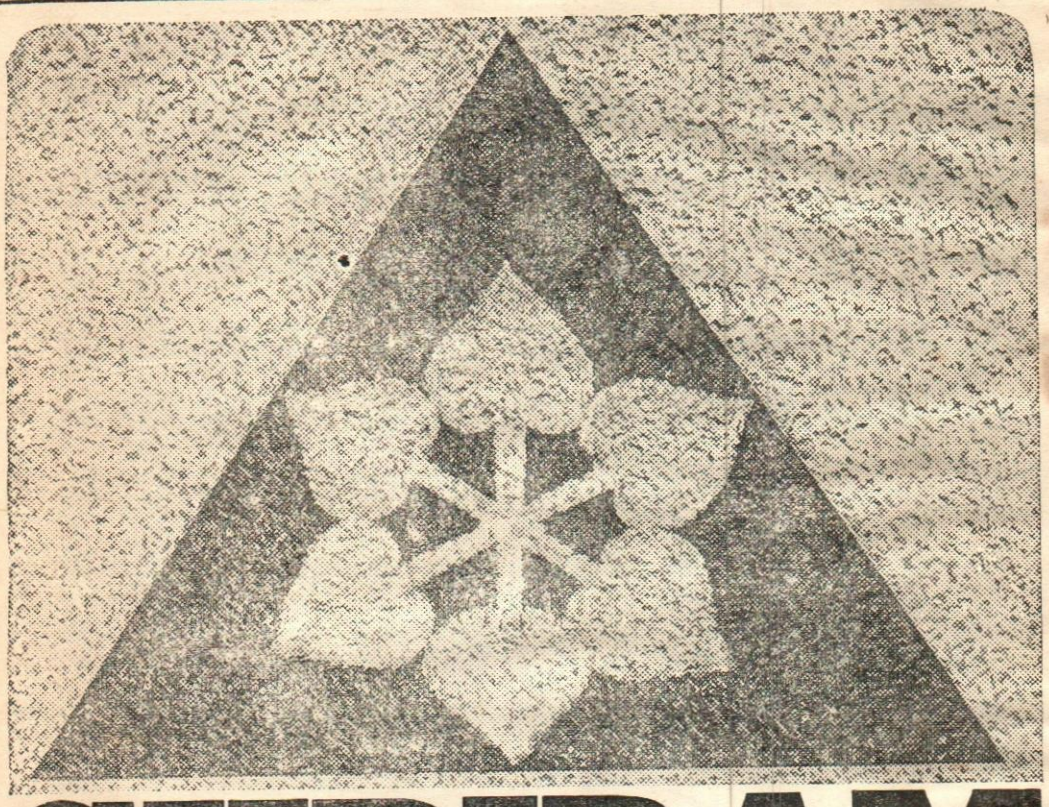

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Table 1 : Contribution of Area, Yield and Their (on Variable Bas

Districts	LUDHIANA				ALIGARH			
Year	Change in Production over the previous year	Change in production due to			Change in Production over the previous year	Change in Production due to		
		Area	Yield	Interaction of Area and Yield		Area	Yield	Interaction of Area and Yield
	$\frac{(P_t-P_o)100}{P_o}$	$\frac{(A_t-A_o)100}{A_o}$	$\frac{(Y_t-Y_o)100}{Y_o}$	$\frac{(A_t-A_o)(Y_t-Y_o)100}{A_o Y_o}$	$\frac{(P_t-P_o)100}{P_o}$	$\frac{(A_t-A_o)100}{A_o}$	$\frac{(Y_t-Y_o)100}{Y_o}$	$\frac{(A_t-A_o)(Y_t-Y^o)100}{A_o Y_o}$
1967-68	1065.02	1260.63	(—) 14.38	(—) 181.23	753.64	1091.88	(—) 28.38	(—) 309.86
1968-69	64.86	88.09	(—) 12.35	(—) 10.88	41.60	53.16	(—) 7.55	(—) 4.01
1969-70	2.36	15.73	(—) 11.55	(—) 1.82	31.52	15.59	13.78	2.15
1970-71	7.62	1.79	5.73	0.10	34.19	16.47	14.35	2.37

Table 2 : Contribution of Area, Yield and Their (on Fixed

1967-68	1065.02	1260.63	(—) 14.38	(—) 181.25	753.64	1091.88	(—) 28.38	(—) 309.86
1968-69	1820.80	2459.26	(—) 24.95	(—) 613.51	1108.76	1725.47	(—) 33.78	(—) 582.93
1969-70	1866.33	2861.95	(—) 33.62	(—) 962.00	1489.71	2010.10	(—) 24.66	(—) 495.73
1970-71	2016.30	2915.09	(—) 29.81	(—) 868.98	2017.17	2357.58	(—) 13.85	(—) 326.56

teraction to Change in Production
Method)

	SHAHABAD			JAMMU		
Change in Production over the previous year	Change in production due to			Change in Production over the previous year	Change in production due to		
	Area	Yield	Interaction of Area and Yield		Area	Yield	Interaction of Area and Yield
$\frac{(P_t-P_o)100}{P_o}$	$\frac{(A_t-A_o)100}{A_o}$	$\frac{(Y_t-Y_o)100}{Y_o}$	$\frac{(A_t-A_o)(Y_t-Y_o)100}{A_o Y_o}$	$\frac{(P_t-P_o)100}{P_o A_o}$	$\frac{(A_t-A_o)100}{A_o}$	$\frac{(Y_t-Y_o)100}{Y_o}$	$\frac{(A_t-A_o)(Y_t-Y_o)100}{A_o Y_o}$
696.87	631.63	8.92	56.32	—	—	—	—
27.10	14.99	10 53	1.58	14.99	12.17	2.51	0.31
4.50	15.43	(—) 9.52	(—) 1.41	( ) 20.52	(—) 4.28	(—) 17.16	0 93
12.64	0.32	12.28	0.04	165.42	103.89	30.18	31.35

teraction to Change in Production
ase Method)

Base : 1966-67

696.87	631.63	8.92	56.32	—	—	—	—
922.78	741.30	20.38	151.09	14.99	12.17	2.51	0.31
957.72	871.12	8.92	77.68	(—) 8.83	7.36	(—) 15.08	(—) 1.11
1091.28	874.12	22.29	194.87	141.99	118.89	10.55	12.55

change in production has been decomposed into contributions of area and yield only. Though they were able to establish the mathematical equality for a single crop case, yet their approach to have yielded erroneous results.

The Narula—Vidyasagar study[9] deduces the following for a change in the production of a single crop, from Minhas--Vaidyanathan's study:

$$P_t - P_o = (Y_t - Y_o)\, A_t + (A_t - A_o)\, Y_o$$

Where change in yield receives the weight of current year area and change in area receives the weight of base year yield.

The term $(Y_t - Y_o)A_t$ is not the effect of change in yield alone, area remaining constant, to call it a yield effect. The term measures the effecet of change in yield over the area containing the change in itsslf. The term $(A_t - A_o)\, Y_o$ can rightly be termed as an area effect. As the sum of $(Y_t - Y_o)\, A_t$ and $(A_t - A_o)\, Y_o$ is equal to $(P_t - P_o)$ in the model, Narula and Vidyasagar's concern was that in the Minhas—Vaidyanathan model damage is being done in suppressing the importance of yield increases in favour of acreage expansion. But it is clear that Minhas and Vaidyanathan do not plead that gains in production are more due to acreage expansion than the spurt in yield and that they do not give any preferential treatment to change in area.

We shall now critically examine the methods used in the Narula—Vidyasagar model. We substitute the values $(P_o + \triangle P_o)$ for P_t, $(Y_o + \triangle Y_o)$ for Y_t and $(A_o + \triangle A_o)$ for A_t. The Minhas—Vidyanathan model as used by Narula and Vidyasagar, then takes the following form :

$$[(P_o + \triangle P_o) - P_o] = [(Y_o + \triangle Y_o) - Y_o]\,(A_o + \triangle A_o) + [(A_o + \triangle A_o) - A_o]\,(Y_o)$$

$$\therefore \triangle P = \triangle Y_o A_o + \triangle Y_o \triangle A_o + \triangle A_o Y_o$$

Rearranging them as $\triangle A_o Y_o + \triangle Y_o A_o + \triangle A_o \triangle Y_o$

9. The study uses average yield ($\bar{Y}$) and not yield per acre (Y). Such mean values have not been used for area. The justification for using such mean values has not been given in the study. Yield figures are, no doubt, obtained on a sample basis, while area figures by complete enumeration method, but use of *average yields* is not clear. For our purpose such averages have been avoided.

these indicate (i) share of area, (ii) share of yield and (iii) share of interaction of changes in area and yield in the change in production.

Even the alternative method considered by Narula and Vidyasagar, i.e., $P_t - P_o = (Y_t - Y_o) A_o + (A_t - A_o) Y_t$ will also yield similar results as shown above.

Substituting again the values of Y_t and A_t in the equation, we get,

$$P_t - P_o = [(Y_o + \triangle Y_o) - Y_o](A_o) + [(A_o + \triangle A_o) - A_o][Y_o + \triangle Y_o]$$

$$= (\triangle Y_o) A_o + \triangle A_o (Y_o + \triangle Y_o)$$

$$= \triangle Y_o A_o + \triangle A_o Y_o + \triangle A_o \triangle Y_o$$

= share of yield + share of area + share of interaction of area and yield.

Since similar objections regarding weights would hold in this method also, Narula and Vidyasagar suggested yet another method to reduce the biases of weights which, according to them, given the 'best' method —'the least bias method'. This method, which uses A_w and Y_w in place of A_o and Y_t used in the alternative method when worked out after substituting the values for A_w and Y_w, shows nothing more than the fact that $P_t - P_o = A_t Y_t - A_o Y_o$. Here again, using such weights, Narula and Vidya Sagar have not been able to provide anything new.

Following the methodology used by ESIA and Ramamurthy, if we substitute the values in the 'least bias' equation, we get

$$P_t - P_o = (Y_t - Y_o) \quad \frac{A_t + A_o}{2} + (A_t - A_o) \quad \frac{(Y_t + Y_o)}{2}$$

$$= \frac{[(Y_o + \Delta Y_o) - Y_o][(A_o + \Delta A_o) + A_o] + [(A_o + \Delta A_o) - A_o][(Y_o + \Delta Y_o) + Y_o]}{2}$$

$$= \frac{(\triangle Y_o)\ (2A_o + \triangle A_o) + (\triangle A_o)\ (2Y_o + \triangle Y_o)}{2}$$

$$= \triangle A_o Y_o + \triangle Y_o A_o + \triangle A_o \triangle Y_o$$

= Share of area + Share of yield + Share of interaction of area and yield.

Even the 'least bias estimate with variable base' used by Narula and Vidyasagar, which obtains various contribution from the identity.

$$P_t - P_{t-1} = \frac{(Y_t - Y_{t-1})(A_t + A_{t-1})}{2} + \frac{(A_t - A_{t-1})(Y_t + Y_{t-1})}{2}$$

also yields nothing more than what is given by the least bias equation as seen below :

$$P_t - P_{t-1} = [(A_t - Y_t - A_t Y_{t-1}) + (A_{t-1} Y_t - A_{t-1} Y_{t-1})]/2$$

$$= 2(A_t Y_t - A_{t-1} Y_{t-1})/2$$

$$= A_t Y_t - A_{t-1} Y_{t-1}$$

Nothing new seems to be discernible from this scheme of decomposition also.

Again in their own methodology, Narula and Vidyasagar have defined the contribution of area and yield to change in crop production in the following manner :

1. *Contribution of Yield :*

(a) $$\frac{100(Y_t - Y_o) A_o}{P_t - P_o}$$

(b) $$\frac{100(Y_t - Y_o)A_t}{P_t - P_o}$$

(c) $$\frac{100(Y_t - Y_o)A_w}{P_t - P_o}$$

2. *Contribution of Area :*

(a) $$\frac{100(A_t - A_o)Y_o}{P_t - P_o}$$

(b) $$\frac{100(A_t - A_o)Y_t}{P_t - P_o}$$

(c) $$\frac{100(A_t - A_o)Y_w}{P_t - P_o}$$

where $A_w = \frac{A_t + A_o}{2}$ and $Y_w = \frac{Y_t + Y_o}{2}$

From (1) and (2) we can have nine sets of combinations of area and yield to change in production. However, we present three sets namely, [1(a)+2(a)]; [1(b)+2(b)]; and [1(c)+2(c)]. These sets, after substituting the values for A_t and Y_t would be :

(i) $$\frac{100(Y_t - Y_o)A_o}{P_t - P_o} + \frac{100(A_t - A_o)Y_o}{P_t - P_o}$$

$$= \frac{100(\triangle Y_o A_o)}{\triangle P_o} + \frac{100(\triangle A_o Y_o)}{\triangle P_o}$$

$$= \frac{100}{\triangle P_o}(\Delta Y_o A_o + \Delta A_o Y_o)$$

Here, the sum is not equal to the sum of all the factors of decomposition as it excludes the values of the interaction of area and yield.

(ii) $$\frac{100(Y_t - Y_o)A_t}{P_t - P_o} + \frac{100(A_t - A_o)Y_t}{P_t - P_o}$$

$$= \frac{[(\triangle Y_o)\ (A_o + \triangle A_o) + (\triangle A_o)(Y_o + \triangle Y_o)]100}{P_o}$$

$$= \frac{[\Delta Y_o A_o + \Delta A_o \Delta Y_o + \Delta A_o Y_o + \Delta A_o \Delta Y_o]100}{P_o}$$

The sum of these factors in this case would be more than 100 percent which is meaningless.

(iii) $$\frac{100(A_t - A_o)A_w}{P_t - P_o} + \frac{100(Y_t - Y_o)Y_w}{P_t - P_o}$$

Substituting first the values for A_w and Y_w we get

$$\frac{100(Y_t - Y_o)(A_t + A_o)}{2(P_t - P_o)} + \frac{100(A_t - A_o)(Y_t + Y_o)}{2(P_t - P_o)}$$

$$= 100/2\triangle P_o[A_t\ Y_t - A_t\ Y_o + A_o Y_t - Y_o A_o + A_t\ Y_t - A_o Y_t + A_t\ Y_o - A_o Y_o]$$

$$= 100/2\Delta P_o[2A_t\ Y_t - 2A_o Y_o]$$

$$= 100/\Delta P_o\ [A_t\ Y_t - A_o Y_e]$$

Now substituting the values for A_t and Y_t in the above equation, we get

$$100/\triangle P_o\ [(A_o + \triangle A_o)\ (Y_o + \triangle Y_o) - A_o Y_o]$$

$$= 100/\Delta P_o\ [\Delta A_o Y_o + \Delta Y_o A_o + \Delta A_o \Delta Y_o]$$

= Percentage contribution of area + percentage contribution of yield + percentage contribution of interaction of area and yield changes.

The decomposition terms of the change in production are correct in the last set, but turn out to be the same as given in ESIA report and Rama-

murthy's study. In all the studies where 'weights' are used, they are based on some economic logic but no such economic logic is given in Narula—Vidya Sagar study. And unless such weights are backed by economic logic, they cease to be meaningful.

Estimates presented in tables 1 and 2 based on the data provided by Narula and Vidya Sagar and on the methodology used in ESIA report and Ramamurthy's study show that the contribution of interaction component is positive and large in some cases. This component, though difficult to interpret, is not altogether barren of interpretative significance. Moreover, for all practical purposes, one cannot neglect its contribution if the values of its contribution are large.[10] The results of our analysis prove that as the values of the interaction component turns out to be non-negligible the term cannot be ignored in the models.

Conclusions

(i) Narula—Vidyasagar approach, as seen earlier, does not examine fully the existing literature.

(ii) Depending on the number of factors of decomposition of production, the values of the factors change. In the three-factor decomposition scheme 'area effect' is not the same as the 'area effect' seen in the case of four-factor decomposition scheme. This point has been illustrated in Ramamurthy's study.

(iii) If we consider change in the production of all crops and its der composition, Minhas—Vaidyanathan approach of either four-facto-decomposition model or the seven-factor model serves the purpose For all crops whose production is homogeneous and so additive,. crop production need not be considered in value terms and the absolute production will serve the purpose. Only when we consider crops whose production cannot be added, we have to consider the value of crop production as it gives the 'additive' property to the crops.

(iv) In the case of change in a single crop, the three-factor decomposition of change in crop production, i. e. change of area, change of

10. Minhas-Vaidyanathan, *op. cit.*, p. 235.

yield and the interaction of changes of area and yield is the best among the decomposition schemes we have.

(v) The decomposition factors of Narula—Vidyasagar methodology, when analysed properly, turn out to be the same three factors as seen in the case of ESIA and Ramamurthy, i. e., area effect, yield effect and interaction effect of area and yield. So the analysis of Narula—Vidyasagar does not add anything new to the existing knowledge on the subject.

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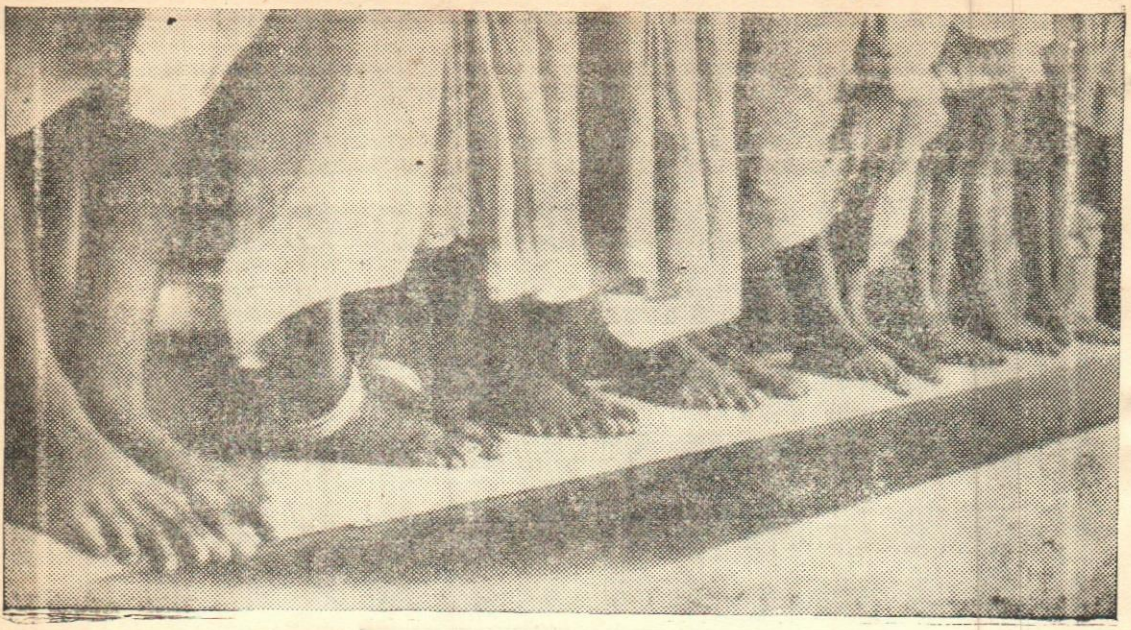

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Productivity, Human Capital Intensity and Stages of Economic Development

Autar Dhesi*

One of the notable impacts of technical progress is on the occupational structure of the labour force with a gradual shift from professions with low skills to professions with high skills. Since it is accompanied by an increase in the number of sophisticated machines in the economy and there is a corresponding hierarchical structure of machines determined by the degree of mechanisation, a similar quantitative and qualitative upward shift in the skill profile of the labour force can be expected. In other words, the magnitude and distribution of human capital is likely to be highly correlated with the structure and the level of development of an economy.[1]

Model

$$X = f(l_1, l_2 \ldots l_n, K) \qquad (I)$$

where

X = Output;

$\sum_{i=1}^{n} l_i = L$ = total labour and l_i denotes the amount of labour of skill category i;

K = capital stock

Production function (I) is assumed to be homogeneous of degree one and can be rewritten as

$$\frac{X}{L} = f\left(\frac{l_1}{L}, \frac{l_2}{L}, \ldots\ldots \frac{l_n}{L}, \frac{K}{L}\right) \qquad (II)$$

Defining $w = \frac{X}{L}$, $k = \frac{K}{L}$,

h(human capital intensity $= \Sigma \gamma_j \frac{l_j}{L}$

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1. Human capital is defined as the 'creative capacity' of man as compared to his physical power, and this capacity, it is assumed, can be enhanced within the framework of the formal educational system as well as outside it.

where $0 \leq \gamma_j \leq 1$, all j

Eq. (II) becomes $w = f(h, k)$ (III)

Differentiating (III) with respect to time

$$\frac{dw}{dt} = \dot{w}, \quad \frac{dh}{dt} = \dot{h}, \quad \frac{dk}{dt} = \dot{k}, \text{ (IV) becomes}$$

$$\dot{w} = \frac{\partial w}{\partial h} \dot{h} + \frac{\partial w}{\partial k} \dot{k} \qquad (V)$$

which can be rewritten as

$$\frac{\dot{w}}{w} = \frac{\partial w}{\partial h} \cdot \frac{h}{w} \cdot \frac{\dot{h}}{h} + \frac{\partial w}{\partial k} \cdot \frac{k}{w} \cdot \frac{\dot{k}}{k} \qquad (VI)$$

Now $\alpha = \frac{\partial w}{\partial h} \cdot \frac{k}{w}$

$=$Elasticity of productivity with respect to human capital intensity.

and $\beta = \frac{\partial w}{\partial k} \cdot \frac{k}{w}$

$=$Elasticity of productivity with respect to physical capital intensity.

By substituting α and β into (VI) we obtain

$$\frac{\dot{w}}{w} = \alpha \frac{\dot{h}}{h} + \beta \frac{\dot{k}}{k} \qquad (VII)$$

In discrete terms (VII) can be rewritten as

$$\frac{\Delta w}{w} = \alpha \frac{\Delta h}{h} + \beta \frac{\Delta k}{k} \qquad (VIII)$$

Some empirical studies have shown the existence of strong multicollinearity between indicators of human and physical capital intensity.[2] Therefore, *a priori*, we expect that most of the variation in w will be explained by the variable h,

$$\text{i.e.,} \quad \frac{\Delta w}{w} = \alpha \frac{\Delta h}{h}$$

For lack of adequate time-series data, we used cross-country data and tested instead, $\Delta w = \alpha \Delta h$ where

$$\Delta h = \sum_{j=1}^{n} \gamma_j \frac{\Delta l}{L}$$

Variables used in Regression Analysis

X_0 = Professional, technical and related workers

X_1 = Administrative, executive and managerial workers

X_2 = Clerical workers

X_3 = Sales workers

X_4 = All others

H_0 = Harbison's composite index of human resources development[3]. It is the arithmetic total of (i) enrolment at second level of education as a percentage of the age-group 15—19 adjusted for length of schooling (ii) enrolment at the third level (higher) education as a percentage of the age-group 20—24 muitiplied by a weight of 5.

2. (a) H. Correa : *The Economics of Human Resources,* Netherlands Economic Institute, Rotherdam, 1962.

   (b) Vladimir Stoikov : *Productivity and the Quality of the Labour Force,* British Journal of Industrial Relations, Vol. 6, 1968.
   Effect of multi-collinearity on the estimated coefficients is as follows :

   $k = ch$ where c is a constant, $w = f(h, k) = hf(l, c) = ch = \frac{c \sum \gamma_j l_j}{L}$

3. Frederick Harbison and C. A. Myers : *Education, Manpower and Economic Growth,* McGraw-Hill, 1964.

Table 1: Results of Regression Analysis[4]

			X_o	X_1	X_2	X_3	X_4	R^2	$\bar{R}^2$	N	D W.
1.	w	18.28	3.4 (0.87)	6.8 (0.81)	1.04 (0.82)	0.23 (0.86)	0.07 (0.55)	0.993	0.985	14	2.3
2.	w	−9.85	3.3 (0.73)	6.7 (0 85)	−1.06 (0.82)			0.993	0.985	14	2.2
3.	w	−1299.05	539.46 (86.238)					0.875	0.875	14	1.99
4.	ln w	5.164	0.243 (0.059)	0.088 (.09)	0.03 (0.05)			0.997	0.889	14	1.29
5.	ln w	5.156	3.3139 (0.03693)					0.926	0.926	14	1.3
			$\ln X_o$	$\ln X_1$	$\ln X_2$			R^2	$\bar{R}^2$		
6.	ln w	4.18	1.37 (0.33)	0 23 (0.24)	0.276 (0.365)			0.998	0.919	14	1.99
			$X'=(X_o+X_1)$								
7.	w	−1337.07	392.356 (25.72)					0.975	0.975	14	1.6
8.	ln w	5.327	0.206 (0.023)					0 932	0.932	14	1.6
			X_o	X_1							
9.	ln w	5.777	0.202 (0.174)	0.362 (0.513)				0.914	0.908	18	2.099
10.		5.913	0.2588 (0.0415)					0.84	0.842	18	2.23
			$X'=(X_o+X_1)$								
11.		5.807	0.214 (0.019)					0.912	0.912	18	2.02
			H_o								
12.	w	−294.974	28.769 (5.344)					0.841	0.841	14	1.255
13.	ln w	6.05244	6.01296 (0.00393)					0.689	0.689	14	0.703

4. Regressions from 1—8 are based on data in Table II and from 9—11 on data in table III.

Table 2 : Occupational Structure of the Labour Force and Output per Worker by Country

Country	*Year*	*Productivity in U.S. $*	X_0	X_1	X_2	X_3	X_4	*Total*
U.S.A.	1960	7,080	10.8	8.3	13.3	8.9	58.7	100
Canada	1961	5,120	9.7	6.3	12.9	8.9	62.1	100
Sweden	1960	3,410	11.6	2.0	8.5	9.5	68.4	100
Norway	1960	2,930	8.1	3.2	7.0	7.6	74.2	100
France	1961	2,820	9.7	2.0	7.1	9.1	72.2	100
U.K.	1961	2,670	8 7	2.7	13.1	9.8	65.3	100
Costa Rica	1963	1,090	5 2	1.3	5.2	8.0	80.2	100
Greece	1961	890	4.0	0.5	3.6	9.8	82.1	100
Peru	1961	740	3 7	1.3	3.3	7.7	84.0	100
Japan	1960	730	4.9	2.3	10.4	10.4	71.8	100
Portugal	1960	660	2.8	1.3	4 5	6.4	85.0	100
Egypt	1960	520	3 2	1.1	3.7	8.2	83.9	109
Korea (Rep, of)	1962	250	2.4	1.3	2.6	8 3	85.5	100
India	1961	160	2.8	0.6	1.6	4.2	90.8	100

Sources : I.L.O. Year Books, U.N. Statistical Year Books.

Table 3 :

Country	*Year*	*Productivity in U.S. $*		X_0	X_1	X_2	X_3	X_4	*Total*
U.S.A.	(1970)	10,959	(1970)	13.2	9.8	16.6	5.9	53.4	100
Canada	(1970)	9,028	(1970)	13.3	9.2	14.2	6.4	54.9	100
Sweden	(1965)	6,629	(1967)	15.3	2.2	9.5	9.3	63.7	100
Switzerland	(1965)	5,015	(1967)	8.9	1.2	13.6	6.8	69.5	100
Denmark	(1965)	4,871	(1967)	9.5	1.6	28.7	8.2	59.5	100
New Zealand	(1966)	4,859	(1967)	10.2	5.9	13.7	8.2	62.0	100
Australia	(1966)	4,847	(1967)	9.3	6.3	14.7	7.7	62.0	100
U. K.	(1966)	3,907	(1967)	9.6	3.1	13.7	9.6	64.0	100
Italy	(1965)	3,309	(1967)	5.3	8.0	11.6	24.8	51.3	100
Ireland	(1966)	2,603	(1967)	7.8	1.3	8.1	9.8	73.0	100
Japan	(1965)	2,059	(1967)	5.5	2.9	12.8	11.6	67.0	100
Libya	(1964)	1,503	(1963)	3.1	1.4	4.8	6.0	84.7	100
Algeria	(1966)	1,111	(1965)	3.4	0.8	3.5	4.5	88.5	100
Iran	(1966)	871	(1967)	2.7	6.1	2.1	6.7	87.8	100
Philippines	(1965)	808	(1967)	3.3	3.2	3.1	6.1	84.3	100
Rep. of Korea	(1966)	497	(1967)	2.6	0.8	3.9	9.8	82.9	100
Pakistan	(1968)	363	(1967)	1.8	0.4	1.3	7.4	89.1	100
Nigeria	(1963)	209	(1963)	2.4	0.2	1.2	15.3	81.9	100

Sources : I.L.O. Year Books, U.N. Statistical Year Books.

Results of regression analysis in Table 1 confirm our hypothesis that there is a significant positive correlation between productivity and human capital intensity and that human capital is mainly embodied in higher professions. Only the coefficients for the first two categories of labour are significant in the linear case and for the first category of labour in the non-linear case. The combined share of the first two categories in the total labour force (X′) performed better as an index of human capital intensity than Harbison's composite index of human resource development. This is probably because Harbison's index accounts for human capital produced only through the educational system. Though there is a strong relationship between occupational and educational profiles of the labour force, recent empirical evidence suggests that entry into various occupations should be considered independently of the variations in years of schooling.[5] The persons who enter into professions with qualifications lower than the average will absorb additional knowledge on the job. Therefore, our indicator encompasses human capital generated on the job as well as that produced through the formal institutions.

Moreover, our index is also a good indicator of effective investment of human capital (it means effective utilisation) while Harbison's index is merely concerned with its production and it does not take into account the fact that due to political and other social reasons, the educational level of the labour force in a society may change in excess of that which is necessary to keep pace with the skill requirements of jobs.[6] In the latter situation, there is a likelihood of redundant human capital in the society. For policy purposes, changes in occupational structure are likely to provide a better index of human capital intensity required at various stages of economic development.

Human Capital Intensity Vis-a-vis Economic Development

Harbison *et al* made a pioneering attempt at constructing various quantitative indicators of human resource development and highlighted a number of conceptual problems.[7] As pointed out by them, there are two basic types of indicators : (a) those which measure a country's stock of

5. Anne Mayhew : *Education, Occupation and Earnings:* Industrial and Labour Relations Review, Vol. 29, No. 2, January, 1971.
6. R Collins : *Functional and Conflict Theories of Educational Stratification in B. R. Cosin* (Ed) : *Education : Structure And Society*, Penguins, 1972.
7. F. Harbison and C.A. Myers : Op. Cit.

human capital, and (b) those which measure the additions to this stock. The first category indicates the level of human resouce development which has been achieved by a country and the second one its rate of human capital formation and its improvement. In both cases, a further distinction is made between those indicators which will be regarded as ideal if data were available and the 'second best' for which data is available.

Ideal Indicators

(1) Levels of Educational Attainment.

(2) The number of persons in relation to the population or labour force, who are in high level occupations.

Second Best Indicators

1. Number of teachers (first and second level) per 10,000 population.

2. Engineers and scientists per 10,000 population.

3. Physicians and dentists per 10,000 population.

4. Pupils enrolled at first-level (primary) education as a percentage of the estimated population aged 5 to 14 inclusive.

5. The adjusted school enrolment ratios for first and second levels combined.

6. Pupils enrolled at second-level education as a percentage of the estimated population aged 15 to 19 inclusive adjusted for length of schooling.

7. Enrolment in third-level (higher) education as a percentage of the age group 20–24.

They found that a composite index based on the last two indicators gave the highest correlation with indicators of the level of development. Obviously, it ignores the human capital production outside the formal educational system. Secondly, it is inadequate if one is interested in approximating the intensity of human capital required at a given level of development as it merely indicates the supply of human capital and not the demand for it.[8]

Additional Index of Human Capital Intensity

It is similar to the second 'ideal' index of Harbison *et al* based on relative shares of the following two categories of workers in the labour force i. e., (i) Professional, technical and related workers, and (ii) Administrative, executive and managerial skills.[9] We have been encouraged to construct this index after finding a high correlation between productivity and these two categories of labour for two sample size belonging to two different periods.

Choice of Countries and Grouping

The choice of countries in the sample was influenced by the availability of data and the effort to have a sample fairly spread on the economic development range. However, the grouping by the level of human capital intensity was arbitrary except keeping in mind the size of each group.

Methodology

First, we regressed productivity (w) on the first two categories of labour using cross-country data :

$$\ln w = 5.777 + 0.202X_0 + 0.361X_1$$

$$(0.174) \quad (0.0513)$$

T. Value 5.77 3.402

$$R^2 = 0.914, \ \bar{R}^2 = 0.908, \ D.W. = 2.099$$

8. One can construct another index of stock of human capital based on expenditure on education, training on the job adjusted for earnings foregone.

9. These are the first two of the five categories according to which I.L.O. classifies labour force.

The predicted values of $l_n w$ from the above equation were regressed on X_o and X_1 to give

$$l_n w = 5.777 + 0.20184X_o + 0.17518X_1$$

	(.00018)	(.00025)
T value	1143.115	701.115

$R^2 = 1.0$, $\bar{R}^2 = 1.0$

Standard error of estimate adjusted for DiF=0·003.

The net (partial) regression coefficients (b's) are simply weights expressing the relative influence of the independent variable. The actual comparative importance of each independent variable was obtained by converting the b's into beta coefficients which recognise the dissimilarity of the units of variables and their variances. Beta coefficients (βs) can be shown as the straight-forward regression coefficients of the standardised variables[10].

$$\beta_i = \frac{b_i \ \delta X_i}{\delta w'}$$

	Standard deviation δ
w'	1.291
X_o	4.592
X_1	3.2215

indicator	*Beta Coefficient*	*Percent of Total weight of Betas*
X_o	0.717	61.9
X_1	0.440	38.1

The index of human capital intensity (H) is calculated by using the following relationship for 39 countries*

$$(0.717X_o + 0.44X_1) \times 1000$$

10. (i) A. Goldberger : *Econometric Theory*, pp. 197–8.

(ii) Ajmer Singh : *The Local Business Activity Index : Its Construction and Uses*, Journal of Regional Science, Vol. 7, Summer 1967, No. 1.

*For countries in the sample and groups, values of Index see Appendix I.

Relationship between Our Index of Human Capital Intensity (H_i) and Indices of Economic Development.

Table 4

	H_i	Y_1	Y_2
H_i	1.0	0,9175	—0.8464
Y_1		1.0	—0.7484
Y_2			1·0

Correlation Matrix

H_i = Index of Human Capital Intensity as constructed above
Y_1 = G.N.P. per capita
Y_2 = Percentage of total labour in agriculture

$$H_i = 378.864 + 0.249Y_1 - 3.753Y_2$$
$$(0.03) \quad (0.823)$$
$$t \quad 8.117 \quad -4.56$$

D.W. = 1.609, N = 39, $R^2 = 0.949$, $\bar{R}^2 = 0.947$

The Use of Harbison's Composite Index (H_b) gave the following results :

Table 5

	H_b	Y_1	Y_2
H_b	1.0	0.784259	—0.62478
Y_1		1.0	—0.7799
Y_2			1.0

Correlation Matrix

$$H_b = 20.58826 + 0.06084Y_1 - 0.0744Y_2$$
$$(0.0159 \quad 0.04418)$$

$R^2 = 0.785$, $\bar{R}^2 = 0{\cdot}775$
N = 28, D.W. = 1.795

Table 6 : Indicators of Human Capital Intensity and Economic Development

No. of Countries	11	10	9	9	39
Group	I	II	III	IV	$\frac{IV}{I}$
H_i	154.4	270.8	407.2	672.1	4.35
Y_1	156.82	314.4	543.45	1319.9	8.4
Y_2	63.52	45.53	31.0	16.66	0.262

Table 7 : Arithmetic Means by Level of Human Capital Intensity

No. of Countries	8	12	8	28
Level	I	II & III	IV	$\frac{IV}{I}$
H_b	30.187	35.96	115.57	3.8
Y_1	152.12	359.58	1380.5	9.06
Y_2	62.775	42.77	15.89	0.253

Significant Statistical Relationships

There is a very high positive correlation between H_i and G. N. P. per capita (0.91) and a high negative correlation between H_i and the percentage of labour force engaged in agriculture (—0.84) as expected. These values are higher than those given by the relationship between H_b and the indicators of level of development in our sample (see table 5) as well as those calculated by Harbison[11]. The data in table 6 shows that H_i in the average country from group I to group IV increases half as fast as G. N. P. per capita. Apparently, the result seems to be contrary to what Harbison *et al* found. Their calculations showed that the composite index

11. Harbison *et al* (op.cit) found a positive correlation between composite index of human resource development (H_b) and G.N.P. per capita (0.888) and a negative correlation between H_b and the percentage of active population engaged in agriculture equal to—0.814. Their sample size was 75 countries.

increases 3 times as fast as G.N.P. per capita from level I to level IV. This anomaly can be explained probably by the differences in sample sizes and the grouping of these countries. This view seems to have support in results obtained by using H_b and a smaller number of countries (see table 7). Alternatively, one may try to explain the different results in terms of conceptual divergences in the construction of the two indices. Harbison's composite index deals with production of human capital including the part which may never be used as well as the element of consumption of human capital, whereas our index is mainly concerned with human capital which is effectively utilised or invested.

The data also indicates that the highest rates of human capital intensity should be made in levels I and III in contrast to Harbison's results which indicate these in levels I and II.

These differences in emphasis which these two indices imply at different levels of development may arise due to differences in sample sizes and the element of arbitrariness in grouping the countries. But we can put forward some plausible economic arguments to explain our results. In group I, countries embarking on the road of development start almost from scratch. Programmes of universal primary education, public health and other public works which are prerequisites for initiating the process of development will create a rapid increase in demand for human capital. However, there is no inherent reason why this should continue increasing at the same rate except if these countries try to develop their own technology. For countries at level II, the technological gap is wide enough to depend on imported technology almost completely rather than create their own. But in group III, an average country may find difficulties in acquiring the required technology abroad such that it may have to create its own which may explain an increased rate of human capital intensity in this group. The difficulties in acquiring technology may arise due to donor's reluctance to disclose technical know-how to potential competitors. Generally, technically advanced firms are more willing to disclose technical know-how to less-sophisticated partners in developing countries than they are to industrially advanced firms, which may eventually become serious commercial rivals in third markets.[12] Transfer of technology among industrially advanced partners does take place but usually on a reciprocal basis.

12. Jack Baranson : *Technology Transfer Through the International Firm*, A.E.R., Papers and Proceedings, May, 1970.

Appendix I

H_i = Index of Human Resource Development as developed in this paper

H_b = Harbison's composite Index of Human Resource Development

Y_1 = G. N. P. per capita

Y_2 = % of labour in agriculture

Country	H_i	H_b	Y_2	Y_1
Thailand (1960)	88.9	35.1	82.0	94 (1963)
Angola (1960)	89.52		69.0	170 (1963)
Pakistan (1961)	101	25.2	75.0	78 (1960)
Liberia (1962)	130.47	4.1	80.9	164 (1963)
India (1961)	143.33	35.2	72.9	70 (1960)
Ghana (1960)	155.23	23.15	58.0	182 (1960)
Syria (1960)	159.04		46.6	203 (1963)
South Korea (1961)	179.04	55.0	52.6	146 (1960)
Morocco (1960)	189.99		56.3	135 (1960)
Malaysia (1957)	227.61	23.65	57.5	356 (1958)
U.A.R. (1960)	233.8	40.1	56.6	127 (1960)
Level I				
Greece (1961)	237.13	48.5	53.9	440 (1961)
Jamaica (1960)	248.09	26.8	36.1	363 (1960)
Guyana (1960)	248.09		34.2	265 (1960)
Mexico (1960)	257.64	33.0	54.2	315 (1960)
Peru (1961)	261.42	30.2	49.7	191 (1960)
South Africa (1960)	268.56	40.0	29.5	387 (1960)
Cyprus (1960)	282.39		40.3	496 (1960)
Paraguay (1960)	287.86	22.7	54.7	149 (1960)
Spain (1960)	291.89	39.6	41.3	317 (1960)
Dominican Republic (1960)	324.76	14.5	61.4	221 (1960)
Level II				

Country	H_i	H_b	Y_2	Y_1
Brazil (1960)	355.72	20.9	44.2	90 (1960)
Panama (1960)	358.56		46.2	349 (1960)
Italy (1961)	367.6	56.8	28.3	738 (1961)
Barbados (1960)	370.47		24.3	330 (1960)
Chile (1960)	375.7	51.2	27.7	245 (1960)
Venezuela (1961)	385.94	47.3	32.3	859 (1960)
Brunei (1960)	478.55		33.5	973 (1963)
Iceland (1960)	479.98		22.9	616 (1960)
Trinidad (1961)	509.98		19.9	691 (1960)
Level III				
Argentina (1960)	532.34	82.0	17.8	531 (1963)
Austria (1961)	554.27		22.8	835 (1961)
Finland (1960)	568.54	88.7	35.5	1001 (1960)
W. Germany (1961)	580.54	85.8	13.4	
Belgium (1961)	594.26	123.6	7.2	1126 (1960)
Norway (1960)	617.12	73.6	19.5	1093 (1960)
France (1962)	682.4	707.8	15.1	1570 (1963)
Canada (1961)	949.51	101.6	12.1	1870 (1960)
U.S.A. (1960)	969.51	261.3	6.5	2559 (1960)
Level IV				

Sources : U.N. Statistical Year Books, I.L.O. Year Books, Harbison *et al*, op. cit.

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Ergonomics : Its Impact on Productivity

P. V. Kulkarni*

Importance of human factor in production need not be overemphasised. Even automation cannot by itself reduce significance of human factor in production, though it may imply a switchover from unskilled to skilled labour component. Ergonomics plays vital role in enhancing productivity. It maximises the output potential of labour component. Impact of ergonomics on productivity is indeed significant and it would be interesting and worthwhile studying it in detail.

What is Ergonomics ?

Ergonomics is primarily a research discipline. It is a relatively new science which has developed from biological sciences.[1] E. F. L. Erech defines ergonomics as a scientific study of relationship between man and his working environment and a convenient grouping of relevent research in independent disciplines of functional anatomy, applied human physiology and applied psychology.[2] J. A. Larkin considers it to be an inter-disciplinary science involving functional anatomy, anthropometry, physiology, physics and engineering which provide information that cannot be ignored by work study personnel.[3] He further observes that this sphere of scientific research explores demands that can arise from working environment and capacities of peoples to meet these demands.[4]

The International Labour Office defines ergonomics as an application of human biological sciences in conjunction with engineering sciences to worker and his working environment so as to obtain maximum satisfac-

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1. Alan Fields, *"Method Study"*, Cassell Management Studies, London, 1969, p. 97.
2. *Op. Cit, "The Principles and Practice of Management"*, London, 1966, p. 604.
3. *Op. Cit, "Work Study, Theory and Practice"*, New Delhi, p. 13.
4. *Ibid.*, p. 12

tion for worker which, at the same time, would enhance productivity.[5] This definition seems to be more interesting, as it lays emphasis on operator satisfaction. It contributes that productivity must follow as essential corollary to operator satisfaction. Sir Wilfrid Le Gros Clark observes that man and machine may be regarded as a functional unit of industry and the aim of ergonomics is perfection of this unit so as to promote accuracy and speed of operation and ensure minimum fatigue. It is towards this end that physiologists, psychologists, anatomists, engineers and bio-metricians are converging their attention.[6] J. D. Radford and D. B. Richardson consider ergonomics as something associated with work study which brings out relationship of man to his work and environment.[7] They further observe that it is a study of relationship of people and their working environment.[8]

Thus, ergonomics is, in essence, a non-manufacturing function. Nevertheless, it sets out relationship of man to his working environment. It is true that, left to itself, it does not produce anything. However, if properly exploited as an indispensable function in industry, it is capable of producing significant results.

From this point of view, ergonomics has largely arrested the attention of method study experts. Ergonomics can be split up into two words—"ergo" meaning work and "nomos" meaning natural laws. As such, it is popular for its laws relating to work. It is extensively and widely adopted in industrial management and occupies a definite place in industry particularly in advancing patterns of business administration. It is that dimension of work study technique which aims at fitting the work to man and motivating man to work. The intention behind application of this technique is to get the "whole" man out of him. It follows, therefore, that work environment requires to be re-adjusted so as to suit him and meet his physical and mental capacities and limitations.

It may also be recalled here that ergonomics, with a more resounding title, is different more in name than in substance or approach from early

5. Cited by Krish Pennathur in *"Method Study"*, National Productivity Council, New Delhi, 1967. p. 24.
6. Quoted by S. Dalela in *"Elements of Work Study"*, Delhi, 1971, p. 279.
7. *Op. Cit, "The Management of Production"*, London, 1972, p. 8.
8. *Ibid*, p. 127.

studies of impact of nature and environment on man's capacity to work.[9] It would be absurd to suggest that, before the term ergonomics was coined, those engaged in the organisation of human work were unaware of basic disciplines in these biological sciences. On the contrary, many of the principles can be classified as "common sense" rather than as part of scientific discipline.[10] Krish Pennathur also observes that birth of separate discipline under a distinct name does not signify that knowledge pertaining to that field did not exist before. What obtains now is the concept of a combined approach by specialists in these fields. With the need for full-time research, ergonomics has merely led to the evolution of a new scientific discipline.[11]

It would not serve much purpose to go into controversy about the origin of ergonomics. If we carefully probe into F. W. Taylor's scientific management, we find that ergonomics has been duly considered and applied in shop management, although this terminology was till then not in vogue. Taylor's warning to the employer not to subordinate man to machine or overburden worker with initiative, as also to the worker not to segregate his interest from that of the employer were but an indirect expression for ergonomic considerations. By a clear-cut departmentation of operational areas to foremen, by separating planning from doing and by prescribing incentives for wage payment, Taylor encouraged workers to concentrate on production instead of bothering over other things. He thus provided, in what may be called "his sermons" the necessary adjuncts to man-machine responsibility and enhanced productivity.

Thus, basically the earliest application of ergonomics in a systematic manner can be traced to F. W. Taylor. Many of his experiments, however, were primarily conducted for developing the optimum design of equipment for specific types of work. The later advance was made by the enunciation of principles of motion economy by Frank Gilbreth. Advances in experimental physiology, psychology and method study have made possible detailed investigation of the human body and mind to work.[12]

9. E. F. L. Brech *et al*, *Op. Cit*, p. 604.
10. *Ibid*.
11. *Op. Cit.*, p, 23.
12. Krish Pennathur, *Op. Cit.*. p. 24.

Moreover, as a combined discipline blended out of basic information from specialised faculties like anatomy, anthropometry, physiology, psychology and so on, it is relied upon as thorough and realistic. Anatomy highlights on body structure, anthropology on body size and physiology on body functioning. Psychology, at their apex, explains an overall nervous system and interprets into the dictums of human behaviour.

It shoud be remembered that the scope of ergonomics is more comprehensive than the study of plant layout problems. It uses a systems approach and considers operator, machine, work place and environment as an integrated system.[13] It covers anthropometry to measure man's physical dimensions, determines his physical, aural and visual capabilities and limitations, measures influence of autonomic nerves and kinaesthetic senses on his ability to work and to receive and process information from his environment.[14] Anthropometry helps ergonomists to find out the area of the easiest reach for the operator.

Alan Fields discovers that the range of clearest vision covers an angle of 30° on each side of centre line at right angles to the eyes and of 10° above and 45° below eye level.[15] The kinaesthetic sense which the operator develops enables him to carry out blind positioning movements.[16] Ergonomics is a systematic research with which techniques of functional anatomy and physiology are applied to physical problems of human work and those of psychology to mental problems of work and a study of environmental conditions is undertaken.[17]

The various streamlines entering ergonomics make it so enriched that they enforce its acceptance for an entire range of human activities. Krish Pennathur observes that ergonomics is applicable at home, on land, on the high seas, in the air and even in the space. It is the promoter of the catalyst work study which activates in the management a restless urge to improve.[18] Ergonomics as a research discipline probably resembles scientific management of F. W. Taylor which suggests that its funda-

13. Alan Fields, *Op. Cit.*, p. 97.
14. *Ibid.* p. 98.
15. *Ibid.* p. 101.
16. *Ibid.* p. 104.
17. E.F.L. Brech & Others, *Op. Cit.*, p. 605.
18. *Op. Cit.* p. 27.

mental principles are applicable extensively to all kinds of human activities ranging from our simplest individual acts to the work of great corporations and can be applied with force to all social activities.[19] Ergonomics enfolds a study of immediate and general working environments. Even organisational matters like measurement of enegy expenditure, fatigue, inspection etc., can also be duly reckoned with under ergonomic considerations.[20]

Man-Machine Relationship

Ergonomics is also known as "human engineering". It adapts work environment to human body as a component in effective work accomplishment by placing all machine controls within operator's normal reach working area such as letting him sit on the job, using mechanised handling on and between processing points, eliminating job safety hazards and making sure that overall conditions are good.[21]

Man works with machine, developing understanding for the latter. Man-machine system is the function unit of industry and ergonomics strives hard to build up an integrated work unit. Machine designed layout, ability and motivation of man, physical factory environment, psychological human complexes, etc., do have a positive interaction in determining man-machine relationship. Extreme heat or cold, poor lighting, excessive noise and vibration, inaccessible machine controls, prolonged muscular contractions and, above all, psychological stresses and strains are good instances of "have-nots" in administering man-machine harmony. Psychological environments easily override physical environments and greater productivity is obtainable from a happy group of workers working under deplorable conditions than could be obtained from an unhappy. group working in near-perfect conditions.[22]

Conflicting relationship between man and machine may invite fatigue, accident hazards, machine breakdowns, prolonged production runs, production losses, sacrificing customer-service standards, loss of cus-

19. *Op. Cit*, "*Scientific Management*", London, 1964, in "*The Principles of Scientific Management*", pp. 7-8.
20. Alan Fields. *Op. Cit.* p. 98.
21. H. N. Broom, "*Production Management*," Richard D. Irwin-Inc., p. 384.
22. J. D. Radford & D. B. Richardson, *Op. Cit*, p. 130.

tomer goodwill and so on and may even provoke situations of indutrial unrest. Machines and working conditions must be adjusted to capacities and health requirement of human body. Unhealthy stresses in forces to be exerted and postures to be taken put a heavy premium on effort and vigilance. J. A. Larkin observed that an ill-adjusted man-machine environment situation results in losses caused by industrial fatigue, industrial disabilities, accidental deaths etc.[23]

In this connection, it will be appropriate to recall the observations of Leon C. Megginson. While explaining how men and machines are complementary, he discovered that machines serve men as tools and as production systems. Use of unmanned machines as complete production system poses a difficult problem. Human support for machines is essential, until machines are more-nearly perfected than at present. Some members of the human race will have to be used and will continue to be needed. Machines are merely adjuncts to people. They are still a means to an end rather than an end in themselves.[24] When man uses machine, he and the machine form a control loop. Man receives information, processes it and takes necessary action with controls, until the required result has been achieved.[25]

In the design and development of any particular system, it is necessary to optimise man, machine, task as a whole or as an integrated part of the system with proper co-ordination to product itself.[25] In the context of exploding technological revolution, Leon C. Megginson observed that it is important to understand relationship between new technological revolution and culture in which it is occurring. Both are immediate and powerful determinants of human behaviour. Man must adjust to this new environment, just as he has been forced to adopt himself to changes in other physical and social environments of the past. Those who cannot make orderly adjustment may not survive. New organisational relationships and different motivational techniques will be required to satisfy changed relationship resulting from sense of insecurity, isolation and centralisation.[27]

23. *Op. Cit.* pp. 12-13.
24. *Op. Cit.* "*Personnel : A Behavioural Approach to Administration*", Homewood, Illinois, 1967, pp. 133-34.
25. J. D. Radford & D. B. Richardson, *Op. Cit.* p. 128.
26. S. Dalela, *Op. Cit.*, p. 280.
27. *Op. Cit.* pp. 35-36.

As machines become more complex, it is more necessary to think of operator and machine as parts of one unit whose combined effectiveness is dependant on each individual and on interaction of each upon the other. Operator and machine must perform as a closed loop system.[28] Ergonomists have carried out studies on ability of various types of instrument displays to convey information accurately to the user and on designs of controls which enable operator to use equipment without error so that, together, operator, machine, its information display and controls would form an integrated whole.[29] In this connection, it will be worthwhile to draw attention to the "Cranfield man" of the ergonomic laboratory of the College of Aeronautics, Cranfield. The Cranfield man with specific height, shoulder width, elbow height and arm span is found to be particularly suitable to operate lathes from a central position.[30]

In an ergonomic investigation of a work system, an analysis is based upon check-lists following a broad classification like attitude and aptitude, human characteristics, working condition and environment.[31] Work place must enable smooth performance of a job. Gilberth gave a set of rules under "principles of motion economy", whereas Ralph M. Barnes gave a few characteristics of easy movements. Range of movement, area of easy vision, maximum lifting capcity of men and their effect on position of machine controls could thus be calculated.[32] However, the work of Gilberth and his successors is only a particular aspect of ergonomics.[33] A work study officer has to examine process chart critically so as to know a group of therbligs with characteristics which, when incorporated in methods adopted, make for easier working.

Research in ergonomics indicates that principles of minimum, simultaneous, symmetrical, natural, rhythmical, habitual and continuous movements are reasonably well-founded, provided they are accepted with certain qualifications.[34] A work study man must know practical ergonomics.[35]

28. Alan Fields, *Op. Cit.* p. 101.
29. *Ibid.* pp. 107-108.
30. *Ibid.* pp, 98-99.
31. For a detailed discussion of check-lists, consult Krish Pennathur, *Op, Cit.* p. 26.
32. Alan Fields, *Op. Cit.* p. 97.
33. *Ibid.* p. 98.
34. J. A. Larkin, *Op. Cit.* p. 82.
35. For a detailed discussion, *Ibid.* pp. 81-83.

One specialised form of charting multiple activities is man-machine chart. Two columns of therbligs are plotted to a common time scale, one concerning machine and the other concerning man's activities, thereby showing relationship between operator activity and machine or equipment utilisation, when a task is dependent on both operator and machine.[36]

A Scientific Discipline

Importance of ergonomics as scientific discipline is growing with mechanisation as indispensable strategy for survival. A more capable, versatile and complex equipment has emerged as essential corollary to technological advances. However, for its effective performance, human element will have to be matched with machine element. Ergonomics may be described as a double edged tool. At one edge remains maximum human satisfaction and, at the other, enhanced productivity. Both edges are sharpened by each other. Contribution of ergonomics is of direct significance to industry in cutting out optimum working methods. Production engineer and work study expert are main beneficiaries of this discipline.

Distinction between ergonomics and work study is arbitrary and one of degree. In no sense are they contradictory.[37] While work study aims at moral and material betterment of each individual and, therefore, of the community, ergonomics provides facts for evaluation of the means of making this aim a live reality.[38] Both work study and ergonomics are concerned with fitting job to worker.[39] Ergonomics approaches problems from opposite direction to that of work study. It argues that machines and workplaces should be designed around capabilities of man. Work study solution to problems of human efforts is likely to be sub-optimisation of the ergonomic answer.[40]

It will be interesting to recall here the observations of Keith Davis who discovered that one way of reducing man's dislike for assembly lines and

36. *Ibid* p. 79
37. E.F.L. Brech and others, *Op. Cit.* p. 605.
38. Krish Pennathur, *Op. Cit.*. p. 27.
39. J. A. Larkin, *Op. Cit.*, p. 13.
40. Alan Fields, *Op. Cit.*, p. 97.

other machine operations is ergonomics. There was a time when ergonomics meant to many persons a synonym for "human relations" Finally, it was recognised that people cannot be engineered and the term was restricted to mean a design and a way out of equipment and processes to make machine and man a more integrated work unit. This helps operator and machine work together with less human fatigue, error and conflict.[41]

"Human Engineering" in man-machine system was developed as one of the programmes by industrial psychologists during the second World War.[42] This is a well-conceived research discipline which has been immensely made use of in western corporations. It appears, however, that Indian corporations have not as yet been attracted to it in a large measure. The reasons, therefore, can be traced to a peculiar situation obtaining in the country, in as much as use of versatile, complex, highly-sophisticated equipment is restricted to handfull of industrial units. However, to present an onslaught of strikes, lockouts, lay-offs, etc., it is necessary to provide new dimension to problems of industrial relations. The apparent economic discontent behind the outbreak of industrial unrest with big corporations may perhaps be a sick man in disguise and the real reasons for such a phenomenon may not be far to seek. Under the circumstances, it will be worthwhile undertaking a searching analysis of ergonomic considerations, which will, in all probability, enable our managements to reach the principal object of maximum prosperity for employer and employee which is supposed to be the most cherished goal of scientific management. From this specific point of view, it is high time we develop ergonomic techniques in our country so as to enhance our productivity and help accomplish our national goals.

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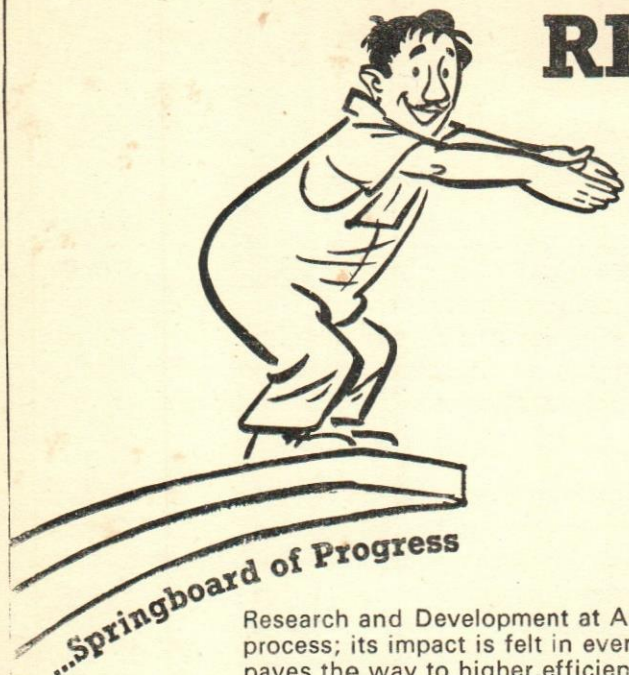
41. *Op. Cit.* "*Human Relations at Work*, "*The Dynamics of Organisational Behaviour,*" Delhi, 1967, p. 460.

42. Leon C. Megginson, *Op. Cit.* pp. 44-45.

RESEARCH



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Productivity Enlargement in Jobbing and Mixed Quantity Production by Group Technology

Narendra Nangea* **Ravi Choudry*** **Om Nangia****

Group Technology (GT) can be simply defined as "the logical arrangement and sequence of all facets of company operation in order to bring benefits of mass production techniques to jobbing or mixed quantity production and obtain greater productivity". Originally the concept of group technology was conceived by some of the industrial units in U.K. by grouping a few components and machines to overcome specific problems on the shop floor and thereby getting greater production from machines. However, the most modern concept of group technology is to implement it to the entire system, i.e., from system to individual components rather than moving from individual machines and components to entire system. Significant benefits in terms of higher productivity can be achieved through the application of the modern concept of group technology.

Group technology is no more a piece-meal subject or practice. To be effective, it must be concerned with all facets of business. It can be said that Group Technology is perhaps the only management technique which embraces all other known management techniques.

Need for Group Technology

Following are some of the advantages of group technology that can accrue to various industrial units specially those working on jobbing production :

(i) GT provides for total integration of effort in conformity with a plan and a well-defined way of carrying out that plan, and hence create an environment that brings out latent talents that remain unknown otherwise.

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(ii) It creates facilities for providing accurate information for delivery dates and to keep those dates.

(iii) It provides a coded system for identification of all parts, assemblies and products.

(iv) It reduces stocks and work-in-progress to a minimum.

(v) It institutes tight control on all materials movement and recording.

(vi) It facilitates the shortest through-put times from receipt of orders to despatch.

(vii) It reduces cost of jigs and fixtures.

(viii) It reduces manufacturing cycle to almost fifty percent.

(ix) It minimises the resetting time in machine shop.

(x) With the application of group technology, production is based purely on the sales forecast, and not on Economic order quantity.

Methodology

The first step in the implementation of group technology is to classify, code and group each product, piece part, commodity and raw material.

Even without being aware of classification and coding, almost all manufacturing units have some method of identification of the products, piece parts, commodities and raw materials. These methods consist of identifiying each component or product either by full description in words or by numbers. These methods may be satisfactory for a factory manufacturing a few product but for a large factory, identification becomes rather difficult as the raw materials, products, piece parts commodities increase beyond controllable numbers. For any new product which is demanded by the consumers, drawings are made, specifications listed and product given new numerical number or description for identification. It also means making new planning and operation sheets, patterns, core boxes, tools, jigs & fixtures, gauges, stores space, and relevant records in practically all departments of the factory.

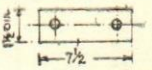
The idea of an alternative system for classification and coding was thus conceived, taking into consideration the above requirements. This system was of significant number i.e., coding and classification.

The code can be understood as simply a symbol representing an element in a pre-conceived systematic plan. Their classification provides means for a methodical concept of grouping them by their similarities and separating them by their differences. For example, in any factory engaged in production, classification could be done as under :-

(a)	Ideas	—Class 0
(b)	Materials	—Class I
(c)	Commodities—	
	(i) manufactured items not to design	—Class II
	(ii) components to design	—Class III
	(iii) product to design	—Class IV
(d)	Tools	—Class V
(e)	Machines	—Class VI
(f)	Building, services	—Class VII
(g)	Scrap	—Class VIII

It also becomes necessary that each part, product, raw material and commodity has a unique drawing having a unique significant number composed of classification and coding. The natural result is the rationalisation of components, products, etc. Hence by simple changes in one or more piece parts and commodities, a new component could be manufactured or a new drawing made to accommodate specifications of two or more parts. This would lead to a great deal of parts being combined and thus reducing the total number of items.

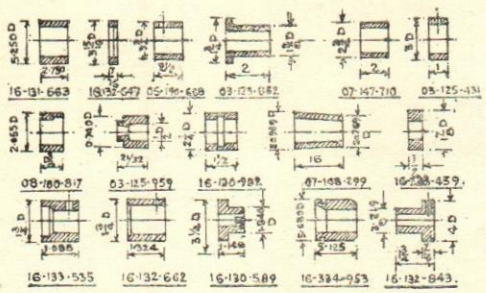
No fresh drawings need then be made until and unless reference is made to those already existing in order to determine whether an existing drawing could be used or a small modification made. This would avoid duplication and savings of a considerable amount of work in various departments of an organisation. A typical example of similar items having different nomenclature and numbers and dissimillar items covered under same name is given in Fig. 1



NAME	DRAWING NUMBER
POST BRAKE PIN	07-46-679.
PLAIN PIN (DRILLED)	71-017-618.
DRAW HEAD PIN.	07-145-750.
SHEAVE PIN.	07-150-116.
LOWER PIVOT PIN	07-131-662.
PLAIN PIN	71-017-875
LATCH PIN	16-132-814.
LEVER PIN	03-124-385.
HINGE PIN	03-124-712.
PIVOT PIN	03-123-117.
PIN	03-124-980
ROD PIN	16-130-303
CLEVIS PIN	16-135-047
PELLETIZER PAN PIN	07-149-231
CABLE COUPLING SHAFT.	07-149-704.
FULCRUM PIN	16-132-813

SIMILAR ITEMS HAVING DIFFERENT NAMES AND NUMBERS

SLEEVES.



DISSIMILAR PARTS CONCEALED UNDER A COMMON NAME.

Fig. 1

As stated above, the first task in planning and implementation of GT is to determine which of the following methods will be most useful for grouping components. The various methods are given as under :

(a) Family formation of components based on rule-of-thumb.

(b) Family formation based on universal component classification i.e., Opitz system.

(c) Family formation based on tailor-made component classification (monocode) including additional tailor-made production feature information (Polycode) i.e. Brisch System.

(d) Production flow analysis as expounded by Professor J.L. Burbidge.

(e) Four-Digit Code from Czechoslovakia.

The above methods of family formation except the code from Czechoslovakia have been physically implemented in various industries in U. K. and these methods have been analysed by researchers. They have examined the selective merits, deficiencies in ideas and concepts of various methods. The explanation of each method and its merits and defieiencies are discussed in the following paragraphs.

Family Formation Based on Rule-of-Thumb

This method of family formation is based on rule-of-thumb by having local product knowledge being produced in a factory. This method can be employed by young junior managers to classify components which are being manufactured by a section of machine shop he is working in. No doubt, he will be able to achieve greater output from some machines in the short run by rule-of-thumb in a hope to sell GT to higher management. But this method has little or no impact on total company operation. On the contrary it might even prevent top management from moving towards an overall approach, because they could believe that GT has already been established. This method may, therefore, be used to overcome some specific problems on the shop floor but should be discounted if an overall approach is to be made to the introduction of GT.

Opitz System

This system uses universal component classification as created by Professor *Opitz* at Aachen. This system maintains that in all engineering factories the percentage of round parts to non-round parts is roughly similar irrespective of what its products are. This system looks at the geometry of a component rather more from the point of view of the way it will be manufactured. This system was created not keeping in mind the group technology. It was used in analysis of a large number of components to find the capacities of machine tools which logically should be most in demand.

One merit of Opitz system is near independent significance of each

digit which makes it easier to learn and simplifies the section of families out of a long list of component codes. Hence the classification in Opitz system is carried out by members or employees of the company who interpret pre-determined rules.

It is normally felt that Opitz system of classification cost nothing or is inexpensive as compared to the costly Brisch system which will be discussed later. However, it is a mixed blessing in the sense that though it is cheaper and easier, a company could get into trouble with an inexperienced attempt at applying it. Also the fact that investment in personnel required to code by this method does cost something.

Brisch System

This method or system of component classification is a tailor-made approach as represented by Professor Brisch. The philosophy behind this system is that the products and, therefore, the components of every engineering company are often quite different. This means that component classification should be designed to cater specifically for each factory. This classification is known as Mono-code. It is essentially design-orientated. It brings together in a group all the components which are similar in shape, material, and size or else have similar functions. This system achieves component variety reduction in the design office. Since it is tailor-made for individual applications, there is no reason why it should not be found eminently suited for GT.

One advantage of Brisch system is that in addition to geometry defining Mono-code, there can be any number of additional production feature code known as Polycode for specifying size, range, surface finish, type of screw thread, and so on, so that with sufficient digits, parts with various types of common characteristics can be brought together. In application of Brisch system, a consultant has got to be called to examine the company, its general and specific requirements, and analyse a sample of currently-produced components to evolve classification and codes that fulfil the requirements. The analytical stages are carried out by the consultant who acquaints the representative of the company with the rules of classification so that when he leaves, classification can continue to progressively embrace all components being produced by the factory or company. This system is certainly costlier than the Opitz system.

Production Flow Analysis

A different technique to classify the components for GT was conceived by Professor Burbidge. It is known as production flow analysis. In this classification system, the components are classified by using their production planning sheets instead of their drawings. Classification thus involves bringing together in one list all components that take same route, or part of the same route through the factory or go through the same machine tools in the same order. This method of production flow analysis in its pure form has not been used as yet by any factory.

Four-Digit Code from Czechoslovakia

In recent years, considerable work has been done in Czech research establishments on machined components work-piece statistics. As a result, Research Institute for Engineering Technology and Economics (VUSTE) in Prague has developed a four-digit code. (See Fig. 2.) This code has the following advantages :

(a) Complete shape of component is given in one sheet.

(b) Due to its construction and use of illustrations, it is easy to understand.

(c) Adequate scope is allowed for further specialisation and expansion.

(d) Although the code is intended for machined parts, it can also be used for press work.

How to Use the Code

(a) *Part type :* The first digit is read across the top of the diagram and covers 6 types of parts like rotational with centre, without centre, flat or curved sheet, etc., which can be easliy seen and understood from the diagram.

(b) *Part class :* It is read down the diagram in the respective column depending upon the first digit classification.

(c) *Part Group :* This can be read at the bottom of the diagram in 3 and 4 digits.

BASIC GEOMETRIC SHAPE CODE

PART TYPE	ROTATIONAL		SHEETS & SECTIONS		SOLIDS (INITIAL CLASS: BASE 'Z', ARM 'R', BASE 'Z', BORE ○ H/B > 1/2 PROJECTION)	
	WITHOUT HOLE ON AXIS	WITH HOLE ON AXIS	FLAT ($\frac{H}{B} < \frac{1}{2}$)	BENT		
	1	2	3	4	5	6
PART CLASS 0	WITHOUT SHAPE		+LIMITED VARIATIONS SHEETS	1 BEND	'R' + 'O'	PRISM-LIKE
1	ONE SIDED SHAPE		+LIMITED CURVES	2 BEND	'O' ∥ TO 'Z'	FLAT $\frac{H}{B} < \frac{1}{2}$
2	TWO SIDED SHAPE		+LIMITED VARIATION & CURVES	3 OR MORE BENDS	'O' ⊥ TO 'Z'	FRAME-LIKE
3	SHAPED FROM MIDDLE		FULL SECTIONS	1 BEND	'O' ∥ & ⊥ TO 'Z'	Z + 7 'S'
4	COMBINATION OF 1 & 3		OPEN THIN WALL SEC.	2 BENDS	'O' ≠ TO 'Z'	Z + 2 OR 3 'S'
5	WITH CURVED SURFACE		CLOSED THIN WALL SEC.	3 OR MORE BENDS	'Z' TO R	Z + 4 'S'
6	COMBINED WITH SIMPLE NON ROTATIONAL SHAPES			COILS - SPRINGS	BRANCHED 'R' ⊥ TO EACH OTHER	Z + MULTIPLE 'S'
7	ECCENTRICS			HOLLOWS REGULAR	BRANCHED OTHERS	
8				IRREGULAR		
9						

PART GROUP	0 NO FEATURE	1 GEAR & SPLINES	2 THREADS	3 GROOVES & SLOT
1+2				
1+3				
2+3				
1+2+3				

PART GROUP	0 NO FEATURES	1 PLAIN HOLES	2 FLATS	3 OPENING IN FORK
1+2				4
1+3				5
2+3				6
1+2+3				7

TYPE 4 TO 43
CLASS 1 TO 43
GROUP 1 TO 43

TYPE 43 TO 84
CLASS 1 TO 84
GROUP 1 TO 84

Narendra Nangea, Ravi Choudry & Om Nangia

Two Total Approaches to GT

As per modern concept of total approach towards GT, there are just two approaches which, at least in so far as a full range of components are concerned, are consistent. These are Brisch system having information by monocode along with polycode and production flow analysis.

Formation of Cell

Once on the basis of the above classification and coding methods, component families have been formed, construction of cells is further necessitated. The cell constituents are the following :

(a) Number of machine tools

(b) Plants and equipment

(c) Number of operators

(d) Labour

The construction of cell is like organising orchestra pieces of music with varying arrangement. The cell should, however, be flexible as regards number of machines and operators employed and consequently requires flexibility of labour according to variations in product-mix and quantities required. The above constituents of a cell already exist in a factory; the only need is to rearrange the necessary items into individual cells by placing the required plant alongside conveyors for easy flow of the piece parts between machines. For example, let us say we have selected a family of 100 parts to be manufactured in a cell. The cell should be so constructed that it caters for complete range of items. The simple one may take only 3 or 4 operations, while the more complex ones may take 7 to 10 operations. It may be borne in mind that although maximum number of operations may be 10, but number of machines required may be 13 or 14. This will, of course, depend upon the number of split operations to be carried out in order to balance all the operations involved as far as possible.

Evaluation in Relation with Conventional Jobbing Production

Most of us are quite familiar with conventional method of jobbing production. However, a comparison of jobbing production and with the application of GT is discussed in the succeeding paragraphs, bringing out advantages, by refering to examples, wherever possible.

Layout :

The layout of a machine shop will be considerably different from conventional layout where all similar types of machines are installed together in one place say, lathes, milling machines, drilling machines, etc., all placed type-wise together in a conventional layout. Obviously the routes to be followed by items will be exceptionally longer and time-consuming, whereas in a cell layout, as explained earlier, various types of machines required for manufacturing a family of items will be grouped together irrespective of types of machines involved. Hence, the movement of items or piece parts under construction would follow the shortest route and the time consumed in movement of the item from one machine to another would be almost negligible as compared to conventional layout. This itself would considerably reduce the production time of item in Cell type of layout.

The conventional layout demands wide gangways and ample space for at least two containers at each machine, whereas cell layout being very compact would require only one container at the begining of the cell and the other at the end. Hence space required in cell-type layout is much less.

Fig. 3 indicates the conventional layout of machine shop and a few routes to be followed. It can be seen that long and time-consuming routes are to be followed by the items under manufacture which are avoided in the case of a cell layout.

Manufacture Concept

It has been stated above that manufacturing time can be reduced to half as compared to conventional batch or jobbing production. Similarly there are other advantages already discussed in a cell-type production using GT. Let us take an example of say 200 piece parts which have

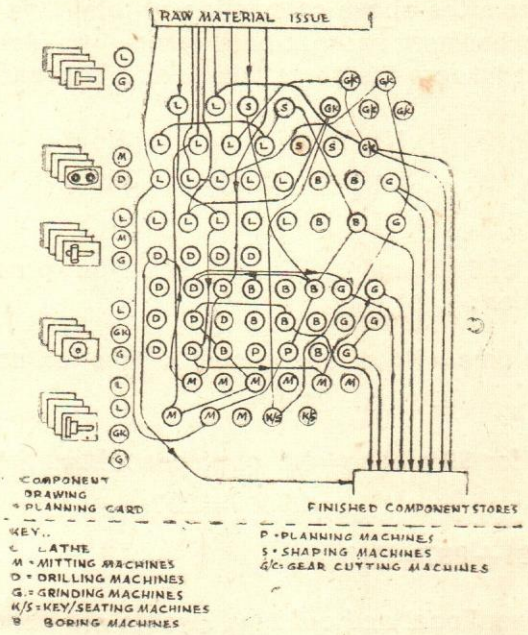


Fig 3

been grouped together using any one of the methods, viz., Brisch, Opitz, etc. since they have somewhat similar shapes and require a large number of common operations.

From the past experience and old operations sheet of each of the 200 items which have been grouped together in one family, we know the number of operations required and time required for each operation and in case of doubt these could be cross checked with current practice and updated records.

Assuming that we take a batch of 100 to be manufactured by GT method out of a family of 200 items selected above, we already know the throughput time of each operation. Let us also take that each piece part or item requires on the average 7 operations, each taking 3 minutes. The total time required by conventional method is :

$$\text{Total time} = \text{batch qty} \times \text{No of operations} \times \text{time}$$
$$= 100 \times 7 \times 3 = 2100 \text{ minutes}$$

It will be seen from the above calculation of total time that time required in materials movement has not been taken into account whereas in actual practice it takes quite some time with a conventional layout.

No 1	No 2	No 3	No 4	No 5	No 6	No 7
3 mts	3 mts	3 mts	3 mts	3 mts	3 mts	3 mts
						Stores

The same batch of 100 under GT and cell-type production would take total time as under :

First piece time = No of operations × time for each

$= 7 \times 3 = 21$ mts

Total time for 99 pieces = No of pieces × Max. time of an operation

$= 99 \times 3 = 297$

Total $= 21 + 297 = 318$ mts

The conventional and cell type layouts are shown in Fig. 4

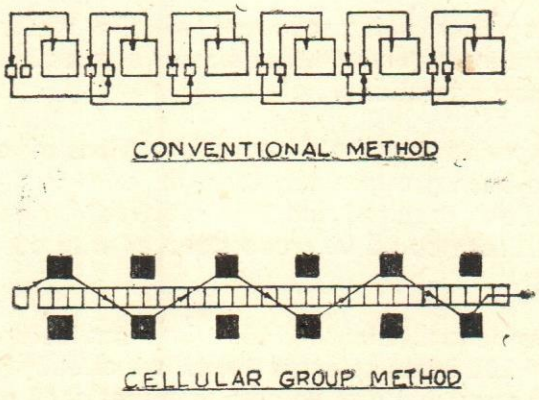


Fig. 4

In this method of cell-type production, it will be seen that first piece part would take 21 mts but the balance 99 parts would take only 3 mts per piece because as the first piece has finished the 7th operation the next piece has finished the 6th operation and is ready for the 7th operation.

In the conventional method, all pieces first undergo the 1st operation and then are fed to next machine for the 2nd operation. From the above example of simple production, the ratio of total throughput time is approximately 7 : 1 between cell and conventional method, even though we have neglected the time consumed for material movement in conventional production method.

The above time of 318 mts assumes that there are 7 operations each working on a machine. If the targets laid out by the marketing division allow some additional allowance of time, i.e., more production time, the operators could be reduced to half and increasing time for each piece by 6 mts as against 3 mts.

The above example was taken of a simple piece part and to illustrate how throughput time in cell-type production is reduced substantially. Let us now take an example of a most complex piece part of the family requiring ten different operations with timings for each operation as under :

Operation No	1	2	3	4	5	6	7	8	9	10
Time reqd. (mts) for each	2	7	5	4	9	11	6	3	2	7

Total time required by conventional method
for batch of 100 piece parts is : $100 \times 56 = 5600$ mts.

Time required by cell-method is : $1 \times 56 = 56$ mts for first piece

$$99 \times 11 = \frac{999 \text{ mts.}}{1055 \text{ mts.}}$$

The time for balance 99 each piece part is 11 mts as it is the maximum operational time and, therefore, controls the rate of output of balance 99 piece parts and, thus the throughput time is reduced by approximately 5 times even without taking into consideration the time required for materials movement.

Continuous effort should be made to reduce the throughput time by effecting decrease in the maximum operational time. Supposing it is

reduced to 9 mts, i.e., for No. 6 operation from 11 mts to 9 mts, the new throughput time can be worked out as under :

Operation	1	2	3	4	5	6	7	8	9	10
Time in mts	2	7	5	4	8	9	6	3	2	7

Total ouput time with No. 6 operation time reduced to 9 mts and grouping (1&2), (3, 4) (7, 8) (9, 10) the total time for each is 9 mts.

(a) $6 \times 9 =$ 54 mts for first piece

(b) $99 \times 9 = 891$ mts for subsequent pieces

Total $= 945$ mts (as against 5600 mts by conventional method)

Reduction in Number of Operators

In the above example we have grouped the operations to reduce the output time. At the same time, the number of operators could also be reduced by training them to work for at least 2 operations. Here, in the example one operator each could work for 1 & 2 operations as total time required for 2 operations is 9 mts which is equivalent to maximum operational time. Similarly, for 3 & 4, 7 & 8, 9 & 10 operations, we would require one operator each for each pair of operations. Hence keeping the same output time for a batch of 100 piece parts as 945 mts the operators required would be 6 as against 10 originally required. This could bring down the cost of labour, and the cost of item too.

Delivery Dates and Work-in-Progress

In GT production, the delivery dates could be strictly adhered to because exact time required for a batch could be worked out easily whereas in jobbing production, exact time required would be more and, therefore, it is difficult to correctly assess the rate of production. Hence delivery schedules in cell production would be not only shorter, but reliable. Work-in-progress would also reduce in the same ratio as that of output time.

Loading and Progress Chasing

In the conventional method individual loading of each machine has to be seen whereas in the cell method, only loading of complete cell has to be seen, and the machines in the cell will automatically be loaded. The inspector can easily check the progress at end and does not have to go to individual machines.

Cost of Jigs and Fixtures

In a cell-type production, since items are similar in nature, shops requiring common operations are grouped together in a family. Therefore common jigs and fixtures which can be used for a complete family can be manufactured and used as against having various jigs and fixtures required for each type of item being manufactured. Reduced costs of jigs and fixtures also reduce the setting and change times.

Communication and Labour Relations

In the above paragraphs the advantages of cell production using GT over the conventional methods have been discussed. In any industry it is essential for the management to have effective communication and labour relations for healthy growth of the industry. Effective communication, means that any major decisions should be taken by the management after active participation by representative of the workers. The management should let the workers know about the extent of the changes being expected and the reasons thereof. Most acceptable reason perhaps is money and GT provides ample benefits in terms of money. Once the workers get the benefit of GT in terms of bigger pay packet, neater layout in workshop, cleaner operational procedures and job-evaluated wages and salary structure, they would have a sense of willing participation in the change.

Conclusion

The more-efficient and effective 'high productivity' methods of large mass production techniques can be adopted for jobbing and mix-quantity

production by using Group Technology. The main constraint of mass production, wherein standard parts are required, can be overcome by using GT. In fact it provides for the long-awaited breakthrough for the developing countries to catch up with latest mass production technology in batch production. Although at present GT has found major application in machine tool manufacture and sheet metal work, there is no doubt that in years to come it will be used in all batch/jobbing or mixed quantity production of other products as well.

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NATION REGAINS
SPIRIT OF ADVENTURE 1975-76

Drive Against Black Money

- The underworld of smugglers smashed. Top smugglers behind the bars; 42 smugglers declared absconding and their property seized.

- Ceilings clamped on vacant urban land. Transfers within ceilings forbidden.

- Limits on area of dwelling units set. Valuation of luxury houses to nab tax evaders. Direct taxes collection up by 27.4 per cent since July 1975, following tax raids.

- Income and wealth exceeding Rs. 15,870 million disclosed by over 250,000 declarants under Voluntary Disclosure Scheme. Tax revenue Rs. 2,490 million.

davp 76/90

DELHI'S ACHIEVEMENTS IN THE YEAR OF FULFILMENT

Decline in Prices

Price rise arrested; negative rate of inflation achieved; model public distribution set-up; people's cloth being sold through 253 coops, and 2251 Fair Price Shops in urban and rural areas.

Home for the Homeless
Land for the Landless

4136 acres of agricultural land distributed to 4538 Harijan and poor landless families. 5000 house sites distributed to poor and Harijan homeless. Rs. 18 lakhs distributed to Harijans, as housing subsidy.

Apprenticeship

3529 young men placed as apprentices in industries as against the target of 3500.

Public Enemies on the Run

2259 raids on dishonest traders. Suppressed transactions of Rs. 16 crores detected. 14,000 raids against hoarders, black-marketeers.

Relief for Students

Book Banks in 853 schools, stationery at cheaper rates; hostel food costs less; 12 point programme for school improvement. Free text books to all primary students. Rs. 8 lakhs spent in providing school uniforms to the poor students. Additional Rs. 8 lakhs this year.

Production Picks Up

600 industrial sheds constructed, Rs. 3.5 crores distributed as loan to industries.

Vegetable cultivation increased from 16.20 thousand hectares in 1972 to 19.72 thousand hectares in 1976. Multiple cropping popularised. Marginal Farmers and Labourer's, Development Agency helping the weakest farmers.

Beautification

City area has a new look. Jama Masjid complex re-developed and beautified. Subzi Mandi shifted to Azad Pur. 200 non-conforming industries shifted to the conforming area. 20 Resettlement colonies, with 50,000 plots having basic amenities, set up. New hopes of better life and opportunities for the poor and the weakest. To make Delhi greener 10 lakh trees being planted, of which 6 lakhs have already been planted.

Rural Development

50 villages to benefit from integrated programme under Cleanliness, Prohibition and Family Planning in the first quarter of 1976-77. All villages to come under its ambit by the end of 1976-77.

Delhi Tops in Family Planning

Against the national average of 16.1 percent, Delhi has covered 58.6 percent couples in the procreative age-group by the end of March, 1976. This percentage is higher than the Fifth Plan Target of 38 percent. As a result of an intensified drive 70,000 more sterilisations have so far been done this year.

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Book Reviews

Cooperative Organisation & Management

K.K. Taimni
WAFM Farmers' Welfare Trust Society, New Delhi, 1976, pp. xii+319, Rs. 45.00 ($8.00)

Reviewed by J. D. Verma*

Too much of state guidance, protection and control, democratic character of the managing committee, absence of adequately qualified and well trained executive, limited applications of the modern norms of business management and, above all, the local character of the cooperative societies in India have kept the movement confined to the traditional system of administration and operation. Even now, after nearly three quarters of a century since the cooperative movement in India made a beginning, the executive machinery of majority of the cooperative societies, particularly those which do not have apex system of functioning, is in the hands of the elected executive which is not necessarily possessed of the specialised knowledge of scientific method of organising and controlling an economic enterprise. Besides numerous factors responsible for this situation, the socio-economic conditions in Indian villages and small towns particularly, the membership of cooperative societies is not always available to all sections specially the weaker ones which may rightly need such institutions to promote their enterprise as also further the cause of their business. At times, the patronage emanating from the political leadership whose interest is more to earn the following of members of organisation for a political end and less to determine the objective economic policies to be followed for the promotion and growth of the enterprise has limited the scope of the application of modern methods of management to the cooperative societies.

As a result, in actual practice it has been observed that cooperative movement has suffered from diluted objectives which is evident from the fact that there is general lack of objectivity in decision making, integration between the organisation and the work-force. Management is often vulnerable to external pressures and there is always problem of identity and image. These are some of the reasons which call for an evolutionary look at the administrative system of the cooperative societies. Thanks to the introduction of principles of

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modern management in cooperation in various European and other countries as also to the advancement in the means of communication and transport, that the Congress Party immediately after assuming power in 1947, thought of upgrading not only the socio-economic structure of the movement but also invoking the necessary spirit among the people at the helm of affairs, to introduce some of the principles of efficient and modern methods of business organisation in this sector. That the principles of management are applicable to all social and economic organisations and that attitudes of social relationship at work and group behaviour rather than the physical environment machines and compulsions are more important to the success of an organisation, are the potent factors to support the change in the statutory approach to the management of the cooperative societies. Added to this are the multiple of new activities which have entered the realm of cooperatives. There is ample proof that the discipline of modern management is adaptable in the cooperative enterprise. The concept of Welfare State, which has been given a place of pride in the Preamble of Indian Constitution, has brought about the marked change in the attitude of the State towards the working class which was hitherto the torch-bearer of the cooperative movement all the world over. The State in India has rightly recognised the cooperatives as an agency for bringing about social and economic changes and for restructuring of the rural economy. As such, the vital role assigned to the cooperatives has necessitated research for appropriate management practices which can help improving their performance and thus assist in realising the course set before them.

Mr. Taimni has dealt with the subject in well organised drill, explaining in the beginning the principles of management and principles of cooperation and how these could be integrated so as to ensure transferability of management practice in cross-cultural situations prevailing in the heterogeneous structure of cooperative movement in this country. In doing so, he has not been shy in highlighting some of the basic structural weaknesses of the cooperative movement in the country. The major among these is the role of vested interests and "politicalisation of cooperatives." However, he has assumed that the lessons drawn from the working of the cooperative movement in India thus far, as also the results of improvement that have been brought about in the working of the cooperative societies in some of the developed countries of the world, provide a sound base to choose and adopt the modern methods

of management, keeping in view the local socio-economic conditions. He has discussed various models and approaches which can be considered for application by the State as well as the membership of the cooperatives given due training, guidelines, opportunity and statutory support.

Special emphasis has been placed on the role of the Board of Directors which has to replace the present democratic structure of the executive, because it is the Board which has to decide the goals to be achieved as also the policies to be adopted for the purpose. However, the implementation of these policies will be in the hands of the paid executives which is supposed to have been delegated necessary powers and authority to function. Executive has ultimately to consist of professionals with necessary education and training in modern methods of business management. However, the author has not gone in detail to realise that howsoever, cherished the principle of modern management may be, its application and practice will ultimately depend on the knowledge and quality of leadership of the local membership from among whom ultimately the so-called Board of Directors would be formed. Of course, he has made a detailed mention of the training facilities as are necessary for not only the Board of Directors, but also other functionaries in a cooperative society. This again, as it is today, is so inadequate that only cooperative societies in certain areas can take advantage of the facilities already available. Perhaps their extension to wider area, a right coordination between the local unit and the regional units, regional units and the state units and finally, state units and the national apex body are most essential.

Emphasis has also been laid on the quality of the trainer and the aptitude of the trainee and this has been illustrated by the analysis of the experience of the Vaikuntha Mehta National Institute of Cooperative Management, Poona, which is at present only a regional body. To overcome that, Mr. Taimni has suggested that there should be a National Institute of Cooperative Management at New Delhi which should have the assistance of Programme Committee, Advisory Council and the Governing Council so that the National Council is possessed of the most practical and yet modern methods of business enterprise and cooperative which could be imparted to affiliated bodies irrespective of their sizes and location.

In this connection, it may be mentioned that the newly created National

Council for Cooperative Training and Research of India has drawn up a five-year development plan to solve the "crisis of management" in the cooperative movement by setting up a number of training institutions in the country.

After mentioning how the working class has so far been kept away from paticipation in the management of the cooperative societies, which has undoubtedly created a wedge between the management and the employees, often to the detriment of the smooth working of the enterprises, the author has laid special emphasis on the role of labour in the cooperative movement and how it has to be further improved and integrated with the role of executive which will ultimately transform the present economically dormant societies into scientifically-managed business enterprises.

The author has, no doubt, drawn on the experience as gained in some of the developed and developing countries, as also on the researches and knowledge of renowned economists and administrators. He would have added to the usefulness of the book if while recommending the specific course to Indian cooperative movement, he had not ignored the age-old structural weaknesses of the movement which will certainly offer hindrance to the desired change. However, it does not mean that the cooperative movement in India neither needs adopting the modern methods of management nor is it capable of doing so; it only requires gradual approach, particularly so when, the rural economy is still undergoing a vast change from a purely agricultural society to agro-industrial society. Perhaps the author has left this to those who have ultimately to look at his thesis from a microscopic eye for adoption in a local situation as may prevail in a given area of operation. The book needs editing; nevertheless it will serve as a useful *ade-memoir* for the policy maker and the administrator who are concerned with the promotion and growth of cooperative movement in the country.

Guide to Quality Control

Dr. Kaoru Iahikawa

Asian Productivity Organisation, Tokyo 107, Japan, 1976, pp. 226.

Reviewed by Navin Chandra Joshi*

Industrialisation has brought in its train a serious concern for quality control in the production process. The concept 'Zero-Defect' has made it imperative for industrial societies to develop methodology and techniques for striving towards higher and higher levels of perfections. Yet, however, as defects are removed, standards of quality go up and consequently, newer problems of quality require to be solved.

The present book usefully serves as a guide for lower levels of workers in coming to grips with techniques in locating defects and improving quality. The book mainly concerns itself with data collection and analysis. As such, it gives a practical orientation to issues of quality control.

Starting off with an explanation of how to collect data, the book takes us through the subsequent phases of drawing diagrams, check sheets, graphs, control charts and sampling inspection. The book ends up with the chapter on practice problems which contains a number of tricky questions and their solutions on the basis of what has been described in the earlier chapters.

It is said that quality dispersion occurs because of raw materials, machines or equipment and the work method. Raw materials differ slightly in composition according to the source of supply and there are size differences within the permitted limits. Machines may seem to be functioning in the same way but dispersion can arise from differences in the axle sleeve fittings or because a machine is operating optimally only part of the time. In the same way, work methods differ slightly although they appear to be the same.

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While agriculture has been the major economic activity in the country through 1950s and 1960s and is still very important (at present nearly 50 per cent of national product is derived from agriculture; 2/3rd of the workforce is engaged in agriculture), unfortunately, there has been considerable communication gap in this sector. This has been a serious handicap both for the policy makers as well as for the researchers. The United News of India (UNI) has, therefore, done a good job in attempting to bridge this gap through launching "in July 1970 a pioneering news service known as the UNI Agriculture Service. Blazing a new trail in agriculture in India and abroad, this service provides a steady flow of factual material on a vide variety of subjects to all thoseinterested in agriculture in India and abroad. In a weekly packet of approximately 8,000 words the UNI Agriculture Service packs information on different aspects of agriculture which is of immense value to farmers and others engaged in agriculture," (Foreword). The present volume also testifies that UNI has succeeded in its mission. The book under review gives an extensive account of what happend in agriculture in the course of last couple of years. It touches at the various aspects of agricultural development.

First chapter deals with general state of agriculture and makes a broad survey of this sector touching on topics like 'Farm Development Outlay', 'Targets of the Fifth Plan', 'Plan for Step Up Multiple Cropping', 'MFAL Development Agencies', etc. Chapter 2 is devoted to food-grains production; progress of agriculture in States is dealt in Chapter 3. Agricultural research finds place in Chapter 4 and a good part of the space here is devoted to the recommendations of the National Symposium on Agricultural Resarch held in March 1973 in

**Lecturer in Eco[illegible]ics, [illegible]

The author explains the possible causes of dispersion in the quality characteristics arranged in the cause-and-effect diagrams. In order to reduce the number of defectives, it is necessary to know the kind of defects and their percentages. Since every defect has different causes, it is of no use just to list the total number of defects. We must find the number of defects caused by each reason and appropriate action must be taken beginning with places where there are many defects. Check sheets must be made to keep equipment working efficiently and trouble-free. Some checks of tests are made daily, others weekly, still others monthly or at fixed intervals. With even the slightest absent-mindedness, it is easy to forget a check-up or even whether a test was really made or not. In such cases a check sheet helps in carrying out the work with certainty.

The author emphasises on the use of what he calls "Pareto Diagrams." These diagrams tell us which factors are most important and deserve concentrated attention for improvement. Likewise, graphs of various kinds help in giving a snapshot view of statistical data. A control chart depicts the average value of defects for each day. It also gives the extent of change in the production process.

The book fruitfully explains the sampling process and the cybernetics [illegible]

New Delhi. Chapter 5 deals with food crops and is mainly devoted to rice and wheat, the two major food crops of the country. It is stated that if the entire 60 million tonnes of paddy is "husked by modern rice mills, an extra yield of 1.8 million tonnes of rice, 0.5 million tonnes of rice oil, and 2.25 million tonnes of de-oiled rice bran could be made available to the country", (p.113). We are further told that on account of research done by the All-India Coordinated Rice Improvement Project, Hyderabad, two new high-yielding varieties of rice have been developed; and further that "these varieties would be well received in the upland areas of the Andhra Pradesh, Uttar Pradesh, Punjab and Haryana," (p.114). Now rice being the principal foodgrain of the country, accounting for over 50 per cent of total food production, much, of course, depends on how farmers respond to the introduction of new high-yielding varieties in rice and how the rice output is maximised through the introduction of modern techniques of paddy husking.

Chapters 6,7 and 8 are devoted to industrial crops like oilseeds, sugar and cotton: cash, plantation and horticultural crops find their places in Chapters 9,10 and 11. We are told that there are fairly good prospects of India soon reaching the goal of self-sufficiency in the production of long-staple cotton. This is based on the results obtained from growing this variety of cotton at the newly-started Raichur (Mysore) state-owned farm (p.170). Much again would depend on how far the results of the Raichur farm are successfully transmitted to farmers cultivating cotton.

Among the plantation crops, India is developing a good export market of coffee. In 1973-74 coffee fetched over Rs. 45 crores of foreign exchange which was 36 per cent higher than exchange earnings during 1972-73. It was expected that the exchange earned during 1974-75 would be near Rs. 45 crores. It is interesting to find that the USA and the USSR are the two major markets for the Indian coffee. Cashew-nuts which fetch nearly Rs 60 crores of foreign exchange are the second largest dollar earners. Attempts are being made to raise "select varieties of high and quick-yielding cashewnut seedlings for distribution to farmers," (pp. 201-2) and further that 200 acres of hilly land have been set apart by the Karnataka State Farm Department for this purpose. This is expected to result in a major breakthrough [illegible]

Land reforms are dealt in Chapter 12 and farm finance in Chapter 13. The Approach Paper to the Fifth Plan had envisaged that cooperatives would have to disburse farm production credit to the tune of Rs 3,000 crores by the end of the Fifth Plan (and this was 50 per cent higher than what had been estimated in the last year of the Fourth Plan). While this is so, the Annual Report of the Ministry of Agriculture (Department of Cooperation) presented to the Parliament in 1973 had pointed out that one of the most disquieting features hampering the growth of cooperatives had been a steady increase in overdues (p. 238). It would, therefore, be not safe to plough such a vast amount of credit into the farm sector unless effective measures are taken to cut down overdues.

Chapter 16 is devoted to farm machinery. Other inputs like irrigation, seeds, manures and fertilizers are dealt in Chapters 17,18 and 19 respectively. Rural electrification is covered in Chapter 22. We are told that by 1981 at least 50 per cent of villages in each State would be electrified (p.337). The reviewer, however, feels doubtful of this and this is particularly so when one considers the fact that by the beginning of 1973 only 24 per cent of the villages had been electrified. Thus it appears a heroic job to electrify 26 per cent of the villages within a period of eight years. Further, one has to ask, how far are we justified in electrifying the villages when the industrial sector is facing power difficulty ?

One is happy to learn that new techniques of dry farming are getting popular in agriculture (Chapter 23). It is estimated that 75 per cent of the total cultivable area is under dry farming and it accounts for 40 per cent of the total food production. There appears to be considerable scope for raising productivity of dry farms through the application of modern techniques. Unfortunately, despite promising results, dry farming techniques have not received enough attention from the policy-makers so far.

Forestry, animal husbandry, dairy industry and fisheries find their places in Chapters 24, 25, 26 and 27 respectively. We are told that by the end of the Fifth Plan there would be 22 agricultural universities in the country (Chapter 22). It would serve little purpose by multiplying these universities unless these (as also has been rightly pointed out by the Union Minister of State for Agriculture, Shri Shinde, (p.395)

practise on their campuses and farms all what they preach to others. Thus through demonstration of the benefits had from new techniques through creation of a network of model farms and through sending their students to rural areas to preach what they had learnt on their campuses, these universities would be justifying their existence.

Briefly the book is a mine of information for those interested in agriculture and would prove specially useful for researchers and even for policy-markers. The book is well edited and highly readable. It also contains a list of agricultural universities and institutes in the country.


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- Growing attitude of cooperation and sense of belonging.

davp 76/153

NATION REGAINS
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- Cortrolled prices ensured by price tags and price lists at retail outlets. Supplies to vulnerable sections maintained.

- Public Distribution system streamlined by removing constraints of inter-State movement, easier flow of goods. In this, help of consumer cooperatives enlisted.

- System of sole-selling agents abolished in some vital consumer-oriented industries.

- Model scheme for equitable distribution through cooperatives and approved agencies in Delhi shows the way. Cochin, Coimbatore, Durgapur and Nainital follow suit.

davp 76/152

New Books : Annotated List*

Basic Arts of Budgeting

McAlpine, T. S.

London, Business Books Limited, 1976, 223 pp, £6.00

Budgeting is the accepted basis for profit planning and control. It has been practised effectively and profitably by many progressive companies who, generally regard it not simply as a procedure, but as one of the more important processes of management. But Budgeting is still an underdeveloped function of management. There is considerable scope for applying it more effectively and more extensively. This book considers budgeting in all its aspects in relation to business operations and to the factors that can influence performance, showing that budgeting is a central factor in effective planning. This is a practical and an informative book for all levels of management and for students of management, accounting and business studies.

Developing Tomorrow's Managers Today

Dinsmore, Francis W

Nwe York, AMACOM, 1976, 130 pp, $9.95

The purpose of this book is to develop a better understanding of managers as they are and of how they can be changed to maximise what works best, not universally, but in one particular organisational environment. The book has been designed to serve as a guide for all busy managers, particularly, those at the middle and higher levels. An attempt has, therefore, been made to keep it brief, concise, and to the point.

How to Negotiate a Raise

Tarrant, John J

New York, Van Nostrand Reinhold Company, 1976, 195 pp, $9.95

This book is a step-by-step guide to raise negotiation. It covers the ways in which one can size up the people and situations affecting one's

*Prepared by Mr. S. N. Vig, Documentation and Information Officer, National Productivity Council, New Delhi.

chances; the selection of goals; the avoidance of pitfalls; the development of strategies; and the use of tactics that best carry out one's strategy. It also shows how to start planning for a raise on the day one is hired—how to discuss money with the boss in a way that makes big salary increases almost inevitable. There is a complete chapter on interview plays.

The Impact of Multinational Enterprises on Employment and Training

Geneva, International Labour Office, 1976, 32 pp, 12.50 Swiss Francs

This is a first analysis of the information collected by the ILO on the very controversial issue of the impact of multinational enterprises on employment in developing and industrialised countries, and on the transfer of knowledge to the host countries. Chapter 1 deals with the influence of the operation of multinationals on the growth of employment in developing countries—both direct job creation and indirect effects. In chapter 2, the employment effects on industrialised countries are distinguished according to whether the countries in question are capital-exporting or capital-importing. Chapter 3 covers the contribution of multinationals to the advancement of knowledge in the developing countries through the transfer of technology and the training of personnel.

Income Distribution : Analysis and Policies

Tinbergen, Jan

Amsterdam, North Holland Publishing Co., 1975, 170 pp, Fl 40.00 (about U.S. $16.75)

Surveys the literature on trends in the inequality of individual and family income in developed countries. The general pattern that emerges is one of a long-term decline in inequality, including the post-World War II period, although the data end at 1966. This finding, however, warrants more words of caution than are offered. The data prior to the 1930s are few in number and of questionable quality and comparability to the more recent data. At least in part, the larger inequality during the Great

Depression than in the post-World War II period may reflect a cyclical rather than a secular phenomenon.

Multinationals in Western Europe : The Industrial Relations Experience

Geneva, International Labour Office, 1976, 72 pp. 17.50 Swiss Francs

Based largely on direct interviews held with representatives of employers and workers' organisations and with government officials, this study compares the industrial relations experience of multinational enterprises in the food and related industries and in the metal industries (with special reference, in the latter case, to the engineering industry and, particularly, its automobile and electrical-electronics sectors) in six European countries, namely Belgium, France, the Federal Republic of Germany, the Netherlands, Sweden and the United Kingdom. Special attention is paid to such major issues as union recognition, the role of multinational managers in employers' associations in the various countries surveyed, labour problems and union reactions connected with the investment, production and employment policies of multinationals and union and employer experiences and attitudes regarding transnational labour relations.

Sources of Variation in Agricultural Productivity

Mukhopadhyay, Sudhin K

Delhi, The Macmillan Company of India Ltd., 1976, 121 pp. Rs. 40.00

This book presents an econometric inquiry into the structure of agricultural production in India and offers estimates of the contributions to regional and temporal variations in output by measured inputs, unidentified regional factors and weather variables. The author analyses agricultural production within a general framework that can consider the various sources of difference in output among regions and over time. An analytical model is developed, combining cross-section and time series observations, which permits one to decompose the measured sources of growth and regional variations in agricultural output.

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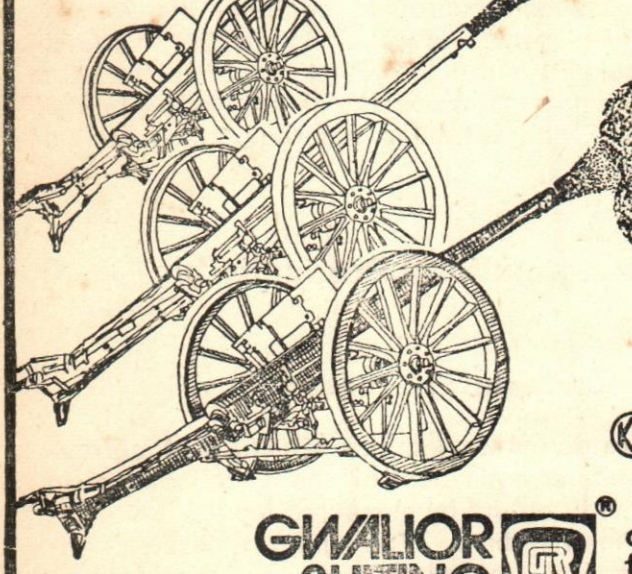

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Workers' Participation in Industry : Concept and Reality

B. N. Datar*

The 1970s have witnessed a new style in the development of labour policies in the country. Almost since independence, in fact even prior to it, the forum for discussion on matters connected with labour used to be tripartite in the form of Indian Labour Conferences and the Standing Labour Committees. In the periodic meetings of such tripartites all matters which had implications for the life of work and life of leisure of the working class used to be debated and the consensus at these meetings was a useful touchstone for the Government in reorienting its policies and revamping administration. Whenever necessary, the Ministry of Labour invited other ministries to throw light on specific issues raised either by employers or workers; in the process, other ministries got acquainted with the views of organised employers and trade unions. This consultation did provide a firm basis for the country's labour policy both at the Centre and in the States. Similar periodic consultations at the State level made the tripartite forums even more broad-based. The arrangements, though not internationally unique, had some appeal to democratic countries in the developing world.

Urge for Bipartite Approach

The tripartite consultations seem to have fallen in disuse. More recently, even as pressures for reviving them were being built up, compartmental consultations with the Central Government by State Governments, employers, and workers' organisations have been taking place and even discussions between the main interest groups. These new discussion forums seem to be getting popular because of the results achieved through these consultations and the feeling within the employers and workers' groups that advice on labour policy, particularly in the field of industrial relations, should be more a matter for mutual discussions between employers and workers, with Government acting merely as a catalyst to bring the parties together. The current style of seeking ad-

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vice is not new; it was tried out on an experimental basis during the late 50s through what was known as the Joint Consultative Board for industry and labour, a bipartite arrangement for discussion of labour policies in addition to the tripartite forums referred to earlier.

This urge for a bipartite approach to labour matters seems to have resulted out of the feeling among the employers and workers that if production and productivity have to be at the optimum level, cooperation between employers and workers would be necessary at all levels : policy formulation, policy implementation and policy evaluation. In an arrangement like this there should be no place for taking differences to the stage of work stoppages, since these could be adjusted in a fair manner and without a feeling of bitterness at one level or the other. The arrangements envisaged for this purpose at present operate at the national level, at the state level and also for different industries for taking a national view of the industry problems. Important industries like textile, banking, cement, engineering, chemicals, plantations and sugar have bipartite committees at the national level. These are the apex bodies at the national, state and industry level. Some industry bipartite arrangements also operate at the state level. While industry bipartites and state level consultations could be considered more realistic, for a worker to perceive them as such, extension of these to the undertaking is essential. It is these free and frank plant level discussions alone that will pave the way for improved production and productivity. Though this has been an accepted position and arrangements had been worked out in the form of Joint Management Council, to be operated on an experimental basis during the 60s, the experimental stage was dogged by scepticism on all sides. Emergency Production Committees with somewhat restricted functions were proposed to be set up following the 1962 Emergency. These also, it seems, failed to thrive. A bold thrust was necessary to put all these experimental schemes on a sounder basis and to enlarge their coverage.

A Bold Thrust to Workers' Participation

The inclusion of workers' participation in the Prime Minister's 20-Point Programme has provided this thrust. The responsibility is now on the parties : the employer and the union to work out modalities to mutual satisfaction but within a broad framework developed at an appropriate level. The form which workers' participation should take thus became a

subject matter of detailed discussion in the national apex body. Some tentative ideas of how participation could be given a shape at the level of the undertaking were discussed and these have been incorporated in Government Resolution on the scheme in October 1975. The Resolution envisages workers' participation on the shop-floor and also for sorting out the problems at the level of the undertaking. While the intention of Government is not to put the scheme in a strait-jacket and to leave major initiative to the management depending on its own needs, the Resolution has provided a blue-print about how shop council should be formed and what the functions of the council should be. Similarly it has supplied details for Joint Council for the undertaking. It has given enough flexibility to the management for determining the size of the two councils, the only condition being that the councils should have no outsiders. The Resolution attaches considerable importance to communication within the undertaking and has expressed the hope that these bipartite forums, if worked in proper spirit, would ensure the involvement of workers in effective functioning of the unit, thus improving production and productivity.

The functions for the two councils have been well conceived. Emphasis is both on production/productivity on the one hand and safety and welfare on the other. The shop council is to be consulted on production targets, improvement in production, identification of reasons why certain workers are slack, help maintaining discipline, ensure appropriate working conditions and so on. Some of the functions at the Joint Council for the plant are similar; all inter-shop matters and matters not settled in the shop councils are thoughtfully included for discussion at the plant councils. Also consultation on manpower development, training and provision of incentives is envisaged.

Need for Adequate Communication/Education

If this arrangement is to succeed, its basis has to be adequate preparation on both sides. The preparation on the side of the employer/management will be to educate and reorient itself to modified notions of what were once recognised as management prerogatives. While some of these prerogatives may still remain, several others will have to be exercised in consultation with the appropriate councils. For instance, production targets were unilaterally fixed so far, but if workers are taken in confidence the task can be achieved more easily. Unilateral enforce-

ment of discipline may have to give way to disciplinary matters being settled in consultation with the bipartite forum as appropriate. What is more, the management will have to see that these modified ideas regarding prerogatives are communicated to other levels in management ranks. At times mere communication may prove to be inadequate; imbibing of communication may also have to be ensured.

For Unions, the preparations will be in the form of greater awareness of the workers' responsibilities and developing abilities in workers to make their participation in the consultative forums effective. Equally important is the knowledge of what to expect and what not from these participative arrangements. For all these, development of a suitable training programme for its nominees on the various levels of consultations will be necessary. As in the case of management, unions will have to ensure that the training imparted is suitably imbibed. This is no mean task for unions; it will test the organisational capabilities of their leadership in a different but significant area of trade union responsibility : contribution of organised labour in the task of nation-building.

Extending the logic of compartmentalised communications/education of the representatives from the management and workers group, it may be necessary to arrange a get-together at periodic intervals for nominess of both the sides in the consultative forums to get educated together in the tasks which are required to be performed. But who should take on this responsibility ? In terms of the unity of objectives for which the proposed scheme is designed, this responsibility could be of an institution which may be set up by either management or labour to train its respective groups but in the interim it is always useful to meet on neutral ground. There are enough institutions for the purpose, particularly in metropolitan areas. Because of the emphasis on production/productivity problems envisaged for discussion, the Local Productivity Councils should host these periodic bipartite training meetings. In several centres where these have been formed, there will be no problem to build up an *ad-hoc* training faculty for the programme.

Where an employer or association of employers works with a representative union, it would be useful to have both at the level of employer/s and the representative union some feedback arrangements particularly for plant level joint councils. Such feedback, both in terms of successes

achieved and obstacles that need to be negotiated, will help in providing proper guidance at the right time in order that participative management in any unit does not get bogged down. It may also help drawing up a panel of 'trouble shooters' to which a reference will be made later.

Participative Process : Role of Technicians

The seeds of participation of this type seem to be sown through the Industrial Policy Resolution-1956. The relevant paragraph of the Resolution envisages a role for the technicians also in the participative process. In several of the functions entrusted to the councils, technical problems are bound to arise. Giving a voice in the consultative forums to technicians is particulary important in matters concerning improvement in production and productivity. This said, that apprehensions in the minds of workers about technicians have to be taken note of. Experience in the past shows that technical personnel is employer-oriented and there is tendency among them to slur over difficulties pointed out by workers. It is possible that this feeling may have no basis in reality but what is important is that workers should feel that way. If, therefore, technicians are to form a separate component in the participative process, traditions may have to be established that in matters which are likely to be contentious, decision should not be taken if workers' group has strong reservations about the decision. In a scheme where so much depends upon mutual confidence, contingencies of this type should not be mentioned but one can always err on the side of realism. One could also say with hope that this will be an interim requirement till such time as the confidence of workers and the unions is restored in the fact that the advice of technicians is purely technical advice and not unduly influenced by management considerations.

Again, to be realist one should envisage that even with the best of cooperation from all sides there will be occasions when the two sides agree to differ both on the shop-floor level and at the level of the undertaking. In the former case the Government Resolution envisages reference to the higher council. If, however, differences are likely to foul up the environment at the undertaking council, it should be possible to envisage arrangements for seeking the advice of a third party preferably a panel on which there could be one nominee from the workers' side and another from management. The advice of this panel should be considered as

final. In a recent communication, the National Arbitration Promotion Board has sent for information of its members, the arrangements developed between the Mill-Owners' Association, Bombay, and the Rashtriya Mill Mazdoor Sangh, the representative union for the textile industry for the City of Bombay. These envisage a two-tier system for trouble shooting which is reported to have worked well in all contentious matters at the plant level. It should not be difficult to adapt the system to other areas/plants with such alterations as appropriate.

While one should not unduly formalise the arrangements of this type on the analogy that "industrial relations cannot be rigidly legislated", it may yet be necessary that at the undertaking level there should be an agreement drawn up between the employer and the union which will set out the functions of the two councils, their composition, the frequency of meetings and such other matters as the participants may consider important, with possibly a voluntary arbitration clause. Where at a centre there are an association of employers and a federation of unions recognised by the association, the two should come together and agree on a model agreement on the basis of which individual undertakings will draw up their respective documents.

To conclude, one would like to draw attention to the sentiments which were expressed in the first forum which discussed on a practical plane the arrangements for joint consultation—the Seminar on Labour-Management Co-operation (1958). Recorded the Seminar :

> "The seminar was convinced that joint councils will thrive only in an atmosphere of mutual confidence and goodwill. It took note of the gradual improvement in the attitude of employers and the trade unions towards each other, but felt that there was a need for continuous educative work both on the side of labour and management."

What was said then is true even to this date : there is a greater realisation of its relevance now than when it was first put on paper. □

Participative Management : Key to Abiding Industrial Harmony Through Qualitative Change in Labour-Management Relations

G. Ramanujam*

Industrial relations, both in private and public sectors, have been deteriorating since sometime past till the declaration of the Emergency. Although it must be said to the credit of both labour and management that whenever the nation was faced with an emergency or a threat to its security, both parties cast aside their quarrels, demands and disputes, and volunteered to co-operate and work without reservation for tiding over the emergency. Yet, once the emergency is over, the labour usually revert to their old ways of demands-and-disputes-oriented trade union movement, and employers to their short-sighted policies, with the result that dislocation in production becomes frequent. We must not allow it to happen again after the conclusion of the present emergency.

Basic Facts

There seems to be lack of genuine understanding of the basic facts. Those who invest capital think that they are the masters and that those who invest their labour are their servants, and the relations between the two are sought to be regulated on the outdated concept of master and servant.

The traditional thinking that those who invest capital are the employers is obviously wrong. Even the question "who is the employer ?" is an incomplete question. "Employer of what ?" must be stated in the question itself. It will then be found that while capital is the employer of labour, labour too is the employer of capital. Thus we will find in reality both capital and labour are mutually the employers and the employed. To extend this to the logical end, they will be found to be jointly the employees of the community, who is the real and ultimate master. Both

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labour and capital are, therefore, the co-servants of the community, whose interests they are to serve. They are, therefore, co-partners in industry in the service of the community.

Again, as capital is the employer of labour, it should be made responsible for the welfare of labour. Labour too, as the employer of capital must be made responsible for the safety of capital. Hence, the two must be mutually responsible for the welfare of the community; and the community, in turn, should be responsible for the welfare of both. Thus, while capital becomes the trustee of labour, labour becomes the trustee of capital, and jointly they both become the trustee of the community. The community too, on its part must take up the role of trustee of both capital and labour in industry in return, and see that they both flourish.

When such understanding guides the relations between capital, labour and community, the cause of much of the strife that we witness today will stand removed. It is arising out of the acceptance of the basic principle of both capital and labour, that they both are mutually servants of each other and are, therefore, co-partners in the industry, that the philosophy of labour's right to participate in the management of industries should come to be recognised and implemented.

Not by Concessions and Patronage

Labour participation in management of industries cannot be brought about by any condescending act of patronage by capital as a concession given to labour, or as a means of exploiting labour out of the consequent sense of belonging to the industry. Labour participation in management of industries should be the concrete manifestation of the acceptance of the principle of co-partnership and co-trusteeship, and their joint responsibility to the community, and that such partnership should be on the basis of equality, to begin with. There is seldom the realisation of labour's role as partner in the industry so far, although we have often come across lip service to the principle.

In a tripartite conference held several years back, the principle of labour participation in management was unanimously accepted; but then such acceptance has had no effect on the industrial relations in the country, or on transforming the role of labour or management and their respective

thinking. That has been so because those who accepted the principle have done so in a superficial manner without bothering to understand the full implications of the principle, much less to strive to implement it in their respective spheres.

Pre-Emergency Joint Management Council—Still-born

The Joint Management Councils set up in a few units, both in private and public sectors, following the acceptance of the principle of labour participation in management in 1959, have been practically still-born. Neither management was psychologically prepared to treat labour as its partner, nor labour itself was equipped to accept the responsibilities inherent in its new role and discharge them satisfactorily. Joint Management Councils thus became one more committee to quarrel with each other, and in several instances, the first meeting of the Council became its last meeting as well. Such false beginnings, largely guided by the publicity value without preparing the ground for it, have been responsible for the failures. But that does not mean that the principle itself is wrong.

It should be realised that labour participation in management holds the key to happy and harmonious industrial relations and quality service to the community. Such participation, however, must be real and effective, based on thorough understanding of the philosophy behind it and a genuine desire to implement the same.

Basic Education—The Need

While on the management's side there has been no change in their traditional attitude towards labour, labour too continues to be divided on account of multiple unions and is unable to speak with one voice. Until there is a single, strong, responsible union in a plant or an industry, simultaneously with an enlightened employer, it will be difficult even to experiment this idea in that plant or unit on a voluntary basis. Therefore, the primary prerequisite is education of both management and labour: management to be mentally prepared to accept labour as an equal partner and function as such, and labour to realise the need for unity and give up its traditional, agitational role and function as a responsible partner in the industry, and as a co-servant for the community. Such education must be ensured by a planned bilateral programme which hardly exists now. Therefore, education of both management and labour

has to be oriented towards this objective, and only after we achieve certain degree of success in transforming the attitudes of both parties, can labour participation in management be meaningful.

Participative Management—Rather Urgent

We cannot, however, wait indefinitely till all management and all sections of labour in the country are adequately educated to give effect to this principle. It will take decades even to make a beginning if we are to wait for such a process to be completed, howsoever desirable that might be. Our Prime Minister, in her 20-Point Programme announced in July 1975, has included "association of labour in management of Industries" as one of the items for implementation. It has, in consequence, achieved a degree of urgency.

Further, there is a welcome move to amend the Chapter on "Directive Principles of State Policy in the Constitution", to include labour's right to participate in management of industries. This has ensured that there is going to be a permanent and qualitative change in the labour-management relations in our country. The working class will be ever grateful to the Prime Minister for this important step forward.

Wherever we have a progressive employer and a single strong responsible trade union, with a fairly long spell of happy industrial relations, there can be no justification for delaying the implementation of the programme of participative management. Such participative management should ensure the right of co-determination at all decision-making levels, commencing from the shop-floor right into the Board Room. A selective application of this principle will help us to gain the necessary experience, so that a scheme could be evolved for general application, in stages, with suitable modifications even where ideal conditions do not exist.

Once the ground is prepared and mental attitudes of both sides are attuned to this idea of participative management, there will be a break-away from the traditional agitational role by the trade unions, and the role of indiscriminate resistance by managements.

True and effective labour participation in management of industries holds the key to maximising productivity through happy, harmonious industrial relations oriented towards quality service to the community. □

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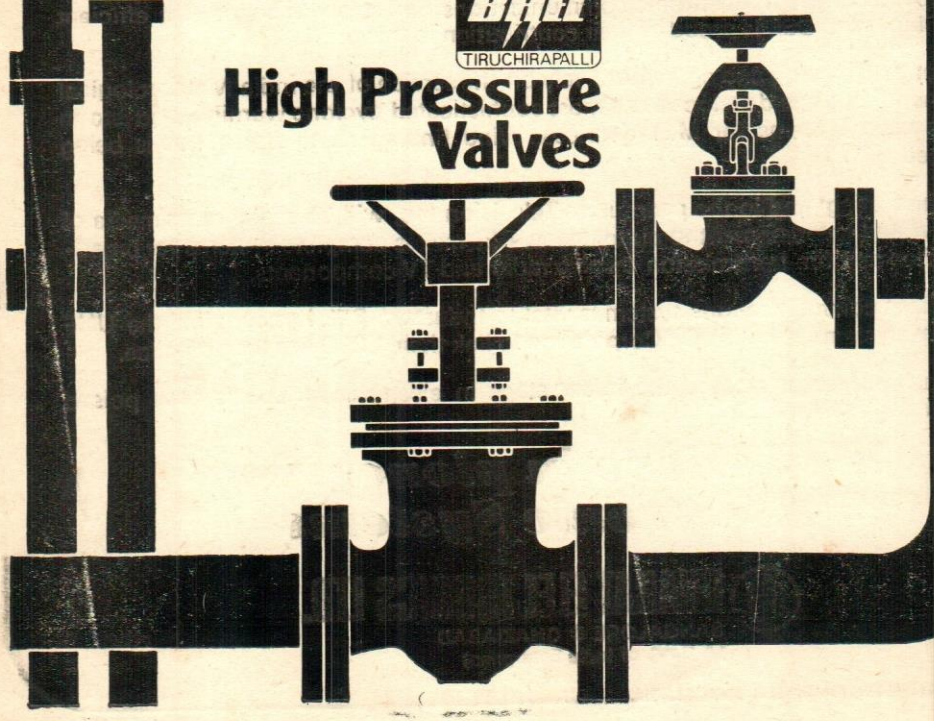

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Some Thoughts on Workers' Participation in Management

Jatin Chakravorty*

Workers' participation in management is not a new concept. Mahatma Gandhi, in his own wisdom, mooted out the idea of such a participation by workers to be executed through implementation of his own conception of a "Workers' Republic" where there should be proper understanding coordination and harmony between capital and labour and both of these "recognise each other's value and honour each other's dignity." In such a "Republic", the capitalists look upon the workers as members of the same fraternity and kinship group and being copartners in joint venture, they give them "full participation in management." Mahatmaji sincerely believed in his ideal and also had convicition that such an ideal can be achieved. Proceeding on the basis of his ownphilosophy of "trusteeship' and "class collaboration" Mahatmaji and his ardent followers made an experiment through the Textile Labour Association founded in Ahmedabad. In spite of scepticism of those who did not have any faith in this aspect of Gandhiji's philosophy, the results were most encouraging and unexpected at least in relation to industrial relations. From 1917 to 1956 there was no major confrontation and strike in Ahmedabad, except one in 1923. The Royal Commission on Indian Labour had to admit in its report in 1931, that "in Ahmedabad there is greater understanding if not sympathy between the employers and the employed than is usual elsewhere." But the result of Mahatma's experiment remained only localised and did not have any impact in other parts of the country, nor did it evoke any favourable response for emulating this example because of different socio-political traditions and uneven growth and development of the trade union movement in other areas.

Earlier Experiments

In the post-independence period new developments took place. The trade union movement became politicalised; political parties with various ideologies, ranging from extreme left to right, entered the arena and

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became fully involved in building up and organising the trade unions. Important officials of political parties and other functionaries dominated and controlled the trade unions—some of them, specially the left leaders, looked upon the trade union as "study classes for revolution" and organised the unions on a "class basis" and as labour wings of their respective parties. This new trend and development inevitably led to splits in the trade union movement at the national level and proliferation and multiplicity of unions at lower levels. Consequential inter-union rivalry adversely affected the environment and climate for achieving the desired targets of production and also contributed to stresses and strains in industrial relations. The employers also took advantage of this development which weakened the bargaining power of the unions.

With a view to meeting the situation and being inspired by examples of other industrially developed countries, both socialist and capitalist, the Government of India started an experiment in workers' participation in management in 1958. As a forerunner to this experiment there was in the year 1956 'The Industrial Policy Resolution' of the Government of India which laid down that "In a socialist economy, labour is a partner in the common task of development and should participate in it with enthusiasm..." and declared that "there should be joint consultation and workers and technicians should, wherever possible, be associated progressively in management." This issue was considered in the 15th Indian Labour Conference next year in 1957 wherein it was decided that there need not be any legislation in that regard as the employers' representatives in the conference had voluntarily agreed to introduce the scheme in some "selected industries".

The experiment by the Government mainly took two forms:

(1) The statutory works committees/joint committees, and

(2) Joint management council, accepted voluntarily by central organisations of workers and employers.

Neither of these schemes effectively served the purpose for which they were introduced.

Works committee was provided under the Industries Development Act, but there was vagueness regarding its functions and in 1959 Indian

Labour Conference drew up a list of items which normally will be dealt with by such a committee and also a list of items which would be beyond its scope.

Apathy of the management, vagueness regarding the exact scope of its functions and inadequate implementation of its unanimous conclusions were the main reasons for its ineffectiveness. The National Commission on Labour in 1969 evaluated the working of such committees and observed : "In the evidence before us, state governments have expressed the view that the advisory nature of the recommendations, vagueness regarding their exact scope and functions, inter-union rivalries, union opposition, and reluctance of employers to utilise such media have rendered works committees ineffective."

The scope of the joint management council was broadened, no doubt, and it was entitled (i) to be consulted (ii) to have the right to receive information on some specified matters and (iii) to be entrusted with administrative responsibilites in a set of functions. But its main features were its (i) voluntary character and (ii) creation of new rights as between employers and workers to be outside its jurisdiction — which made it almost infructuous. The National Commission on Labour was very categorical in its comment on the working or functioning of the JMCs: "attempts to promote wider acceptances of the idea of JMCs appeared to have met with little success over the years" and that "there does not appear to be much support for the institution in its present from" and that "the fact remains that the JMCs have not been a resounding success at any place either from the point of view of employers or labour."

Emergence of NPC

The non-achievement of the objectives of fostering better industrial relations and increase in production and productivity became a cause of growing concern which prompted the government to set up the National Productivity Council in 1959. The Council is tripartite in composition with representatives of management, labour, specialists and government on it. The main aim and object of the government in taking this step was to disseminate the message of productivity to all levels and create an awareness amongst all sections of workers and

management about the urgency, importance and the necessity of higher productivity. The slogans of 'productivity is key to success" and "productivity is key to prosperity" have been projected and through the activities of the Council with branches in all the important industrial centres, sustained efforts are being made for greater involvement and association of workers and employers in the drive for higher productivity. There is a general consensus that the Council has done a good job during the period after its inception and at least has created a climate for productivity.

In this background, the Prime Minister, in announcing her 20-point programme, has again highlighted the issue of workers' participation in industry by including this item in the programme. There has been some confusion, no doubt, about the scheme as a result of substitution of "workers' participation in management" by "workers' participation in industry" and the scheme containing the broad guidelines about the scope and functions of the bodies to be set up as circulatad by the Labour Ministry are being considered by both labour and management with a sense of caution.

Labour and Productivity

Before examining the scheme in the broader perspective and before embarking upon its implementation, it will not be out of place to deal with the various aspects of productivity specially from the workers' point of view and the conditions under which labour productivity may be optimised.

In the work of the recent proclamation of emergency, the productivity movement has assumed greater importance. The urgency and necessity of increased production and higher productivity have been pointedly highlighted and focussed in the pronouncement of the Prime Minister. She has exhorted both the management and labour to set up targets and strive hard to ensure improved efficiency and higher productivity.

In this context, the responsibility of the trade union movement for its due contribution to higher productivity is to be examined and the programme for appropriate steps in this regard is to be considered.

The role of trade unions for improving productivity can be hardly discussed and considered in isolation. It is largely dependent upon and intimately related to the role of the management and the government as well.

There are two aspects of productivity—one, the technical aspect, covering techniques of better organisation and better management and the other, far more important, pertaining to the psychological and human aspect, and involving better motivation, better attitudes and better industrial relations. Regarding the first aspect, the management is almost exclusively the dominant factor and regarding the second aspect both management and trade unions have a joint responsibility, whereas in both these aspects, the government is vitally involved and has a major role to play.

It was a basic point unanimously accepted at a tripartite National Seminar in March 1972 that "the task of promoting productivity in industry is essentially a function of the management." They must, therefore, realise that the worker is a human being first and a producer next and this sense of realisation enjoins upon the management certain social responsibilities. The efficiency of a worker is necessarily affected by the environment in which he works—unhealthy, discontented, always-grousing workers performing their jobs under conditions of physical and mental strain must inevitably be inefficient producers.

Also a survey by the Shri Ram Centre reveals that on the question of co-operation with the management in improving productivity, the Trade Union leaders who were interviewed unanimously asserted that this is primarily a concern of the management. "It was the management's function to provide machines, raw materials, work process and designs. The worker could only perform to the requirements of the job."

The social responsibility of the management is thus to create that environment and atmosphere in which the worker feels enthused to contribute his best and the management also can draw the best out of him. It enjoins upon the management a great obligation to see that the aspirations of a worker are realised which are broadly : (1) recognition of status—individual and collective ; (2) security of service ; (3) decent higher wages ; (4) scope for promotion ; (5) quick

redressal of grievances ; (6) improved living conditions including good housing and social welfare measures ; and (7) congenial working conditions.

Incentives : Important Motivating Factor

For creating the required environment, an incentive is also definitely an important factor. Incentive may be (a) financial and (d) non-financial.

There is a general belief amongst employers that a wage incentive or the size of the pay-packet helps to get more work done. This may be true up to a certain limit specially where the wages are very low.

One important point must not be overlooked during application of incentives—that it should not merely aim at increasing the rate of production but rather at maintaining the rate of work at a level as near as possible to the optimum level.

Incentives are measures which motivate a worker and stimulates human exertion. Yet, unlike machines, human beings do not have buttons which could be pressed to accelerate their activity. Motivation may flow from a complex of stimulants—economic, social and psychological. Therefore, it may be difficult to identify one single stimulant which may be most effective, even though looking to the present low level of wages, one may be prompted to suggest that the economic stimulants will be most effective.

On the question of non-financial incentives, the National Commission on Labour emphatically stated that the central aim of all incentive schemes is to raise productivity at the enterprise level. They opined that in this matter the responsibility of employers is primary, for it is they who have to seek the necessary response from workers. Since productivity improvements ultimately bring about a benefit to the community, government as the custodian of the interests of the community will have to play a role in promoting productivity and, in this process, building up incentives which would help such promotion. The Study Group on Productivity and Incentives which examined this point in details suggested that the government must pursue policies

which will contribute to the growth of a social, political and economic climate in the country conducive to the rapid and continuing growth of production and equitable distribution of the same.

Need to Create Congenial Environment

The government has also an equally vital responsibility to make its due contribution to the creation of the required environment.

On this issue, the leaders of trade unions of various cross-sections are unanimous and they have very appropriately given expression to their feelings in their statement when they met in a national seminar on 19-20th August, 1973, sponsored by the National Productivity Council : "The Trade Union Movement recognises that raising production in all sectors of the national economy—and particularly in the public sector enterprises and essential services—is essential for the development of national economy, but it wishes to emphasise that the workers are only one factor of production and that its own contribution to raising production and productivity can only be optimised if other major factors of production, especially management and government take appropriate matching actions in their respective spheres. In so far as government and employers are at the policy-making levels and are responsible for guiding the present economy, their responsibility for raising production and productivity and for creating the environment in which the labour contribution can be maximised is paramount."

The managements of both public and private sector enterprises have to create an appropriate climate for fostering proper industrial relations, leading to effective bilateral bargaining. Considerable change has to be brought about in the managerial culture and environment for promoting effective workers' participation at various levels of decision-making process and providing adequate motivation to them for maximising their effectiveness in the drive for higher production and productivity.

Employers and the government should enthuse confidence in the trade unions that it will not lead to retrenchment, intensification of workloads, reduction in emoluments and will maintain employment potential. Production norms should be mutually agreed upon between the representatives of employers and trade unions before these are implemented at the enterprise level.

Rise in production and productivity either in quantity or quality should lead to increase in real wages rather than erosion of these over a period of time. The gains accruing from higher production and productivity should be equitably shared with the workers and the commuity. It should lead to the improvement of community. It should lead to the improvement of conditions of the working class on a national level.

Optimum utilisation of capacity is another responsibility, which, of course, is not exclusively of the management alone. It is a joint responsibility to be shared also by the government.

Rise in prices is one single factor, which, more than any other, distorts the productive mechanism and creates social unrest which we are experiencing today.

The 1973 Trade Unions Seminar observed. "The trade union movement does not believe that this price rise is due to the discrepencies between rise in monetary wages and rise in productivity. On the contrary, official statistics show that while productivity has risen, real wages have fallen or remained stationary on the one hand and prices have risen on the other hand. We have observed that even when there is full production, prices continue to rise, reducing real wages. Without underestimating the importance of maintaining production and productivity at a high level of operational efficiency, we wish to emphasise that solution to the present price rise has to be sought by dealing with the factors which have led to creating parallel economy and by evolving an effective distributive mechanism under public control which will ensure equitable distribution of all essential items at predetermined fair prices."

The Seminar, therefore, demanded that for maximising the effectiveness of the effort of the trade unions and workers in their drive for higher productivity, ' Price rise has to be immediately controlled by the Government by ensuring appropriate public distribution system which leads to equitable distribution of available goods and services, and exercising effective control on money circulation, and such other factors which have direct bearing on price rise."

National Labour Commission, in its report, has commented that "increases in money wages of industrial workers since Independence have not been associated with a rise in real wages, nor have real wage increases been

commensurate with improvements in productivity. Simultaneously, wage costs as a proportion of total costs of manufacture have registered a decline and the same is true about workers in value added by manufactures."

Some legislative measures recently taken by the government may have adverse effect on the earnings of labour and thereby may disturb the climate for production and productivity. The recent Bonus Ordinance is one of the glaring examples on the point.

Against this backdrop, the new scheme of workers' participation "in industry" is to be examined and assessment of its prospect of successful implementation is to be made. From the Prime Minister's announcement, it is absolutely clear that the scheme is productivity-oriented. The sincerity and seriousness of the Prime Minister and her growing concern for productivity can hardly be doubted but it is imperative that the management and the government should and must take timely messures for creating the much-needed environment by fulfilling the conditions mentioned above. The success of the scheme will largely depend upon the timing and the degree of success of such measures. Just an appeal to the higher sentiments and strees on the duty of the parties to the industry and the nation and a call to them to contribute their mite in the great adventure of nation-building by increasing production and productivity will be infructuous unless accompanied by a share in management and gains of productivity.

Some Prerequisites for Successful Participation

The trade unions are definitely of the opinion that for effective and successful participation of workers in management of industry, some prerequisites are essential :

(1) Participation must be at all levels, from the shopfloor to the Board of Directors. Such participation must extend to all decision-making processes.

(2) Information-Sharing : The first step in this regard would be the management's preparedness for information-sharing with the workers and their union. They must place all the cards on the table, face

upwards, so that finding a solution to a given problem in a given situation does not become the sole responsibility of the management. The search for solution of all the problems should be joint, and labour must be enabled to have the satisfaction of participation in finding a solution to the problem. This can be done only if all the facts are made available equally to both parties and labour is associated in decision-making at all levels.

(3) Representatives of workers to be elected by the workers.

(4) Equal number of representatives for the workers and the management.

(5) It must be voluntary and it must evolve, but not imposed from above. If it is imposed, the attitude of the workers are bound to be indifferent and even antagonistic. In-built nature of the machinery is important.

(6) Existence of a strong and recognised union—whatever may be the method of recognition of a union.

(7) Industrial relations of a high order and for fairly long period.

From a perusal and scrutiny of the scope and functions of the proposed two-tier committees under the scheme, it is observed that it falls much short of the expectations of the trade unions. To quote the resolution of the INTUC General Council recently held in November : "The council is convinced that industrial democracy is vital to bring about economic democracy, and labour participation in management is vital to achieve industrial democracy. That is the surest way of democratising employer-employee relations, be it in the private sector, or the co-operative sector. The guidelines scheme issued by the Government of India in this regard is incomplete.

Even in the functions of the JMCs, there was "a right to receive information, to discuss and to give suggestions on economic situation, organisation and general running of the undertaking and balance sheet and profit and loss account." Even these rights have been negated under the new scheme.

The most essential factor is the attitude of the parties—Management, Government and Labour. Labour has been mentioned last because its attitude will largely depend upon the attitude of the other two.

During the setting up of the JMCs, Shri Naval Tata as the Chairman of the Employers' Federation wrote a letter to the then Labour Minister, Shri G. L. Nanda on January 5, 1962 urging upon him to change the nomenclature suitably, as "false hopes are aroused by the phrase "Workers' Participation in Management" and that "after all, JMCs are not intended to usurp the essential management functions." Workers may pertinently ask whether that attitude has changed by now.

Another important representative of the management, Shri Bharat Ram, has commented that "to take a rounded view of management and simplistic idea of associating employees with it, is both unrealistic and confusing" as "management encompasses in its field a gamut of activities ranging from the arrangement of finances to the ultimate sale of products and we should, therefore, start workers' participation by making them to participate in equity shares." There may be some cogency in such arguments, because the workers representatives must have requisite education, training, experience, knowledge and expertise in important "functions" of management.

But the workers maintain that labour participation is not to be conceded as a matter of charity or patronage, it must be a recognition of the right of labour, his inherent right of co-operation. Give them the responsibility and only then they may be properly traind up. One may quote the comment of the great political thinker, Russeau, in relation to women's suffrage, "take away the fetters, whether they walk or not."

Another feature which disturbs the climate is the persistent retrenchment, lay-off, lock-out and closure even after emergency. The West Bengal Labour Minister had exclaimed as a result of such incidents in the state that he had reason to believe "that the private sector employers were taking advantage of the emergency and were denying the workers their legitimate dues." One may ask why the appropriate government does not put deterrent restriction on closure, lay-off, retrenchment and lock-out. The attitude of the government is expected to be firm in this regard: otherwise an impression may get round that the proposed scheme is "management-oriented" in as much as increase in productivity will benefit the employers by maintaining the *status quo* and perpetuating the prevailing level of exploitation of the working class.

In conclusion, I want to draw attention of all concerned parties to the observation made by Shri V.V. Giri, former President of India and one of the pioneers of the trade union movement, during his NPC Foundation-Day address in February. 1975 :

"The difficulty in this country is a negative, complaining attitude about all other factors of production except one's own. Employers complain in this country of a historical decline of labour productivity and they cite instances such as growing indiscipline, soaring labour costs, unchecked absenteeism, constant industrial litigation, and the like, which prevent any improvement that would increase productivity. Workers, on the other hand, have their own list of complaints : inadequate wages, lack of incentives, excessive profit, unsatisfactory working conditions, bad and even dishonest management, poor maintenance of machinery, bad quality of raw materials, unfair treatment, and the like. The negations lead us nowhere. What we require is a positive attitude on the part of every individual and section of society which alone can cut the Gordian knot that strangles the Indian economy today."

Every right-thinking person will hope that though very limited in scope and function, the new scheme may be given a fair trial as a preliminary phase of real workers' participation in management and that for its success the crisis of confidence amongst the concerned partners may be resolved soon through joint and co-ordinated efforts.

Amongst the employers, let there be a new urge for new approach, new attitude and a new culture, besides winning the full confidence of the workers and the trade unions. Let them recognise that along with maintenance and development of the plant, equal emphasis must be laid on the development of the men behind the machines. Let them get prosleytised to a new faith—a new determination to accept the workers in common fraternity as co-partners to instil in them a sense of belonging. ❑

Workers' Participation in Industry : A New Start

Naval H. Tata*

In today's industrial society, the employee is divorced from active involvement in decision-making and unable to influence the authority which exercises power in the organisation. This "alienation" is accentuated in large-scale organisations and in mass-production technologies. Because of this situation, a demand is made for greater association of workers in industry and for a greater say for them in matters which directly affect them. Such is the basic motivation for various schemes and types of workers' participation in industry. But there are a number of reasons why employees may wish to participate, e.g., :

(1) The affluent workers of the West wish to have freedom as against restraint implied in taking orders.

(2) The educated employee considers it his right to be involved.

(3) There is a trend to question all authority and this includes industrial authority.

(4) Participation is a means to improve quality of working life.

(5) There is a philosophical basis that man must be creative and has need to belong which is satisfied through participation.

(6) Employees want to participate because other employees in other countries/industries are successful in doing so — a form of imitation.

Objective of Participation

Once it is agreed that participation is needed and is desirable, the precise form it should take depends on the objective that is sought to be achieved. One view is that objective of participation is to bring about harmony, common purpose and team-work

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to enable greater production and productivity. Most managements and entrepreneurs hold this view. They consider industrial conflict as baseless and capable of solution by the participative management. Another view is that conflict between labour and management is inherent in industry, and employees need to assume some control over their working conditions. Such an approach leads to the institutionalising of conflict and resolving it through the participation medium, such as works councils, supervisory boards, etc. There is, of course, nothing exclusive about either view and, in pratice, it is difficult to keep clear demarcation of motives or forms of participation.

Joint Management Councils

In India, the concept of workers' participation originated in the second Five-Year Plan and was accepted in good faith by the employers. The scheme provided for appointment of joint management councils in industries with a certain number of workers. It was to be introduced in the first instance in 50 industries as an experiment and pilot project. The councils were given the right of consultation in regard to specific matters, right to receive information and the responsibility of administration of certian welfare measures. While the scheme was laudable, it looks at this distance of time to have been premature as the conditions necessary for its introduction did not obtain. The main factors for its failure were, *inter alia*, the inter-union rivalry and the difficulty of selecting workers' respresentatives on the joint councils.

Our experience in this regard is not unique. At the Asian Regional Conference at Jakarta in 1974, at which I was present, it was indicated by some participants from other Asian countries that for various reasons formal joint consultative machinery had not proved very effective in their experience. In many cases, they had to be abandoned owing to the very meagre interest shown by workers in general and by trade unions. This situation developed whenever such consultative council was established as an independent entity through election by a secret ballot, even though subjects under the jurisdiction of the council did not in any way involve a trespass on the traditional rights of the trade union for purposes of collective bargaining. This unfortunately goes to prove that at the back of the mind of the trade

unions there is a lurking fear that any council so established, if not dominated by the majority union, at the unit level will constitute a rival to the representative union and ultimately dilute its influence over the workers. The situation becomes much more complex where there is inter-union rivalry within the unit.

New Scheme

in October 1975, Government announced a scheme limited in scope for workers' participation in industry. The objective behind it is to introduce involvement of workers in production through shop councils and joint enterprise councils. The present scheme is a scaled down re-incarnation of the old concept of workers' participation. In the old concept of this philosophy, there was provision for a worker-director on the Board. it was, to some extent, like putting the cart before the horse, without doing the preliminary ground work. The scheme as it now emerges, has its merit as an evolutionary process leading to the ultimate concept of the old scheme. In fact, it is so practical in its approach that circumstances beyond the control of the employers alone could justify his passive resistance to introduce such a scheme It is true there are a few factors beyond the control of the employer, such as multiplicity of unions, absence of representative or recognised union, insistence from non-representative unions to dominate the election or attempts to misinterpret the scheme as a further forum for collective bargaining. On the other hand, however, there are hundreds of units which have no such difficulties. It would be sheer obstinacy alone on the part of an employer to cling tenaciously to the old school of industrial relations if he is reluctant to implement such a scheme. In fact, employers have little to lose and much to gain by adopting a positive attitude. On the other hand, it is up to the trade unions to respond by not looking upon it as a newly-owned right but as an acceptance of new responsibility, fulfilment of which could lead them to their ultimate goal in participative management.

Emphasis on Productivity

According to latest reports, the scheme has already been introduced in nearly 1,500 industrial establishments in the private, public and state sectors. This is a good augury for the success of the new scheme. The

importance of the scheme lies in its emphasis on co-operation for production and productivity and the involvement of workers themselves in the shop and joint councils. It is understood that while there have been difficulties in some units over the question of representation of unions which should have a voice in the nomination of members on the joint councils, by and large, the problem has been solved through mutual consent.

The Government has not laid down the precise procedure for nomination, but this has enabled flexible arrangements to be made in different undertakings based on their individual circumstances.

The schme is one of the important planks in the 20-Point Programme of the Prime Minister and its implementation in the right spirit by all parties concerned will lead to the promotion of industrial harmony as much as improvement in production and productivity. In fact, for the first time in the new climate created after the declaration of emergency, the trade unions are thinking of productivity as a desirable concept and objective and if this interest is maintained, there will be vast improvement in our industrial relations climate with all the beneficial effects it is capable of bringing in its train. □

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Workers' Participation : How to Make it Work?

V. B. Karnik*

Workers' participation in management was a new idea that was floated in the country in the fifties. The second Five-Year Plan recommended it in the following terms : "For the purposeful implementation of the Plan, increased association of labour with management is necessary. Such a measure would help in (a) promoting increased productivity for the general benefit of the enterprise, the employees and the community, (b) giving employees a better understanding of their role in the work and (c) satisfying the workers' urge for self-expression, thus leading to industrial peace, better relations and increased co-operation. This could be achieved by providing for councils of management consisting of representatives of management, technicians, and workers. It should be the responsibility of the management to supply such a council of management fair and correct statement of all relevant information which would enable the council to function effectively. A council of management should be entitled to discuss various matters pertaining to the establishment and to recommend steps for its better working. Matters which fall within the purview of collective bargaining should, however, be excluded from the scope of discussion in the council. To begin with, the proposal should be carried out in large establishments in organized industries. The pace of advance should be regulated and extension of the scheme should be in the light of the experience gained."[1]

Presiding over a meeting of Standing Labour Committee held in Bombay in October 1958, the then Labour Minister, Mr. Gulzarilal Nanda, said the following about the idea of participation : " I believe that it is only on the basis of genuine participation between the workers and the management that peace in industry of a true and enduring kind can be established. What we are seeking to achieve through this relationship between the workers and the management is not simply absence of strife but positive collaboration for raising industry and the economy of the country to higher and higher levels. I have taken it for granted that it will become a universal feature of our industrial organization in

*Director, Labour Education Service, Bombay.

1. Second Five-Year Plan, p. 577.

this country and I am not anticipating very long period to elapse before we arrive at this stage."

Joint Management Councils : An Attempt Towards Participation

In the mean while, Government had sent a tripartite study team to Europe to study the working of participation schemes in countries that had established them. Indian Labour Conference meeting in July 1957 approved the report of the study team and decided to operate the scheme through Joint Management Councils established on a voluntary basis. A seminar held in February 1958 prepared a model argeement for the setting up of the councils. A list had been already drawn up of public and private sector undertakings which had agreed to try the experiment.

The idea had a mixed reception amongst employers as well as in the trade union movement. Employers were not enthusiastic about it, but they decided to give it a trial as Government were keen about it.

The scheme introduced under government auspices did not, however, prove successful. In 1968 it was operating in only 131 out of nearly 18000 establishments in the country. A number of evaluation studies of the working of the scheme was prepared by Government. After a close study of those reports the conclusion that a scholar arrived at was as follows :

"The impression that emerges at the end of a close study of those genuinely sympathetic and reasonably satisfactorily prepared evaluation reports is that apart from some minor salutory results here and there, the Joint Management Councils had not produced any real impact on the working of the undertakings where they were introduced. On the contrary, even during the initial period when both the management and the workers were eager, in these specially chosen concerns, to ensure the success of the scheme, the inherent conflicts underlying the scheme had begun manifesting themselves."[3]

After analysing some more studies made in 1966, he reaffirmed his conclusion in the following words : "In spite of all these efforts on the

2. *Indian Trade Unions—A Survey*, V. B. Karnik, Manaktalas, Bombay p. 211.

3. *Workers' Participation in Management*, M. V. Pylee, N. V. Publications, New Delhi, 16, p. 50.

part of the Central Government, the scheme did not register any further progress. On the contrary, it began to show a decline which once started became almost contageous in character. This is evident from a study of the Joint Director, Labour, Employment and Rural Manpower, Planning Commission, Government of India. The study acknowledges the facts that the scheme has made only very limited progress in that Councils (Joint Management) were set up only in 131 industrial undertakings comprising 46 in the public sector and 85 in the private sector, so far, in a country which has nearly 18,000 industrial establishments.

"This is, to say the least, a very mild way of saying that the scheme has been an utter failure. Today, if anyone asks a question to any senior manager either of the public or the private sector about the working of the scheme in his undertaking, he will just laugh at the question or will give a reply which will show how poor was the performance of the scheme."

The verdict of National Commission on Labour was not any different. It stated : "There does not appear to be much support for the institution of Joint Management Councils in their present form. Even where the Councils exist, they are reported to be ineffective and their functioning unsatisfactory in many cases."

Although it will be interesting to discuss in detail the causes of the failure of the scheme, it is not necessary at the moment as the scheme is now superseded by another more dynamic scheme. Broadly speaking, the causes of the failure were disinterest, amounting in some cases to opposition of employers and apathy of workers. Unless the two causes are removed, the new scheme may not also succeed.

Industrial law had earlier provided a forum for labour-management cooperation. It was the Works Committee to be set up under the Industrial Disputes Act. Works committees were set up in several establishments. Experience with regard to them is uniformly discouraging. Managements do not like them; and workers are indifferent to them. Workers are indifferent to them because functions assigned to them are insignificant. Sometimes they are also used to undermine the influence of unions. The lesson is obvious. Unless there is a genuine desire to cooperate, no institutional device will prove useful. The desire has to be on both sides. There is a danger that the new experiment may

meet with the same fate if effective steps are not taken to create the necessary favourable atmosphere.

New Scheme Makes Significant Progress

The new scheme is a part of the Twenty-Point Programme announced by the Prime Minister in July 1975. The distinguishing feature of the new scheme is workers' association with management at shop-floor level. That was one of the lacunae of the earlier scheme. It is not enough to give workers representation on boards of directors. Usually it is only a nominal representation and does not help a worker in the problems that he has to face in shops and departments. The same is the case with a joint council at the enterprise level. Participation to be effective must begin at the bottom and go up to the top. The new scheme, it is expected, will provide for this type of participation at all levels.

Workers' association with industry is a part of the economic programme to be pursued energetically during the period of the Emergency. As such, it has acquired an importance and urgency that it never had before. In a few weeks after the declaration of the programme, Government of India issued a directive that all industrial establishments employing 500 or more workers should set up departmental and plant level councils in order to associate workers with management. Some States went further and made the scheme applicable to establishments employing 200 or 300 workers. The directive was only a recommendation. It was only in one State, namely, Gujarat that it was given a statutory force. Even then, owing to the conditions of Emergency, the directive received countrywide acceptance in the public as well as the private sector.

According to information collected and circulated by *Samachar*, two and a half million workers were covered by the scheme up to the end of September 1975. They belong to industries like steel, aluminium, copper, fertiliser, cement, mica, textiles, paper, sugar, footwear, jute, glass and engineering. This is, no doubt, a very extensive coverage, both geographically and industrially. The scheme, it is stated, has avoided conflicts and brought about better understanding between employers and employees. The number of man-days lost through strikes and lockouts has gone down considerably; but it is difficult to say how far it is due to the participation scheme and how far to restrictions imposed by the Emergency. The same

thing can be said about increased production. It will require a closer look into the working of the scheme to be able to give it credit for increases in production.

Though introduced as an Emergency measure, the scheme is not going to end with the Emergency. This is clear from the decision to include workers' participation in management of industries in the Directive Principles of State Policy in the Constitution. Workers' participation in management of industries will thus become one of the accepted goals of State Policy. The goal is accepted, but the method of its implementation is left flexible. It may be through 'suitable legislation or in any other way.' Advocates of participation will not object to this flexibility. They may, as a matter of fact, welcome it.

The main aim of the scheme, as announced, is to help increase production and productivity. Both are essential in a developing country like ours. They are our main weapons in the battle for *Garibi Hatao*. But it will not be desirable to restrict workers' participation in management only to those two aims. Production and productivity can be increased through a variety of means—like, technological progress, more efficient management, better wages and incentives and better industrial relations. Many developed countries have attained that end without thinking of workers' participation in management. However, some of them have now started thinking about it, but for other reasons.

Experiences of Other Countries

Workers' participation in management is secured in various countries through a variety of means. The most popular and universally accepted means is the method of collective bargaining. Collective bargaining gives workers a say. How effective it is, depends upon a variety of circumstances, in the settlement of terms and conditions of service. In some countries like U.S.A. and Japan, trade unions are so powerful and economic conditions so congenial that they do not think it necessary to go beyond collective bargaining. They could afford to say : "The job of management is to manage; the job of the unions is to get the best wages and employment conditions by every possible means. The respective responsibilities should remain unblurred." They are thus opposed to accept any management responsibility. But in recent times, circumstances like inflation and

recession have compelled them to make some significant changes in that pristine attitude.

In Great Britain, unions reinforced collective bargaining by joint consultation which included many items which did not fall within the ambit of collective bargaining. They also experimented with a variety of joint bodies like joint production committees and others. After the Second World War they demanded and secured representation on Boards set up for managing nationalised industries. Initially, those who were appointed members of Boards had to sever their connection with trade unions of employees of the respective Boards, on the ground that there should be no conflict of interests. In recent years, opinion is turning against that insistence and the feeling is growing that it will be more useful if trade union leaders serve on the Boards without severing their ties with their unions. Apart from serving on Boards of nationalised industries, trade union leaders have, in the last few years, accepted many positions of trust and responsibility which have compelled them to participate actively in the management of the national economy and of many industries.

These responsibilities that trade unions and their leaders have accepted can be regarded as an advance in the direction of industrial democracy. Industrial democracy is a vague term loaded with many meanings from joint consultation to workers' control. A practical and useful clarification of the term is to be found in a document adopted by British Labour Party in 1968. It was drawn up by a working party. Some of the references to the document on the issue of participation will be of interest. A scholar studying the problem of industrial democracy writes : "The working party saw an extension of industrial democracy as stemming from developments in existing collective bargaining practices. It said, "We should not identify collective bargaining procedures solely with wage determination and disputes procedures. The firm linkage that we envisage between workers' participation and trade union organisation will still mean that a great deal of practical diversity of forms of participation will be experienced .... workers will understand a process of workers' participation that develops from collective bargaining rather than one entirely separate from it." It went on, "The aim of this approach would be to extend democracy in industry not by evolving new and complex (and perhaps alien) structures, but by gradually increasing involvement in a development of existing machinery which is already known and used because it deals with fundamental questions like pay and conditions. It

would encourage a movement towards participation in democratic procedures; a natural evolution rather than an attempt to conjure democracy out of the air..... ....." The working party wisely concluded that, "Once the normality of co-operation on a wider range of subjects and at different levels (work place, firm, industry, the regional and national economy) is accepted, the problem in practice is that of determining the forms of cooperation that are most suitable and the extent of cooperation which is consistent with the interests of the parties involved... ... The working party had clearly placed the major responsibility for any advance in industrial democracy upon the trade unions. And they were right to do so."[4]

The author, Mr. Horner emphasised towards the end of his study the necessity of preserving the independence of unions. He stated : "A trade union has one overriding responsibility—the advancement of the interests of its members. If it fails in that task, then in the end it will cease to be a union ...Of course, no union can conduct its business without regard to the society of which it is a part or without regard to the economic interests of the industry in which its members earn their living. Thus there is no inconsistency in unions or work-people participating in managerial decisions, joining in schemes of job enrichment or even nominating members on to management boards, provided the union's power remains independent. No joint consultation, no job enrichment scheme, no legislation providing for employee directors, can extend industrial democracy a single inch, unless, with such davelopments, the independent power of the union is preserved and strengthened.[5] The point stressed by Mr. Horner and adopted as a rule by British unions must be kept in mind by all who stand for workers' participation in management.

In West Germany, they adopted for the purpose the system of Works Councils and of Codetermination. Works Councils are established in all industrial establishments according to a law of 1952 which is replaced by Works Constitution Act of 1972. The new law expands the powers of the Councils and removes the conflicts that had developed between them and unions. The functions of the Councils include handling of disputes, protection of employees against management's anti-

4. *Studies in Industrial Democracy*, John Horner, Victor Gollanez, London, pp. 22 to 24.
5. *Ibid*, p. 219.

social measures and supervision of the application of laws and implementation of collective agreements. The Codetermination Act of 1951 applies only to companies in coal, iron and steel industries. According to the Act, employees get 50 per cent representation on Boards of Supervision. (In Germany, there is a two-tier system for the management of companies. Share-holders elect the Board of Supervision which appoints the Board of Management.) There is, in addition, a Labour Director, with powers equal to those of other directors, who can be appointed and removed from office only with the consent of employees' representatives on the Board of Supervision. In non-codetermination industries employees get only one-third representation on Boards of Supervision and no-representation on boards of management. The German trade union movement is demanding the extension of the Codetermination system to all industries. The Works Councils and Codetermination have so far worked without any major hitch, though there are, from time to time, minor complaints from both sides.

International Labour Organisation held in 1974 a symposium to discuss the question of workers' participation in management. For the symposium, information was collected from all over the world about institutional and other arrangements made in various countries for giving effect to the idea. The information collected was put in a background paper. ILO survey stated, *inter alia*, "For varying lengths of time, in a large number of countries, and by virtue, in most cases, of a legal obligation, workers' representatives have been included in management organs in the public sector as a whole or in certain nationalised undertakings, or again in railways, national airways, or various public services such as posts and tele-communications, gas, water and electricity services, etc. This is the case, for example, in Argentina, Australia, Austria, Belgium, Egypt (where equal representation was introduced in 1963), France, Ghana, India, Ireland, Israel, Italy, Mali, Mexico, Nigeria, Norway, Peru, Sri Lanka, Switzerland, Syria, Tanzania, the United Kingdom and Venezuela.

"These workers' representatives may be directly nominated by the trade unions or by the Government on the proposal of the trade unions, or elected by the personnel. Their number and influence vary a great deal from one country to another and from one undertaking to another, by reason of the functions entrusted to them by law or in practice, and because of their standard of education and training for this role."

Regarding Western Europe it stated, after giving information about West Germany; "In several other Western European countries, legislation has been drafted or adopted during the past few years with a view to introducing workers' representation in management organs of private undertakings or to reinforcing existing representation, but in most cases workers have only been granted a minority representation as compared to those of shareholders."

Varying methods adopted for setting up institutions or developing practices were brought out by the survey as follows ·

"In many countries, these bodies have been set up by legislation, e.g., Austria, Belgium, Burma, Burundi, Finland, France, Federal Republic of Germany, Indonesia, Iraq, Luxembourg, the Netherlands, Pakistan, Spain, Sri Lanka, Tanzania, Tunisia, Zaire and Zambia. In some cases (for, example, in Indonesia) the setting up of these organs is only compulsory in public undertakings. In other countries, such as Denmark, Norway, and Sweden, they have been established by agreements concluded between the central w rkers' and employers' organisations. In certain countries, again, they h ꝏ ve been instituted not by national agreements but through collective agreements concluded for certain industries or directly between the management of an undertaking and the workers represented by their trade unions, or at the initiative of the employer, on a purely voluntary basis. This type of system is found, for example, in Australia Canada, Ireland, Japan, New Zealand, Portugal, Switzerland and the United Kingdom, as well as in several developing countries, particularly in Cyprus, India, Indonesia, Malaysia, Singapore, and in a number of English-speaking African countries."

Another experiment which deserves close attention is the Yugoslav experiment of self-management. It is part of a total social transformation that is taking place in the country after liberation and more particularly after its break with Russia. Yugoslavia believes in decentralisation and self-management. The twin goals that it is pursuing are full satisfaction of economic needs and full emancipation of all as producers and citizens. The basic law on enterprises stipulates : "By freely combining their work on the basis of social assets and self-management, the working people in an enterprise organise and constantly expand production, trade and other economic activities so as to satisfy their individual and collective interests and the general interests of society." The ILO back-

ground paper states the following about that system :

"From a conceptual viewpoint, workers' management of undertakings or self-management represents the most far-reaching degree of association of workers in decisions concerning them. Probably the best known example of this type of workers' participation is the Yugoslav system of self-management which has been the subject of a large number of studies and publications and has some twenty years' experience. Under the Yugoslav system, the work-force of the undertaking exercises the principal functions of management through the self-management organs, the organisation and powers of which have been established since the sixties by the statute or internal regulations of the undertaking namely, the workers' assembly and the workers' council. The latter is elected by secret ballot by the personnel from among its members, usually for a term of two years, at the end of which its members are not immediately eligible for re-election of membership. The workers' council enjoys wide powers in the field of management, in general; for example, it adopts the internal regulations (including those concerning distribution of income), development plans and other programmes of the undertaking, supervises their implementation, decides on investments and approves the balance sheet. Every four years, it elects the director of the undertaking, whom it is also empowered to dismiss, and it generally sets up a management board and a supervisory committee, as well as a whole series of specialised committees to which are delegated advisory or decision-making powers in specific fields (for example, recruitment and dismissal of certain categories of employees, grievances, planning, financial and, commercial affairs etc.) Important matters such as mergers or the conversion of the undertaking may be, in general, submitted to a referendum of the personnel, but in practice, decisions on these matters are usually taken by the workers' assembly. This system of self-management introduced in 1950 after a period of highly-centralised management and planning, was extended after 1953 to so-called non-economic activities (education administration, health and social security services etc.)."

Participation Obviates Feeling of Alienation

This cursory survey of various countries will show that the demand for participation is a global phenomenon, that it arises in every industrial

society after some growth of industries has taken place and after workers build up some organisation. Highly-developed industrial societies present the curious spectacle of alienation. Workers lose interest in their jobs. They feel that they are mere cogs in the giant wheel of industry and that they have no significant role to play at the work place or in society. Higher emoluments or fringe benefits do not change the situation. Their dissatisfaction and frustration grow and that affects their production and productivity. They yearn for some control over decisions affecting their working life. Trade unions and collective bargaining give them better wages and better conditions of work, but at the work place they remain hands to be ordered about. They are not recognised as men who may be able to contribute something positive to the better running of industry. A lot has been written about alienation; it is not necessary to recapitulate it. But the fact remains that society thereby condemns a large mass of men to a life of no consequence. Workers in less-developed industrial societies are gradually experiencing the same feeling of alienation. It is hoped that participation in management may remove such a feeling by giving them a share in taking decisions that affect their lives.

Late Prof. G. D. H. Cole invited attention to the distressing fact that "under existing conditions most of us have to spend most of our time carrying out orders which we have had no part in framing". He stated : "This situation has always seemed to me to be basically undemocratic and wrong. I feel sure that most people who have to spend most of their time in obeying orders they had no part in framing, will necessarily imbibe a habit of obedience which will enter into their attitudes not only as employed workers but also as citizens. Either that or they will acquire an attitude of resentment that will both make them unhappy in their work and render them discontented and ill-adjusted in their personal and social relations. Both these effects are bad and both are inconsistent with the requirements of constructive democracy and responsible citizenship."[6] At another place he stated: "It cannot be denied that dull jobs are made less dull and irksome jobs less irksome when those who do them feel that they are important and that the dullness and irksomeness are serving useful ends in which their personal contributions count. A man or woman likes to feel that he or she is *somebody*, whose contribution counts."[7] On

6. *The Case for Industrial Partnership*, G. D. H. Cole, Macmillan & Co. London, (1957) p. 11
7. *ibid*, p. 19.

the basis of these and similar other grounds, Cole built up a powerful case for regarding workers as partners. Many of his arguments are now commonplace in advanced managerial sciences. His specific recommendation is, however, not accepted. The incompatibility that he pointed out between democracy in the political field and autocracy and arbitrariness in the industrial field has not also received the attention that it deserves.

Participation improves workers' status at the work-place and in enterprise as a whole. It makes him think not only about the problems of the work-place but also about the larger problems of the progress and prosperity of the enterprise and the industry. It makes him a thinking human being, aware of his rights and duties to the enterprise, the industry and the society. How far he will be allowed to develop his potentialities will depend on his ability and also upon the responses that he will get from his superiors in the organisation. It is admitted on all hands that even without technical qualifications workers know, through constant practice and experience, a lot about the machines and technical processes in which they are engaged and can make useful suggestions for their improvement. The suggestion box system prevalent in many factories is based on that belief. Many factories have reaped substantial benefits out of suggestions made by workers. A share in decision-making will encourage more workers to think of new ideas to increase production and productivity. It will also create a feeling of belonging and establish a new relationship between workers and the enterprise.

Participation : It Does Work

A number of studies have been carried out in U.S.A. about the effects of participation. A scholar who has analysed them has expressed the opinion : "There is hardly a study in the entire literature which fails to demonstrate that satisfaction in work is enhanced or that other generally-acknowledged beneficial consequences accrue from a genuine increase in workers' decision-making power. Such consistency of findings, I submit, is rare in social research. It is not really difficult to explain why participation 'works'; it is almost a matter of common sense that men will take greater pride and pleasure in their work if they are allowed to participate in shaping the policies and

decisions which affect that work."[8]

Examining participation from the point of view of alienation, the scholar states : "Research since the days of the Mayo experiments indicates that satisfaction in work is just as dependent upon fulfilment of the employees' ego needs as upon satisfaction of their physical needs. Psychologists engaged in research on participation have argued that participation, power, and responsibility on the job tend to satisfy basic ego needs. Having the power of participation implies to workers that they are equal partners, collaborators in an enterprise, rather than passive, coerced, and unwilling subordinates. Participation strengthens the belief, or creates it, that they, the workers, are worthy of being consulted, that they are intelligent and competent. When workers make the frequently bitter remark that "they don't pay you to think around here", they are really saying that their opinions are not valued, that they are not regarded as competent collaborators, but merely as living automatons, passive extensions of the machines they operate. Participation corrects this by gratifying the basic humau needs for respect, appreciation, responsibility, and autonomy."[9] He further points out : "The participating worker is an involved worker, for his job becomes an extension of himself and by his decisions he is creating his work, modifying and regulating it. As he is more involved in his work, he becomes more committed to it, and being more committed, he naturally derives more satisfaction from it."[10]

An argument against participation that is usually put forward is that workers are not interested in it, that they are interested only in wages and allowances and other benefits and that they would not like to be bothered with larger problems of distribution and sale and provision of finance and securing of raw materials and expansion and diversification. In the first place, it is not fair to make such an assumption without giving workers a chance to consider those problems. Secondly, consideration of those problems becomes necessary in order to maintain and improve wages, allowances and other benefits in which workers are admittedly interested. Thirdly, even if they are not interested, it is necessary to make them interested in order to increase

8. *Self Management*, selected readings, Jaroslav Vanek, Penguin Edition, England, p. 324.
9. *Ibid*, p. 329,
10. *Ibid*, p. 330.

production and productivity and to maintain industrial harmony. And lastly, even if all do not take interest some may, and it is not fair to deny them that opportunity. The scholar, already quoted, has an effective answer to this argument based on the apathy of workers. He writes : "If apathy were sufficient grounds for dismantling the democratic process, then we might have to dispense with political democracy altogether in the United States, for Americans are notoriously apathetic when it comes to political activity. In the presidential election of 1964 in the United States, despite the overwhelming political saturation of the mass media, less than two-thirds of the eligible voters cast their ballots for president (63 percent) and less than 60 per cent voted for congressional candidates. In no off-year election from 1922 to 1962 have so much as 50 per cent of the electorate come to the polls, and in some years, the proportion fell below one-third."[11] He points further that, according to surveys, job interest, commitment and satisfaction are all generally heightened by the introduction of various forms of participation.

The argument raises the big issue, if society is going to remain satisfied only with the raising of a gigantic industrial structure and if it is not going to take steps to humanise it. Working as hands, as adjuncts to lifeless machines, workers may create it, but without a stake in it, they may also destroy it one day out of sheer boredom and frustration. Industrial society cannot afford to lose sight of that danger, particularly if it desires to continue as a democratic society. Democracy demands its extension to the industrial field which means that those who work in industries, in the larger sense of the term, must "have a say" not only in determining the terms and conditions of their daily work, but also in determining the scope, the objectives and methods of industries in which they work. That is what participation is about in its more comprehensive aspect.

Participation Must Pervade through Entire Organisation

Participation can be at various levels and also of various types. The levels may range from the shop-floor to the board room. Participation

11. *Ibid*, p. 332.

at the board-room level without participation at shop-floor level does not prove effective. That has been the experience in India. It does not bring about any change in the methods of management at lower levels. They continue to be as arbitrary or bureaucratic as before. Participation at shop-floor level will not also prove particularly effective unless it is followed by participation at higher levels. Without the latter, decisions taken at the shop-floor level may not be implemented. Participation must, therefore, rise from the bottom to the top and the whole management must be, sooner or later, of a participatory type. Cooperation, to be effective, must penetrate the entire organisation. There cannot be co-operation at lower levels and non-cooperation or opposition at higher levels.

Dr. Mhetras has, in his study of labour participation in management, described five stages of participation: "These are: informative participation, consultative participation, associative participation, administrative participation, and decisive participation—the extent of each depending upon the quality of the management and the character of the employees."[12] Some of these stages of participation are in vogue in many concerns which enjoy the benefit of modern management. They are not regarded as participation; they are practised as essential ingredients of modern management. Some of them are also a part of collective bargaining. Participation involves decision-making, however limited the field may be. Workers will not be interested in getting information merely for the sake of getting it; they will not be also interested in consultation merely for the sake of consultation. Information as well as consultation must lead to some decision in taking which they play a part. That to them is participation—participation in taking a decision. The definition of participation that Dr. Mhetras has given fits in with that concept of workers. Participation is, according to him, "sharing the decision-making power by the rank and file of an industrial organisation through their proper representatives, at all the appropriate levels of management, in the entire range of managerial action."[13] He has expressed well the three main purposes of participation. These are "*economic*, to ensure increased production; *Psychological*, to secure full recognition of the importance of the human element in the industry and give the staff and the workers a greater interest in the general operation of the undertaking;

12. *Labour Participation in Management*, V. G. Mhetras, Manaktala, Bombay (1966) p. 18.
13. *ibid*, p. 11.

...called, in a convenient phrase, the rationalisation of industry" is proceeding at a rapid pace in the highly-industrialised communities. Standardised products, simplified processes, scientific planning of workshops, labour saving machinery, improved techniques of management are its guiding principles. Not only do the unions claim to be consulted about their application to the concrete problems of industrial organization, but they have a positive contribution to make in developing them over the whole field of production. The degree of organization they have achieved among the workers gives them the power to assume much more important functions than they have hitherto discharged .....It appears to me to be necessary for the representatives of the organized employers and of the unions to seek a mutual understanding regarding the extension of union responsibility in the matter of industrial organization .... and of the part which the workers' organizations are qualified to play in the promotion of efficiency, economy and scientific development in the production system.

"It lies with the unions, too, to assume responsibility for such representation on works committees, joint councils and boards of management as will follow the development of what I have called the politics of industry, meaning the extension of the principle of joint conference on matters of commercial policy as well as of industrial administration and the regulation of wages and working conditions. Thus, the field of enquiry and negotiation appears to be very wide once the idea of enlarging the functions of trade unions is admitted and a basis of mutual confidence established..."[14] Trade unions in India will find much to learn in these observations of Lord Citrine.

What is being attempted now in India is fairly marginal. Employers have been advised to set up departmental and plant level committees of employees to foster good relations and to consult...

and *social*, to improve industrial relations and thereby promote industrial harmony and peace."[14]

However, one more purpose can be added, the purpose of helping the establishment of a participative industrial order as a part of a participative political and social order. It is, no doubt, a long-term purpose. But without such a purpose in view, workers' participation in management will not evoke the necessary response from the more far-sighted amongst trade union and management leaders and from social and political workers who influence public opinion.

Participation will not succeed unless it receives the cordial support of the trade union movement. It will fail if it is pursued as a measure to undermine the strength and influence of trade unions. Collective bargaining and healthy industrial relations are as necessary for its success as fair wages and fair conditions of work. It is on the basis of these that participation will ensure increased production and productivity as well as cooperation between the two sides of industry.

Trade unions must realise that participation opens for them new avenues of activity and invests them with new powers and responsibilities—responsibilities such as those of increasing production and productivity and avoiding waste and stoppage of work they will have to shoulder by virtue of the bigger role that they will assume in the management of the enterprise. What Lord Citrine, for many years the General Secretary of British Trades Union Congress, wrote over sixty years back about the new role of trade unions holds good even today.

is attached to their decisions in the actual work of management. Workers will lose interest in the committees if only inconsequential matters are placed before them and if their decisions are not implemented. They will then meet with the same fate as Works Committees and Joint Management Councils. There is a feeling in many places that the committees and participation which they are supposed to accomplish are only a sop thrown to workers and at best a devise to secure increased production and productivity and that they have no larger social aim in view. On the other hand, if the Government and employers are serious about the committees and about progressively increasing workers' participation in management, they can pave the way for a harmonious and humane industrial and social order.

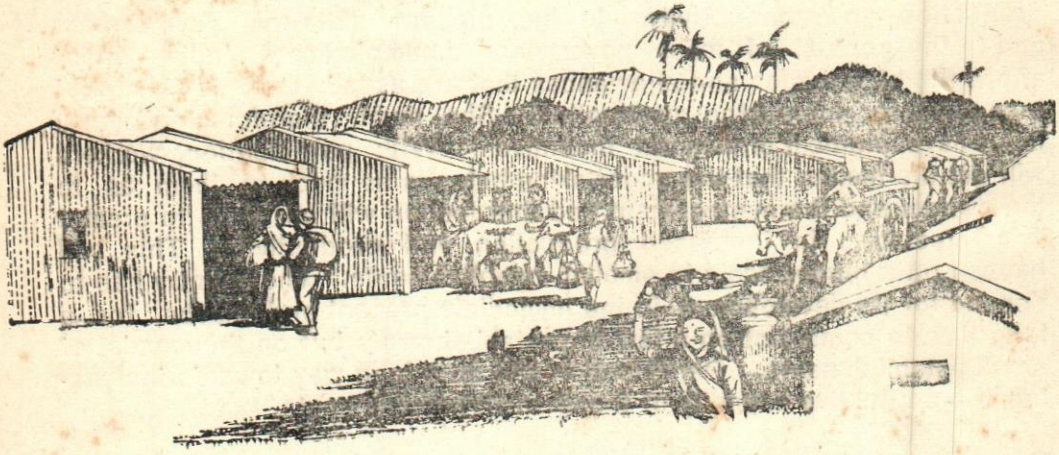
A reference will be appropriate at this stage to the teachings of Mahatma Gandhi. His theory of trusteeship has not found acceptance in practice. People, however, talk about it and some interesting efforts are being made in other countries to give the idea a concrete shape. Most interesting effort is the Scott Badar Commonwealth which should provide inspiration to enlightened Indian industrialists influenced by the Gandhian thought. It is unlikely that their number will be large and trusteeship may not provide a solution of general application. However, there are many other ideas of Gandhiji which have a deep influence on puclic mind. For example, ideas that capitalists and workers are co-owners, one contributing capital and the other labour, that a worker is not merely a means of production, and that an enterprise is a social institution in which workers and the society have as much interest as the capitalist, are current in the country and shape public opinion. They will go a long way towards creating a suitable atmosphere for the acceptance of the idea of participation. And, in course of time, participation may not remain restricted to management. It may develop into participation in ownership with workers contributing capital out of their savings. It may not happen immediately, but there is no reason why it may not in a decade or two. That can be regarded as a fitting culmination of the [illegible] that is taking place.

a new way, the third way is, therefore, obligatory upon us. The philosophy of participation in the political and in the industrial fields may show us that new way. Workers' participation in management can be regarded as a step in that direction.

A question may be asked : how India can afford participation when its most urgent need is to increase production and productivity. The simple answer is : participation is needed for the very purpose of increasing production and productivity. In her present state of development and in the context of mass poverty and unemployment, India cannot afford the high wages and allowances that are usually used as material incentives for increasing production. She must, therefore, fall back upon psychological and moral incentives. With participation, workers will get the feeling that the undertaking belongs as much to them as to the owners and the management and that feeling will stir them to greater effort resulting in increased production and productivity. This will happen on a bigger scale in smaller establishments. The country has to depend for its development, in the immediate present and, maybe, for a long time to come, not on a few big establishments but on thousands of small establishments. Participation will go a long way towards increasing the productive capacity of those small establishmets.

Development also needs industrial peace. Laws alone cannot secure it. Experience is that strikes take place in spite of laws banning them. Laws are equally ineffective against other forms of protest, such as, go-slow and work to rule. Industrial peace can be secured only through an understanding with workers, expressed through collective bargaining, participation and other forms of cooperation. Participation has a high place in these forms of cooperation as it provides a solid base for harmoinsing the interests of workers and employers. □

As one village died, a new one was born.



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Workers' Participation in Industry : Need for Proper Perspective

M. V. Arunachalam*

For all intents and purposes the schemes of Shop Councils and Joint Councils announced by Government in December 1975 aim at creating all those congenial conditions in industries that go to increase production and enhance productivity. The Shop Councils are to function, keeping in view the interests of increasing production, productivity and overall efficiency of the Shop Department. The Councils are slated not only to assist the management in achieving monthly/yearly production targets but also improved production, productivity and efficiency including elimination of wastes and optimum utilisation of machine capacity and manpower. They are specifically expected to identify areas of low productivity and take necessary corrective steps at shop level to eliminate the contributing factor. Likewise, the Joint Councils are required to deal with matters relating to optimum production, efficiency and fixation of production norms of man and machine for the unit as a whole and with matters concerning the unit or the plant in respect of matters relating to work planning and achieving production targets—more specifically tasks assigned to Shop Council at the Shop/Department levels.

Effective Utilisation of Human and Material Resources : Basic Aim of Participation

If this is the perspective, and it cannot be otherwise, a number of commitments automatically follow. First and foremost, it implies a harmony within the enterprise in which the interests of each individual and group can find expression in tangible things like efficient running of machines, increased production, quality control etc. Participation in industry, in this sense, can be regarded as an important training of individual to develop his capacities for participation at higher level. But effective utilisation of human and material resources of the enterprise is the basic objective of the participative schemes we have opted for.

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The underlying postulates of the schemes obviously are that workers in the unit, wherever placed, have ideas which can be not only useful but fruitfully utilised. This simple form of participation may lead to effective communication upwards that is essential to sound decision-making at the top. Moreover, workers may accept decisions better if they have participated in them and when they know that they share in decisions that affect them. There cannot be two opinions on the point that workers may work more intelligently if through participation in decision-making they are better informed about the reasons for and the intention of a decision. It is also equally true that workers' participation may foster more cooperative attitudes amongst workers and management, thus raising efficiency by improving teamwork and reducing loss of efficiency arising from industrial disputes. It is maintained that the satisfaction of human needs for participation and the recognition of the employees' right to be treated as intelligent human beings desirous of controlling their own destiny will increase efficiency by increasing their willingness to work and to contribute their best to the enterprise.

Workers—A Special Kind of Factor of Production

To advocate workers' participation in management as a means of improving efficiency thus implies a view of the workers as a special kind of 'factor of production' with certain peculiar characteristics which must be taken into account if it is to be used with maximum effectiveness. Here we enter the most sensitive but very important field of beliefs and attitudes of workers towards the participatory arrangement. After all, our involvement in any action-oriented system, like the participation in industry, is predicated on our own belief-attitude complex. If the commitment is with reservations, any scheme, howsoever good-intentioned, is bound to flounder. On the other hand, uninhibited participation will yield unexpected results, howsoever complex and difficult its operation might be.

It must, therefore, be realised that reliable information on workers' attitudes is vital to effective implementation of the two schemes announced by Government. The workers' and managers' propensity to participate or cooperate in translating an ideological objective into a feasible goal is dependent upon two factors : willingness to participate and ability to participate. Many of our schemes have not taken off the ground

because workers' willingness to participate in management is usually taken for granted. It is naturally pertinent to ask several questions : In what aspects of management are the workers, in fact, interested ? Are all workers interested in all aspects ? Are all workers interested in all aspects or are certain aspects of little interest to some categories of workers and more to others ? While we might be tempted to assume, *a priori* the interest of the workers in the running of the enterprises, and their desire to be in some degree associated with the framing of decisions that affect them, a number of investigations carried out in recent years in different countries make this appear more than doubtful. For instance, a study of some Paris office workers in France led the investigator to think that participation in decisions and consequently in responsibilities would be in general rather suspect as a menace to personal liberty and moral ease, at least at the lower levels of the occupational hierarchy where, in the main, attitudes of withdrawal and indeed of passive resistance are regarded the best safeguard. It is, therefore, important that a meaningful study of the reaction pattern of workers is conducted so that the impediments in the working of the schemes are removed.

While on this point, it is essential to distinguish between the views of workers' organisations and the attitudes of workers themselves, both those who are members of such organisations and those who are not. Apart from the merits of various ideological and political positions, and even when these issues have been settled in favour of a particular system of participation, reliable information on workers' attitudes is important. Institutions that ignore workers' attitudes are likely to breed apathy and frustration. It is important to know not only the proportion of the work-force holding various attitudes, but also the extent to which there are differences between various groups and types of workers.

Need for Periodic Evaluation of Participation Schemes

The National Productivity Council is the right institution to carry out objective, competent opinion surveys that can provide more comprehensive information than individual opinion or hearsay and can supply a check on bias and propaganda. Periodic evaluation of the working of the Shop and Joint Councils, wherever they are set up, would help not only to improve the contents of the scheme but would also encourage those

units which are in the process of setting them up.

Reaction-pattern analysis apart, one important ingredient of evaluative studies is to enquire on the effects of workers participation which are likely to be quite complex and probably differ in some respects from the effects intended by Government. In certain circumstances, some of the effects may even run in the directions opposite to that hoped for. The effects of workers' participation in industry in the early stages of its installation are also likely to differ from its long-term impact.

In considering the effects of workers' participation from a functional standpoint, we may ask first whether the practical working of these schemes in a given context is functional in terms of the needs of the enterprise itself. In other words, to what extent does the workers' participation in practice contribute to certain specific goals such as efficiency, quality of production, innovation, expansion, etc. The exact point that has to be appreciated, therefore, is that by deepening our understanding of the factors which govern its effects, this evaluative research should help policy-makers and practitioners to formulate realistic goals for workers' participation. By analysing difficulties experienced in the practical operation of workers' participation, the research will direct attention to action that needs to be taken if workers' participation is to achieve its intended goals. The research may also indicate the kinds of training that may be required to enable managers and workers to operate a system of workers' participation effectively.

The limited experience that we have of the working of Shop and Joint Councils brings into sharp focus the problems arising out of the multiplicity and intra-union rivalries. The experience also unfolds the truth that, howsoever utilitarian an idea may be, unless trade unions lend their full support to its implementation everything will be lost in the wilderness of return-submitting and paper work. Trade unions, therefore, have not only to accept full commitment to the schemes but also close down their ideological differences with sister organisations. After all, higher level of production is not a sectarian issue; it is a national commitment and economic compulsion. They have also to get away from the traditional outlook of treating all management action as suspect. Management is a multi-faceted arrangement of running an enterprise. And it is fundamentally wrong to believe that unless one shared in the financial management all other associations become a mere show business. Decision-making,

after all, is not a strait-jacket affair : implicit in it are various decision levels and there is involved a progression from shop-floor level through department to the Board of Directors. Higher the level of decision-making, complicated are the processes and training and experience become the primary considerations. It is, therefore, better to begin at grass root level than not to begin at all. What could be a better way to begin than to participate in achieving better results out of the labour-machine joint on which lies the ultimate salvation from want. As the experience accumulates, a creative atmosphere will set in for the introduction of the workers' sector in industry that is being talked about so much now a days. Let some progress be made and once the process begins the progress will create its own dynamics.

Important Issue of Sharing Gains of Productivity

The issues surrounding the participatory schemes have really come to grief not mainly on account of lack of enthusiasm on the part of workers or managements, but primarily due to the controversy centering around 'sharing the gains' of enhanced productivity. The confusion has emanated from a narrowed construction of the inter-play of the various factors of production that finally leads to increased levels of productivity. But everyone must realise that productivity growth is not a matter of concern for workers alone. Productivity rises or falls with changes in technology, with management skill and with the quality, flow and availability of labour, and capital resources in an economy. It is affected by the effectiveness of Government providing a proper climate of economic, political and social justice, e.g., law and order, public services, trade policy, to encourage all factors of production towards increasing productivity. It generally increases with the size of the market upon which production economics often depend. It increases more during business expansion than contraction. And, in the broader perspective, it is affected by the relative changes in the productivity in all other countries with which a nation's trade is significant.

It has also to be conceded that we have not been able to devise viable schemes for sharing the gains which are acceptable to all. We have tended to ignore two important constituents of industrial operations, the consumers and those sections of our labour force which do not have any means of sustenance. Our aim for coming decades should, therefore,

be to divert all extra gains to further productive uses so that not only more employment opportunities are created but cheaper goods are available to the masses.

This also is a pointer to the proposition that managements too need reorientation of their views. Like workers, they have attitudes that are more or less favourable to participation or perhaps completely opposed to it. The capacities of managers, therefore, to operate a system of workers' participation are just as important as workers' capacity to contribute to managerial decisions. Managers, of course, cannot be expected to adapt to unfamiliar forms of organisation and decision-making overnight, but the compulsions of time demand that they learn.

Evolution of industrial organisations towards a participatory enterprise will be a process of social learning, the outcome of which cannot be foreseen. It can, however, be safely concluded that participation, by its nature, must be dynamic, leaving room for several alternatives. If the outcome of participation were predictable, the hands of the participants would be tied in advance. This is the Achilles' heel of participation. Yet, efforts must be made to remove the uncertainties and to make the schemes operate in as realistic a fashion as possible. □

Participative Management : How to Ensure Its Success ?

S. D. Punekar*

"Participative management", in actual practice, may mean labour participation in management of industry It is application of industrial democracy in its three characteristics—association of workers and management, basis of equality and voluntarism. This concept is the antithesis of master-servant relationship. It is also in contrast to the state intervention in labour matters, which is in evidence in India, particularly after Independence.

Concept

The concept of participative management rests on the principle of co-partnership between management and Labour. Under this principle, decisions relating to the concern are taken by both the parties and are not unilateral. Each party should have respect for the other's bona-fides and should co-operate with it in the right spirit of making the common concern successful.

The concept of participative management has recently been brought to limelight by the 20-Point Programme announced by the Prime Minister on July 1, 1975. Point 15 of this Programme relates to this concept and it states : "Schemes for workers' participation in industries, particularly at the shop-floor and in production programmes, will be finalised." To facilitate the implementation of this programme in action, the Ministry of Labour, Government of India, brought out a scheme for workers' participation in industry at shop-floor and plant level on October 30, 1975. It is now more than a year since the announcement of the draft scheme. From a recent survey, conducted by *Samachar* (our national press agency), it seems that the scheme covers nearly 25 lakhs of industrial workers employed in such industries as steel, aluminium, copper, fertiliser, mica, cement, textiles, paper, sugar, footwear, jute, glass, firebricks and engineering. Participative management has thus already become a success quantitatively. It may, however, be worth

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considering the measures to make participative management successful qualitatively and also on a permanent footing.

One way of assuming success of participative management is to review the earlier measures taken in this field and to see that the mistakes which led to their failure do not occur. Participative management, in its rudimentary form, commenced with Independence and we have at least two experiments in the forms of (a) Joint committees and works committees (1946-47) and (b) the joint management councils (1958). Both these experiments met with failure and it is worthwhile to find out the causes of their failure, so that they might be carefully avoided in the third experiment we are now having under the 20-Point Programme. Besides, consideration need also be given to the pronouncements of the Five-Year Plans and the Code of Discipline in this respect.

Earlier Experiments

The Bombay Industrial Relation Act, 1946 provided for the settting up of the joint committees, to maintain a regular channel of employer-employee communication and to secure speedy consideration and removal of difficulties of the day-to-day work. Under the U. P. Industrial Disputes Act, 1947, the State Government undertakings employing 100 or more workmen and co-operative undertakings are required to form works councils. Both the Joint committees and the works councils failed, as can be seen from statistics about them, main reasons for failure being indifference of both the parties and general hostility of trade unions.

Works Committees

The Industrial Disputes Act, 1947 (section 3) requires an industrial establishment with 100 workers or more to set up a works committee. if so directed by the State Government. The committee is "to promote measures for securing and preserving amity and good relations between the employer and workmen and, to that end, to comment upon matters of their common interest or concern and endeavour to settle any material differences of opinion in respect of such matters." These words

taken from the Act indicate the main duties of the works committee as: provision of an industrial relations machinery for labour-management co-operation; collective bargaining agency for the two parties ; and a grievance procedure machinery. The works committee, in addition, can serve as a joint committee for matters like health, safety, welfare, and production, as well as a training centre for potential internal leaders.

The works committees failed for various reasons; opposition by trade unions, assignment of minor functions, exclusion of collective bargaining issues, lack of interest among workers, hostility of the middle supervisory personnel, reluctance of management to deal properly and the lack of competence shown by the workers' representatives on the works committees.

Joint Management Councils

The second experiment in participative management started in 1958 with the establishment of Joint Management Councils. These come into existence as a result of our acceptance of the socialistic pattern of society as the goal (1954); Indian Labour Conference's recommendation to encourage participation of workers in industry (1955); the Industrial Policy Resolution's statement—"In a socialist democracy, labour is a partner in the common task of development and should participate in it with enthusiasm" (1956); and the second Five-Year Plan's observation (1956-61) "For the successful implementation of the plan increased association of labour with management is necessary. Such a measure would help in (a) promoting increased productivity for the general benefit of the enterprise, the employees and the community (b) giving employees a better understanding of their role in the working of the industry and the process of production, and (c) satisfying the workers' urge for self-expression, thus leading to industrial peace, better relations and increased cooperation".

The immediate causes were the report of a tripartite study group, which went to Europe and recommended a scheme for participative management (1957) and a model agreement regarding establishment of such councils (1958). The objectives of the JMCs were : (1) to improve the working and living conditions of employees ; (2) to improve productivity; (3) to

encourage suggestions from employees; (4) to assist in the administration of laws and agreements; (5) to serve generally an authentic channel of communication between management and employees; and (6) to create in the employees a live sense of participation. The councils are to be consulted by the management on administration of standing orders, introduction of new methods of production and closure, reduction in or cessation of production. They have the right to receive information, discuss and give suggestions on general economic situation, state of the market, production and sales programmes, organisation and general running of the concern methods of manufacture and work, annual balance sheet and profit and loss statement and long-term plans for expansion, reemployment, etc. They were to be entrusted with responsibility in respect of administration of welfare measures, supervision of safety measures, vocational training, apprenticeship schemes, schedules of working hours, breaks and holidays and rewards for suggestions. Matters of collective bargaining like wages, bonus, etc., were excluded from the scope of the councils.

The experiment failed because of various reasons such as the lack of interest shown both by the public and the private sectors in conducting the experiment, non-applicability to large concerns, lack of proper definition of participation, exclusion of important functions from the purview of the councils, absence of the spirit of participation and strained labour-management relations.

The Present Experiment

The "Scheme for workers' participation in industry at shop-floor and plant level," announced on October 30, 1975 is a draft scheme and is "flexible so as to allow variations to suit local conditions." Initially it will be implemented through executive action, rather than legislative sanction. In the first instance, it is implemented in manufacturing and mining industries, in units having 500 and more workers. Participative management is at two levels—Shop Councils at the department level and Joint Council at the plant level. Both the councils will have an equal number of employers' and employees' representatives, the latter being elected through a prescribed procedure. The decisions, which are to be by concensus (and not by voting) are mandatory. The functions of the Shop Council include:

a) Safety measures in the department;

b) General discipline in the department;

c) Working conditions;

d) Welfare and health measures as to the working in the shop or department;

e) Elimination of fatigue;

f) Production issues such as raw materials planning, work allocation, production programmes and norms on work-related behaviour including type and quality of supervision, on-the-shop training etc, and

g) Any other matter referred to the shop council by the management or the recognised union or the joint council.

The functions of the Joint Council are:

1. problems affecting more than one department or shop.
2. problems emanating from shop councils which remain unresolved;
3. matters concerning the unit or plant as whole in respect of issues in connection with work planning, work-load manning;
4. development of skills and abilities of workmen, including abilities consistent with the training and development budget;
5. general administration of standing orders including their amendment if and when needed;
6. preparation of schedules of working hours and break-up of holidays;
7. payment of rewards for valuable suggestions received from workers.
8. matters relating to purchase of raw materials and their economic use, including improvements in quality;
9. general health, welfare and safety measures for the unit or plant; and
10. any other matter agreed upon by the employers and the recognised union or the workmen's representatives, as the case may be.

Three Experiments Compared

The shops/joint councils scheme appears to be an improvement over works committees/joint management councils in three respects:

(1) The decisions of the former are mandatory and hence whould be implemented. (2) The concept and levels of participation have now been clearly defined, eliminating the earlier confusion. (3) The participation has gone down to the shop-floor.

There are, however, some drawbacks still left. These drawbacks and the measures for their removal are:

(1) Probable opposition by the trade unions; this can be minimised if the representative trade unions play an important role in making the shops/joint councils a success.

(2) Lack of interest shown by workers; this is due to the exclusion of important topics (like wage, bonus, etc.) from the purview of the councils; the trade unions, to whom these topics have been assigned, can convince the workers about the exclusion of collective bargaining issues. If the workers' representatives on the councils are trade union members, the conflict should not arise. In any case, it should be the duty of trade unions to encourage the workers to take an active interest in the councils by electing their proper representatives and ensuring that the experiment is made a success.

(3) Hostility of middle supervisory personnel can be minimised by giving due representation to these people on the councils.

(4) Indifference by the management can be overcome by making them an active partner in the experiment, which, if successful, would benefit both the parties.

(5) The deficiencies in the representation of the management and workers on the councils can be removed by proper training programmes, especially arranged for them. By such training, a congenial atmosphere for participation can be created, the various aspects of participation properly defined and probable causes coming in the way of participation management could be removed.

Conclusion

Fortunately, many big concerns, both in the public and private sectors, have opted for this experiment. As a part of the 20-Point Progaramme, participative management must be a success. To ensure its success, it is necessary to identify the causes of failure of works committees/joint management councils and to eliminate them. Such a line of action would ensure success of the new experiment in participative management.

□

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Workers' Participation in Management : An Overview

N.K. Somani*

Every new idea developed as a result of a refinement in the management sciences floats around in the managerial world in various phases, before it is applied in real-life situations in industry. These phases vary from a superficial and fashionable flirtation with the concept in the Board room epilogues to a gingerly application of the same under planned observation. Workers' participation in management is an idea in the same embryonic stage in our country whose desirability is being now widely accepted and which is being talked about a great deal. However, no adequate scientific planning and careful thinking seem to have gone into the greater aspect of grafting this new idea to our industrial body.

A great deal of attitudinal changes is necessary both on the part of the establishment and workers as well as trade unions to enable the industrial society to start this long and fruitful journey towards participation. Before any serious attempts are made to educate the large mass of workers in respect of their importance to the economy and to the unit they work for, decision-makers at the top level would have to apply their minds to determine the genesis and logic of workers' participation. It has to be clearly brought out both at the level of the trade unions as well as company managements as to why workers' participation is necessary at all. Is it because we would like to join the endless stream of wreath-layers to the new Rajghat of the 20-point programme ? Is it because we can buy some more time from the respective trade unions with whom we deal at least once a year ? Do we wish to introduce this system because the Government of the day wants us to do so ? Unless we clarify these issues in our minds and are entirely convinced that participation is gainful for both workers and industry, not much is likely to be achieved in respect of the results on an abiding basis.

If we decide that this participation is good and healthy, then we would have to go into the sociological and cultural patterns of the Indian society. Our culture has thrown out largely paternalistic

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attitudes both within the factory as well as family worlds. In spite of several highly visible cases of failure of industrial relations as a result of myopic and paternal interest taken by various managements for the welfare and interest of their workers, there seems to be very little change in our attitudes to deal with these problems in an objective and institutionalised manner. Whenever this benevolent policy framework fails, management goes to the other extreme of applying the ruthless tactics of a cold war which hardens attitudes all round—which is no solution to any problem at all. Foremen, Superintendents and even Managing Directors go to a worker's quarter to condole a death in his family. At the same time, there is no secular attempt to establish healthy and harmonious relations based on clearly defined policies and practices. There is enough research and documentation on this subject which needs no further space presently.

Some Western Experiences

Before we consider seriously the scenerio of workers' participation at various levels, it would be useful to recall a few Western experiences in this field. While patterns differ importantly in Sweden, Great Britain and the United States, the trend towards cooperation is growing in all these three countries in their own way. A feature in the *Harvard Business Review* (May/June 1976, entitled "Workers' Participation : Contrasts in Three Countries") points out that in 1974, Ford Foundation took half a dozen production workers from the U. S. auto assembly lines and placed them in self-managing work groups in Sweden. The Americans did not like it at all. Even the British comments regarding the Swedish experiments dismiss the experiment as a typical Swedish attempt. While workers in these respective countries are engaged in the manufacture and assembly of the Volvos, MGs and Buicks which may have wheels, fenders and horns in common, these workers are products of quite dissimilar work situations and react in their own typical manner.

Most of the progress in Swedish participation has occurred since the late 1960s when emphasis on the "quality of life" was brought into sharp focus. Industries started to have trouble in recruiting young workers as a result of numerous factors. While one is apt to dismiss

the claim that Swedish workmen are the country's most precious national assets and the reason that they have such a high standard of affluence is due to their working very hard, the fact remains that in Sweden the overall good of society is a far more compelling incentive than the demands of a single individual. While in the early twentieth century workers and trade uinons had conceded the rights of the management to hire and fire workers and to apportion the work amongst them, this right was taken away in 1972 as a result of a new legislation that makes employees virtually non-dismissable after 6 months. In 1973, Sweden introduced the employee-director law calling for direct election of blue-collar and white-collar representatives to the Board of every company having more than 200 workers. Since 1975, companies are required to give works councils full access to all financial figures and also assistance of a financial consultant if they do not understand the figures appropriately.

While the British managers complain that the Swedish workers waste a great deal of time in committee meetings and confabulations always at company expense, it is considered not only a social imperative in Sweden, but a factor which pays for itself in the long run. The participative movement there does not confine to the shop-floor. A highly-publicised Volvo programme has several structural aspects that give credibility to the idea of participation in an assembly line environment.

The British system is a class struggle based on the adversary roles of collective bargaining. The "they *v/s* us" outlook is extremely strong while the establishment of working class solidarity gets much more emphasis in the British industry than in Sweden. The current legislation is now making it compulsory for all workers to join a union. The perquisites enjoyed by the managers are defined vigorously and followed by the unions themselves. Meals are served separately in the workers' canteen, foremen's room, junior staff room, senior staff room and the executive dining room. The study goes on to establish that class barriers still stand very vigorously in Britain. Presently there is very little law requiring employee participation. However, the outlook is rapidly changing now and all the three major political parties included the workers' participation in the 1975 election manifestos A handful of companies started this practice in real earnest and have made it clear that they regard real participation as an imperative.

In the U. S. with its huge, highly skilled and mobile work force, the attitudes towards participation are varied. Americans tend to give a fairly narrow definition based on a management style with overtones of Douglas McGregor's theory. Complete freedom to lay-off and retrench is another aspect which makes unions and workers themselves rather wary of job enrichment and abounding enthusiasm in raising productivity.

Certain common features emerge from this study of three different working cultures. One is the growing desire from the workers for greater involvement in decision-making, thereby obtaining a greater satisfaction from work. While management responses will be different in every country and probably in every company, the trend, however, seems to be fairly towards the participative management on an international basis.

The Home Scene

Coming back to our own scenario at home, when decision-makers talk about inducting workers into decision-making processes, they ought to be clear in their minds as to what is desirable and feasible. Intra-union conflicts apart, the low level of education and lack of any decision-making exposure at all make these exercises a very premature one, at least presently. We should also not tend to overlook the sore fact that a large body of middle and higher level managers, viz., officers in various companies are suffering today from a lack of authority and decision-making opportunity. These officers are vegetating largely as post offices between the top and bottom of the company and their cumulative frustrations and the lack of security are driving them towards militant trade-unionism. It is hoped, therefore, that this particular imbalance will be restored as a necessary concomitant before involving the workers at higher levels.

A great deal of research has also been done in the field of dependency in Indian Culture (Please see Dr. Gouranga P. Chattopadhyay's articles in *Indian Management*, Sept./Oct. 1975 and other studies). All these studies tend to indicate that an average Indian would not like to take a decision if he or she can help it. This also points out the genesis for this kind of avoidance of responsibility, the remedy for which begins

when the child is born and the environment in which he or she is brought up. A great deal of our attitudes towards work and specially team work and taking decisions that rightfully belongs to us will have to change before our work culture is improved.

Quite clearly, one has to commence to educate the large body of workers in respect of their elementary matters like quality consciousness, cost reduction, company image, good house-keeping, wasteful practices, absenteeism, alcoholism etc. This would be a good beginning.

Does a worker know the amount of money involved if a ton of paper is rejected at the final stages as a result of careless handling or lack of quality control? If he were to be told that the loss to the country's or company's economy would exceed Rs. 3,500 per ton, he may suddenly become very proud in being careful to handle so much money. If a quality supervisor in an exporting textile mills knows that foreign exchange and the country's name is involved if faulty/sub-standard goods are produced and sent abroad, would he not react differently ? If a lack of supervision or vigilance results in the manufacturing and marketing of sub-standard life-saving drugs, would not a patient die ? If valuable steel-making furnaces and other equipments are not maintained properly (as per clearly-defined schedules), the country's steel-making and foreign exchange will suffer an amount of Rs. X per day. I believe, there are such matters that the workers (both individuals and groups) will handle with a great degree of realism and responsibility if they know how important a job they are doing.

So much for this kind of information or involvement. There are many other matters of company's interest, the administration of which should be left to the workers and their representatives. Let us take the case of mass exodus during summer months and regular bouts of absenteeism. No industrial economist has yet worked out additional costs to industry by these vents, which forces establishments to hire *badlis* and casuals on a regular basis. If only a part of these additional costs could be offered on a rational basis to workers, they would certainly not make regular forays to non-working activities. Some educational programme should be launched to dissuade workers and their families to go to "*muluk*" or "*Desh*" for deaths of distant relatives, religious rituals, ceremonies, etc. In any case, the workers

(as a group) of a particular department have to be given a clear responsibility of producing a certain quantum and they should design the leave periods of various sections (barring emergencies) and individuals with an eye on the ability to deliver the goods. This is expected to improve the overall attendance and willingness to work.

There are many disputes and offences on the shop-floor which lead to unnecessarily rigid positions in the present set-up. The foreman/shift-incharge, in many cases lodges a formal complaint which is then sent to the labour department. As soon as an event is formalised, attitudes harden up and "they *v/s* us" starts boiling up. One always wonders as to why all supervisors/managers at plant level do not equip themselves as "labour officers" in the sense of defusing the event and settling the matter then and there Even in such episodes, where offences of a serious nature are not involved, it would be prudent and wholesome if workers' units are entrusted with the task of grievance redressal. These then would become insignificant family affairs and are likely to be settled across the board. This is another area where meaningful participation of workers is worthy of trial.

A lot of bad blood occurs when the same person is compelled to attend to the night shift production. This ennervates the worker. The morale of the third shift is invariably the lowest in the world as it is. This need not be so. It workers themselves are involved in allocating shifts to individuals and groups, they would keep in mind the various issues involved. A rotation would also occur to the improvement of all.

Repetitive work of an assembly nature always fetches boredom and lack of interest. Group therapy in this area has always provided better results. Job rotation and even job enrichment are matters where workers can be better judges of their colleagues than the world's best assessors or programmers. Why not leave it to them?

Corporate programmes in the field of social welfare suffer generally in our country as a result of anaemic support from workers. Family planning, better house-keeping, health projects, training for better skills, abstention from gambling and alcoholism, sports, recreation—are areas where unilateral decisions do not always click. Each area by itself is a major avenue for achievement. The welfare officers make

up reports and manage to spend allocated budgets somehow. This should not be enough. Workers and their families are clear candidates for selling the idea and helping companies to implement these desirable projects.

One more area to ponder. Every company has a number of projects sponsored and supported in the shape of consumer cooperatives, housing facilities, medical and other cultural activities. Today, even a Satyanarain Mahapuja's permission has to be obtained through various levels. Most of the other projects are designed by officers who are remote from the life and culture of the workers. These activities can best be managed by workers themselves.

One may not get the impression that a distinct attempt is being made to put off workers' participation in management by perusal of the foregoing suggestions. One woul like (a) the environment to be created whereby the workers would be exposed to decision-making processes over a period of time and a galaxy of manageable issues and (b) the restoration of workers and officers to their rightful places in the interest of a more rapid socio-economic development through illustrative examples in this presentation. Only then, in future, can we venture out to get workers intrinsically involved in the complex process of management at higher levels. □

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Workers' Participation in Management : In Retrospect

D. C. Kothari*

The concept of workers' participation in management, till recently, was considered to be a contradiction in terms by critics who viewed industrial relations only in terms of strife between workmen and management. In reality, however, participation or consultation in many areas has been often the rule rather than the exception. While it is true that there was once a great deal of suspicion between the two groups as there is between any two groups of competing interests, it is also true that both labour and management have matured to some extent during the last two decades. This limited maturity of relationship has opened up areas where mutual interests result in effective participation. Where participation has been successful the parties have generally started realising that neither is destined to disappear or even weaken and each group's own best interests can be served by maintaining peaceful relations and active participation.

Review of Past Experiences

In India, the results flowing from different forms of participation at various levels have continued to be a subject matter of controversy. The enactment for the constitution of the Works Committee under the Industrial Disputes Act, 1947 was one such move in that direction. The works committee was intended to promote measures for securige and preserving amity and good relations between the employer and workmen and, to that end, to comment upon matters of their common interest or concern and endeavour to compose any material difference of opinion in respect of such matters. However, it was never intended to supplant or supersede the unions for the purpose of collective bargaining or to consider any real or substantial changes in the conditions of service. Conditions of work such as ventilation and lighting, amenities like drinking water and canteens, safety and accident prevention, adjustment of festival and national holidays, educational and recreational activities, etc., were among the subjects falling within the

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scope of the Works Committee. Matters such as wages and allowances, bonus, rationalisation, retrenchment lay-off, etc., were excluded from the purview of the Works Committee. However, it was generally admitted that the contribution of the Works Committee was far from satisfactory owing to factors like inter-union rivalries, union antipathy and the attitude of members in trying to raise extraneous matters in the Works Committee discussions. Conflict between areas of operation of Works Committees and Unions and the helpless position of the Managements was also said to have led to this failure.

The avoidable friction due to unilateral introduction of changes in certain conditions of service likely to adversely affect the workmen was further sought to be avoided by introducing Chapter II A in the Industrial Disputes Act during the year 1957, by which the employer was required to give clear 21 days notice of the proposed change to the concerned workmen on matters of wages, allowances, hours of work, rest intervals, holidays, leave, rationalisation, shift working, etc.

Besides the Industrial Disputes Act, the Factories Act, 1948 has also provided for participation of the workmen in certain matters of decision concerning the workmen. It has provided for the constitution of the Canteen Management Committees with representation of the workmen. Similarly, in the matter of granting annual leave with wages to workmen without affecting continuity of normal work, the Factories Act has provided for evolving a scheme by the employer in consultation with the workmen through the Works Committee or such other committees. As regards festival holidays to be granted to the workmen, the statutes on national and festival holidays in a number of states provide for consultation of the workmen in choosing the festival holidays for the unit, and once so chosen, any change of festival holidays is to be made only in consultation with the workmen.

Experience shows that, excepting in certain limited areas where the workmen did not have to undergo any additional responsibility or strain, participation has been seen merely on paper rather than in action. Even in institutions such as Employees' Cooperative Stores or Employees' Cooperative Credit Societies which offer maximum scope for real participation on the part of the workmen, the experience is in no way better and it is well known that the administration and the services in Cooperative Institutions managed on authoritarian lines have been relatively

more stable and sound than those institutions managed on purely democratic or participative lines. Of course, this is no indication that participative management never meets with success. It only means that the rank and file in most of the industries have not yet attained the maturity to undertake the responsibilities of management. The various committees constituted under statutes or voluntarily such as Works Committees, Unit Production Committees, Welfare Committees, Safety Committees, Canteen Management Committees, etc., have only functioned mostly as Grievance Committees or Demand Committees and have ultimately failed to accomplish the desired results due to lack of maturity and understanding on the part of workers' representatives.

Deeply concerned with the discouraging results of the functioning of the Works Committees and other committees, the Planning Commission while considering the Government of India's policy on labour for the Second Five Year Plan had emphasised the need for the creation of industrial democracy through increased association of labour with management. The Study Group, constituted for the purpose, examined the conditions obtaining in the industries and the results of various experiments on participative management in other countries and suggested that Joint Management Councils may be set up in industries for consultation on standing orders, retrenchment, rationalisation, closure, etc. Such Joint Management Councils were set up in 1959 on an experimental basis in certain selected industries, where the essential industrial climate for effective functioning of such councils was comparatively favourable. The scope of these Councils was extended to receive information and to give suggestions regarding the general economic situation of the undertaking, organisation and methods of work, long-term plans for expansion, etc., as also administration of welfare measures, supervision of safety measures, operation of vocational training and apprenticeship schemes, etc. The Study Group had specifically excluded all matters like wages and bonus, which are subjects for collective bargaining and individual grievances, from the scope of the Council. It said, "in short, creation of new rights as between employers and workers should be outside the jurisdiction of the Management Councils." This scheme was based on the assumption that given an opportunity, the workers can participate effectively in the decision-making process at least in certain spheres. The primary aims of constituting such Joint Management Councils were: (1) promotion of productivity for the benefit of all concerned; (2) giving employees better

understanding of their role and importance in the working of the industry and in the process of production and (3) satisfying the urge for self expression. However, in practice the performance of the Joint Management Councils was found to be no better than the Works Committee.

New Scheme : Need to Make it Success

The scheme of Workers' Participation in Industry, formulated in pursuance of the Prime Minister's 20-Point Programme, is yet another attempt towards ensuring higher productivity through increased and effective participation by the workmen in the management. The scheme, generally speaking, is nothing but the old wine in a new bottle, excepting that separate Councils are to be formed at the shop level and also at the undertaking level.

It is not the form that matters, but the spirit in which the scheme is accepted by the parties which would really lead to its efficient functioning. It has generally been felt that in the present context of multiplicity of trade unions and in the absence of a single strong trade union in an atmosphere which lacks right attitude towards industrial relations, any undue emphasis on workers' participation in management, when the time is not yet ripe for it, may not yield the expected results. However, it is necessary to keep on striving to obtain the necessary environment to enable this to be done and to once again give a fair trial to the scheme in the present changed atmosphere with an open mind and to make a fresh start with the aim of achieving the ultimate goal of industrial democracy.

Viewed from the experiences in the past, it would be advisable for the parties to bear the following points in mind to make this joint venture mutually beneficial and to make participation worth its name.

1. The parties should be fully aware of their duties as they do about their rights and confine themselves to the subject matters enumerated in the scheme for discussion in the various councils. Care should be taken to see that these councils are not once again reduced to grievance councils as in the past or to mistake them for forums for collective bargaining.

2. The trade unions should get reconciled to the idea that these

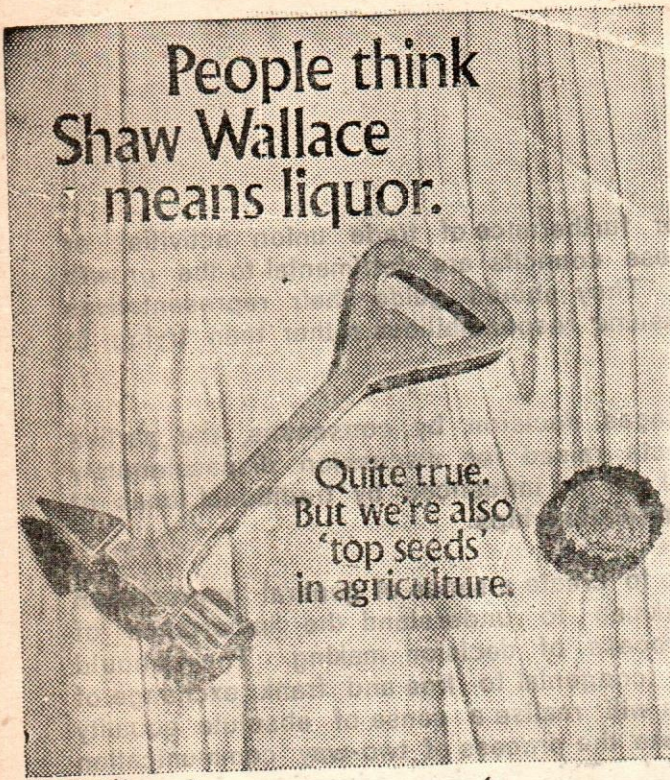
councils are not intended for furtherance of trade union activities or that the constitution of these councils are detrimental to the growth or survival of trade unions. They should guide their representatives in the various councils to assume responsibilities rather than trying to put spokes in the wheel.

3. Since the scheme envisages decision by consensus, the parties should consider the subjects raised for discussion dispassionately and with an open mind and not be influenced by traditional ideas of class conflicts or inter-union relationships.

4. Managements should help to create a sense of general appreciation and interest amongst workmen to understand the importance of their participation in the process of decision making. They should also create an atmosphere congenial to free and frank exchange of views where representatives will realise a sense of absolute equality and mutual trust and thus make the process of two-way communication more effective and purposeful. This requires education of workmen in general and the representatives in the councils in particular on the need to accept new challenges in the changing times.

5. Even though individual grievances are kept outside the scope of the councils, adequate care should be taken by the managements to see that individual grievances are settled as expeditiousiy and amicably as possible through formal or informal grievance procedures and that the general atmosphere is not vitiated.

6. The workmen should be made aware of their responsibility in nominating or electing responsible and enlightened representatives to speak on their behalf and also to take bold decisions. □



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Workers' Participation : Rationale and Challenges

A. N. Saxena*

Nation's quest for a new socio-economic order depends on the structure of the economy, its institutions and the role which different segments of society play as prime movers of the economic apparatus. The present mood in the country provides a congenial climate for higher productivity through a better appreciation of the role and responsibilities which the working class can discharge in accomplishing this mighty task. Our beloved Prime Minister, while inaugurating the National Convention on Productivity on 10th November 1976 in New Delhi, reiterated that:

> "Economic growth is not a figure but the indicator of greater socio-economic justice. This emphasises the need for measures to increase productivity in an atmosphere of mutual trust and commitment. With this in view, we announced as one of the items of 20-Point Progrmme a scheme for workers' participation in industry at the shop-floor and plant level. I attach high importance to this experiment in industrial fraternity. It will help productivity. I hope it will deepen our democracy."

In the entire gamut of participative process a few questions which remain unresolved are:

(i) The objective of participation ?

(Ii) Participation for whom ?

(iii) Who has the final power to decide ?

(iv) Role of Trade Unions ?

For a better appreciation of these vexed questions, an attempt has been made in the following paragraphs to have a retrospect of the experiment carried out so far and the factors which need to be reconciled, with a view to having a clear strategy together with a module for participation.

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Some Milestones

The concept of workers' participation in management was first postulated by Gandhiji when he advocated that the industrial wealth of the country belonged to the people of India. He envisaged industry as a joint enterprise of labour and capital, in which both owners and workers have to be co-trustees of society. He believed that, instead of engaging in a class war and each thinking in terms of its exclusive rights, they should concentrate on the performance of their respective duties in terms of service to society.

The year 1947 witnessed industrial unrest in the country almost on an unprecedented scale. There was an all-round fall in production, and the cry went up, "Produce or Perish". In this crisis situation, the Government of India called a tripartite conference, in December 1947, which led to the adoption of the "Industrial Truce Resolution"

To give effect to the Industrial Truce Resolution, the first "Industrial Policy Resolution" was adopted in 1948, which accepted the Industrial Truce Resolution and reiterated its decision to associate labour in all matters concerning industrial production. The Government also decided to set up machinery to function at different levels—central, regional, and unit.

A major break-through was made in 1956 when the Government of India adopted the second "Industrial Policy Resolution". This Resolution emphasised the importance of the need for securing a continuous increase in production and its equitable distribution, and pointed out that the State must play a progressively active role in the development of industry. It reiterated that in a socialist democracy, labour is a partner in the common task of development and has to participate in it with enthusiasm.

The second Five-Year Plan also recommended workers' participation in management through the establishment of Joint Management Councils on a voluntary basis. Such councils were set up in selected enterprises, and consist of representatives of employers and workers in equal number—the workers representatives being nominated by the trade unions. These Councils have the obligation to deliberate and determine the means of promoting better understanding between labour and

management, stepping up production, reducing wastage, and bringing about higher profits, promoting a more stable labour force and workers' safety, and other cognate matters.

The Joint Management Councils were established both in the public and private sectors, and they provided the first voluntary basis of participation which was quite different from the statutory set-up of Works Committees under the Industrial Disputes Act 1947 or safety and welfare measures provided under the Factories Act, 1948.

The Chinese aggression in 1962 posed a threat to the sovereignty of the nation when a state of Emergency was proclaimed in the country, and the Government of India decided to promote the establishment of "Emergency Production Committees' (EPC), both at the national and State levels on the pattern they were established in the U.K. during the Second World War. EPCs provided a basis for co-determination of production targets commensurate with increased efficiency, cost and quality of output, and for ensuring that the wheels of industry continued to move uninterrupted in the national interest.

Looking retrospectively, one might say that the experiment of these Joint Management Councils has not been very successful. Even in the Third Five-year Plan document, it was stated that important schemes, such as works committees and joint management councils (JMC) have made very limited progress. The entire approach followed so far needs a fresh look and a more dynamic strategy, as the nation can ill afford low productivity and apathetic, indifferent, and sometimes even hostile work-force.[1]

Perceiving New Horizons

In its broadest sense, participation should be a matter of belief and attitudes shared on the concept of mutually-accepted values; it should lead to efficiency, quality of production, innovation and expansion; it should provide a viable answer to the question of "Sharing the Gains of Productivity", it must manifest itself in co-partnership, co-trusteeship and joint responsibility on the basis of equality; and finally it must ensure recognition of workers not merely in terms of "human needs"

the requisite value orientation and behaviour patterns to lend functional realism to the concept of participation. It would be appreciated that even when the environmental and organisational pre-requisites are met, in reality it is the group of people and their latent and overt behaviour that determines the quality and consequence of interaction in the participative forums.

Challenging the Challenges

It is often argreed that if management has the final power then workers cannot be said to be participating in management however strong the consultative machinery may be, and however attentive the employer may be to the workers' views. On the other hand, it can be argued that a sharp line cannot be drawn between the rights of consultation and those of participation except as a matter of dialectics. Decision-making power cannot be absolute. Some considerations which need critical examination may be :

(i) Workers' participation cannot be viewed in isolation of the historical, economic, social and cultural conditions of the country.

(ii) In a pluralistic society, any legislation introducing some form of workers' participation shall have to be the outcome of the interplay between forces exercising political power or influence. In this context, any reference of the term "political" will need a limited interpretation to refer to "any action aimed at shaping or changing the society in which we live."

(iii) The general philosophy of workers' participation cannot be dissociated from its underlying motives and justification. There are two schools of thought which favour the principle of associating workers with the decision-making process :

(a) Those who advocate it as a fountain source of decision-making power, i. e. the right of ownership; they strongly hold that participative process cannot take place in the realm of property rights or a share in the ownership. And yet, several countries have introduced profit-sharing through worker share, taking due note of the Danish idea of "economic democracy" to be supplemented by

"industrial democracy" by providing workers' representation on management boards. Linkings workers' co-decision rights with ownership has been the basic approach in countries which have public sector undertakings or those which have been nationalised or have socialised the means of production .

(b) Those who postulate that workers are entitled to have a say in the management of their enterprises irrespective of ownership and simply because they work there, believe that workers' participation is based on the fundamental concept of justice, and that the ordinary worker invests his labour and ties his destiny to the place of work. For this reason, he has a legitimate right to have a share influencing various aspects of organisation policy.

Role of Trade Unions

Recognising that Trade Unions constitute an important segment of social control system and have a major role to play in introducing workers' participation in management, they have to strengthen the process of collective bargaining at the enterprise level. However, in considering collective bargaining as a process of workers' participation, two things have to be clearly interpreted :

(i) there should be a visible trend towards enterprise level bargaining; and

(ii) it should lead to the enlargement of the scope of negotiable issues.

For example, under the collective bargaining system in Hungary, workers have the right to even veto management decisions.

As to the second factor, i. e. widening the range of negotiable issues, developments in many countries have shown that the philosophy and the scope of collective bargaining is no longer limited to the determination of wages and working conditions. More and more matters which, in the past, were considered as the management preserve are being included within the scope of collective bargaining. In Sweden, there is a move to extend the scope of collective bargaining to personnel policy matters. Similarly, in the USA, collective bargaining agreements cover such things as the establishment of new plants, automation, and changes in

the work process. The most recent example is that of the FIAT agreement in Italy, whereby workers have succeeded in getting a clause included in the agreement binding the management to invest money in the South of Italy. Undoubtedly, the dimensions of the modern form of workers' participation in management have gone beyond the empirical approach and a subjective thesis of participation.

An important factor which comes in the way of the trade unions to pursue whole-heartedly the theme of workers' participation is their divided house. It is startling to know that in India we have over 18,000 unions and obviously their strength and capacity both in terms of collective bargaining and participative character suffers with inadequacies. What is, therefore, of major significance on the part of the trade unions is to make a serious effort to have the house of trade unions put in order.

In the ultimate analysis, the success of workers' participation in mangement depends on the attitude and the structure of power and values obtaining within the trade unions. Until such time the rank and file of the working class feels enthusiastic about the environment and the conditions which prevail, leading to greater loyalty on the part of workers, any measure whether legal or outside either at the instance of the State or with the concurrence of the trade unions, may not bring about the success of the experiments.

Higher Productivity and Participation

The approach to Workers' participation in Management, when viewed from the productivity angle, must reflect in a keener sense of belonging on the part of the workers for the overall growth of the enterprise, and for registering higher productivity and higher profits commensurate with cost and quality. Planning process even during the Second Five-Year Plan had recognised that "increased association of labour with management was necessary for promoting increased productivity, giving employees a better understanding of their role in the working of industry and in the process of production, and satisfying the workers' urge for self-expression, thus leading to industrial peace and better industrial relations through increased cooperation between management and iabour.",

Workers' participation in the context of higher productivity has to resolve several factors. It should dispel the fear of displacement of labour resultant of mechanisation and automation, since in a poor country with abundant labour force, increased productivity must provide greater volume of employment, and simultaneously bring about innovations in technology suited to local needs.

Productivity approach to participation must manifest in joint management and not segmented approach to management problems. It should lead to the creation of productivity consciousness and appropriate motivation among all levels of workers so that individuals and groups are able to contribute their utmost in the process of production. The participative process should further provide effective channels of communication at various levels of enterprise, the provision of adequate information data and in particular making it available to workers' representatives on various consultative committees.

Training of diverse kinds for both workers as well as managers should constitute a major theme of participative process. This should have a three-dimensional approach : (a) to improve technical and professional knowledge, (b) to provide an appreciation of national goals, and (c) to enable workers' representatives to serve effectively on various consultative forums. Such efforts alone will bring about democratisation of management process and ensure appropriate motivation for raising the levels of productivity.

Module for Participation

Under Indian conditions, the success of any scheme of workers' participation in management, whatever formal shape it might take, would necessarily depend on :

(a) The presence of a reasonable degree of mutual understanding and goodwill on both sides;

(b) The existence of strong and representative trade unions;

(c) The inclusion of major subjects such as wages within the scope of the Joint Consultative machinery;

(d) Sound business practices, including sufficient degree of autonomy; and

(e) Adequate training of worker's representatives.

Within the framework of the scheme formulated by the Government of India, a 3–tier approach for a meaningful process of workers' participation in management may be more effective :

(i) Formation of shop-floor committees to look into the production problems and determination of production targets. Such committees should consist of shop-floor workers who should be able to determine jointly with management representatives the production norms and production targets.

(ii) Formulation of departmental committees to coordinate the achievement of production targets set out by the shopfloor committees. They should be further responsible for removing the bottlenecks and providing facilities in regard to material utilisation, manpower and equipment effectiveness to achieve the targeted production.

(iii) The formation of plant or unit level committees which should be seized with problems of production, cost and quality of products as weil as other matters concerning the efficiency, welfare and profitability of the enterprise.

Machinery for Follow-up and Implementation

The follow-up and implementation mechanism would greatly depend upon the cooperation and mutual acceptance of obligations as well as a constant endeavour to bring about improvements in the performance of the enterprises as a whole. It would also depend on the philosophy and the manner in which the participative process would evolve at the enterprise level. Some broad requirements for this are :

(a) Commonality of interest;

(b) Determination of long-term and short-term goals; and

(c) Massive programme of training of workers, supervisors as well as managerial personnel for preparing them for effective participation at the enterprise level.

A Leap in the Right Direction

One of the great advantages which this experiment could bring about would be that undertakings both in the public and private sectors should develop their own "public image", and demonstrate that they do not treat the body of workers as doers of jobs and takers of orders alone, but that they accord to the workers the status of partners in the modern culture of growing industrialisation. In the ultimate analysis, it could become a significant step towards the emancipation of labour from its only role as an agent of production to the new status of organiser of production and decision-making.

The question of workers' participation in Management is, therefore, primarily a question of attitude-orientation. Favourable attitudes can be developed only by the sincerity of purpose and depth of conviction. It is not at all a matter of paying lip sympathy to the cause of lofty ideas or a political fad; it is, in fact, a major plank of discovering practical and mutually advantageous ways and means of developing an understanding between management and labour. It is also a matter of enlightened self-interest, recognising that, small but positive beginnings born out of sincerity of purpose can see us through the "crisis of confidence" which sometimes afflicts the industrial life in the country. □

Workers' Participation in Decision-Making : Research and Hypotheses

Mirza S. Saiyadain*

The term participation is variously understood by the involved parties. For management, it is a joint consultation prior to decision-making; for workers, it means codetermination, while for Government it is an association of labour with management without the final authority or responsibility in decision-making (Mhetras, 1966). A rather interesting description of participation is provided by Strauss (1963). According to him, participation is generally conceived by a way of reducing power differences and, therefore, equality is stressed. Participation as a means to reduce power, equality, however, seems difficult to accept because of the obvious difference in formal power positions between a labourer and the director.

The more precise conceptual properties of participatoin are hardly clear, although at least the following elements seem involved (Golembiewski, 1965) :

1. The amount of verbal interaction between a supervisor and subordinate.

2. The degree to which a supervisor performs his role in a group-centred way.

3. The degree to which a supervisor is active in making decisions and setting goals to his work units.

Despite the variations in interpretations, there seems a consensus that participation means sharing in an appropriate manner the decision-making power with the lower ranks of the organisation, the general assumption being that by using such a process the workers would be able to contribute to the overall effectiveness of organisation.

Mhetras (1966) has suggested five levels of participation which range on a scale from minimum to maximum paticipation in decision-making. Since these levels of participation can give us an indication of the extent

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of codetermination in an organisation, they deserve attention. We have tried briefly to highlight these levels below; they ranked from minimum to maximum degree of participation:

(a) *Informative participation:* Refers to only information-sharing concerning balance sheet, production, economic condition of the plant, etc. Here the workers have no right of close scrutiny of the information provided.

(b) *Consultative participation:* Here the council is consulted on such matters as welfare programmes, and methods of work and safety. However the final decision is always that of management, the council only working as an advisory body.

(c) *Associative participation:* Here the council's role is not purely advisory unlike consultative participation. The management is under moral obligation to accept and implement the unanimous decision of the council.

(d) *Administrative participation :* A decision already taken comes to the council for choosing an alternative to implement. Here the degree of sharing authority and responsibility is definitely more than the others.

(e) *Decisive participation :* Decisions are taken jointly on matters relating to production, welfare etc.

The level up to which a company will allow the council to participate will depend on the philosophy followed by the company on one hand, and the personality of the council on the other hand.

Participation has been called as one of the most prominent constituents in the group dynamics literature (Schnieder, 1955). Several empirical findings, conducted in laboratory and otherwise show that significant changes in human behaviour can be brought about rapidly only if the persons who are expected to change participate in deciding what the change shall be and how it shall be made (Simon, 1955).

Initial Research in Participation

Of the earliest studies in this area, two (Lewin, 1947; Coch & French,

(1947) need special mention. These studies have successfully shown that changes in attitude and behaviour can more effectively be brought about through participation rather than by lecture or individual instructions.

Lewin and his associates (1947) conducted several studies to see the effect of participation on change in food habits. These studies lasted for a period of four years. In the first study, one group of housewives was given attractive and interesting lecture on the vitamin and mineral value of three meats — beef hearts, sweet breads and kidneys. With the help of charts, explanations were given, health and economic aspects were emphasised and mimeographed recipes were provided. The other group was induced to participate in the programme of change without high pressure salesmanship. A follow-up study showed that only 3 percent of the women who have gone through lecture method served one of the three meats, whereas of those that went through group discussion, 32 percent served one or the other meats to their families. Subsequent follow-up showed similar trend.

Coch & French's (1947) study was centred around women tailors working in Harwood Co. producing pajamas. The factory was facing problems of reduced production after transfer of its employees. An experiment was designed in which there were three degrees of participation : (a) no participation by employees in planning the changes, though an explanation was provided, (b) participation through representation of the workers in designing the changes to be made, (c) total participation by all members of the group.

The results of the three conditions are summarised in the following table.

Estimated changes in output *vis-a-vis* degree of participation

Conditions	*Production Units per hour at five day interval after minor changes*					
	5	*10*	*15*	*20*	*25*	*30*
Total Participation	64	65	75	71	71	72
Representation Participation	50	53	60	68	64	66
No Participation	45	53	55	51	49	55

Source : Golombiewski (1965)

Without going into too much of details, it can be stated that resistance to change could be overcome by getting the people involved in the process of change.

A subsequent and relatively-recent study by Marrow, Bowers, and Seashore (1967) using same company Coch & French (1947) showed very revealing results. The study was carried out for two years 1962-64, whereby the Harwood's management model (Participative) was used to bring about changes in Weldon (a company Harwood bought) which was run on a dictative fashion. The results are summarised in the table below :

Indication of Organisations' Efficiency in Production

Area of performance	*Year*	*Weldon*	*Harwood*
1. Return on capital invested	1962	−15%	+17%
	1964	+17%	+21%
2. Make up pay	1962	12%	2%
	1964	4%	2%
3. Production of efficiency	1962	−11%	6%
	1964	+4%	16%
4. Earnings above minimum (Piece rate and other incentives, employees only)	1962	none	17%
	1964	16%	22%
5. Operator turnover rates (monthly basis)	1962	10%	3-4%
	1964	4%	3-4%
6. Absence from work (daily rate production employee only)	1962	6%	3%
	1964	3%	3%

Source : Marrow, Bowers & Seashore (1967)

In addition, the results of the attitude survey suggest stable but moderate changes, more positive view of the company, an awareness of the reduction in disruptive job changes; more satisfaction with compensation; more willingness to stay in Weldon; and a general positive attitude.

Although there is ample evidence to suggest that participation does bring about a change in attitude and behaviour, the persistance of change does not seem to show the same promise. A longitudinal comparison by Sinha (1974) pointed out a reversal in the participative management over a three-year period. The study showed definite increase in input (physical, personnel facility and personnel competence)

intervening (e.g. supportive relationship, goal setting, decision-making motivation) and output (quality and satisfaction) variables in the employees of a hospital after the introduction of participative decision-making. However, a subsequent measure on the same variables after a period of 3 years revealed significant reversal in intervening and output variables, suggesting thereby a curvilinear relationship between participation and measures of its effectiveness.

The studies discussed in some detail above and several other studies (see for example Radke & Klisurich, 1947; Morse and Reiner, 1956; Lawrence, 1969) suggest substantial degree of support to the general effectiveness of participation.

Experiences of Some Nations in Workers' Participation

Despite such convincing evidence, the application of participation hypothesis has run into some problems in the area of workers' participation in management. It seems that in specific situations such as this, lot many intervening variables operate and thus inhibit a clear-cut prediction on the effectiveness in participation. Such variables include both structural as well as personality variables. To fully comprehend this point we need to look at multinational experiences of worker's participation and its effectiveness.

Yogoslavia :* Yogoslavia provides the most classic example of workers' participation in management. Traditionally known as self-government in industrial undertakings, it was formally instituted in February 1922 when the coalition government passed a legislation conferring on workers the right to participate in the management of enterprise. The movement, however, could not effectively take off because of political problems, major of them was Nazi occupation during Second World War. However, through the "Basic Law" of 1950, the Government recognised the principle of workers' management. This law stipulated two kinds of agencies for cooperation; the workers' council (whose job was to decide and define the general policy of the undertaking with regard to economic and social matters) and the management Council (which

*For detailed discussion on cross-national experiences, see ILO series on Cooperation in Industry

was required to ensure the application of policies thus generated). Members of the two councils were to be elected by a majority vote.

Despite repeated government's acts and decrees, the Yugoslav experiment has not been all that successful. A comprehensive study by Kalaja (1965) supports this conclusion. He used, observations, semi-structured interviews combined with the content analysis of personal files and merits of meetings and questionnaire responses on a sample of two factories in Yugoslavia. His findings suggest that the major function of workers' councils in both factories was informative and educational. The workers' councils "participated actively when personnel questions were discussed, their participation fell short of the professed definition of workers' management when technological developments as well as financial and marketing issues were discussed" (p.77)

Sweden : Joint enterprise council, the Swedish name for workers' participation was formalised in the year 1938 under an agreement between the Employers' Federation and the Confederation of Swedish Labour Unions. This agreement is also known as *Salts jobaden Agreement.* According to the terms, the following were agreed : (a) to achieve the highest-possible production; (b) to ensure that the technical and financial information is made available to workers; (c) to encourage technical training within the firm; (d) to maintain security and safe woking conditions of employment and (e) to maintain good relations between the management and the employees (Vallstand, 1961).

Swedish experience, to some extent, has been a story of success largely because of the efforts of trade unions and comprehensive training schemes. On the other hand, equal credit should be given to employers who have shared company information with the workers. However, the performance of joint enterprise councils has not been uniform across undertakings. Two reasons seem to have contributed to this setback; (a) suspicion of the workers to the information provided by management, and (b) lack of dissemination of the results of participation across to all employees (Das, 1964).

Germany : Another well-documented attempt towards workers' participation has been codetermination in Germany. The history of workers'

participation dates back to 1840's when modern industrialisation led to unemployment among handicraftsmen. However, it was not until 1916 when government enacted the Auxiliary Service Act and legally recognised workers' right to participate in making of manpower and welfare policies. Four years later, Works Council Act was formulated which later became "Codetermination Law". Under the Act, the workers' councils were required (a) to cooperate with the employer in promoting efficiency of production, (b) to cooperate in the introduction of new labour-saving methods, (c) to promote peace, (d) to defend the workers' right of association, and (e) to reconcile employees' grievances (Das, 1964).

Although both the trade unions and the government were able, despite resistance from employers, to achieve the right of codetermination, in actual practice it ran into major difficulties. Appointment of labour directors on the board was looked upon with suspicion by workers. They were concerned that these directors may overlook workers' interest in order to safeguard the interest of the enterprise. This was further accentuated by the fact that these people drew large salaries. On the other hand, employers were not very favourable to the idea.

Suhuchman (1957) concludes that despite codetermination the ultimate responsibility and decision remained in the hands of management. There could be three reasons : (1) the advantage of electing an eleventh man on the supervisory board—a decisive vote on an otherwise 50-50 representation by workers and employers; (2) the failure to apply the Codetermination Law to holding companies; and (3) day-to-day management resting in the hands of management board where labour had minority representation.

Norway : Industrial democracy in Norway took a formal shape as early as 1935 when TUC and Confederation of employers signed the main agreement. It clearly recognised that (a) the industrial democracy should be considered in the context of existing Norwegian industrial conditions, (b) to bring Norwegian industrial life into closer accord with the democratic social life, (c) create conditions for individual commitment, leading to increased productivity and efficiency (Emery & Thorsrud, 1969).

Results of the interviews conducted by Thorsrud and Emery (1966) of

30 persons who had personal experiences of these mixed boards revealed the following : (a) little evidence of active communication and feedback between the electors and their representatives which in itself renders suspect the effectiveness of representation, (b) some interviewees mentioned of their having to take a company's view particularly inmatters of production; and (c) failures of representatives to exercise control over managers or push welfare demands in the face of either company requirements or they were ill-equipped to judge.

On attitude level, however, a survey by Holters (1965) indicated that a majority of lower grade industrial workers felt that they could cope up with and wanted more responsibility in their daily work.

Great Britain : Joint Consultation, the British name of workers' participation, owes larger share of its gratitude to the Whitley Committee which provided a recognised means of consultation between the management and employees. The committee, in its recommendations, suggested to (a) give employees wide interest in and greater responsibility for, the conditions in which their work is performed, (b) prevent friction and misunderstanding, and (c) enforce the regulations contained in collective agreements drawn up by district and national authorities. Matters relating to wages and hours of work were excluded from its purview.

The joint consultation, though, has contributed a sense of cooperation and mutual responsibility, it cannot be called a success. Except in times of crisis, the employees were generally disinterested in or apathetic to the joint consultative bodies. Apart from personal grievances, the individuals found it difficult to perceive how to use it. The set-up was regarded as an important possession but its existance was taken largely as goodwill or a mechanism, in case things go wrong (Jaques, 1951). One important barrier to the success of joint consultation in production and efficiency has been the failure of the new conceptions at the centre to permeate down to the shop-floor level (Kirkaldy, 1953).

India : Indian version of workers' participation can be dated as far back as 1920 when the workers and employers in Ahmedabad Textile Industry agreed to settle disputes by mutual discussion. However, it was not untill 1947 when it achieved some acceptance. In this year,

Government of India enacted the Industrial Disputes Act, Under the provision of the Act, works committees were appointed to "remove cause of friction between the employer and the workmen in the day-to-day working of the establishment to promote measures of securing amity and good relations between them". Subsequently Joint Management Council (JMC) was launched by Tripartite Indian Labour Conference in 1957, with the purpose of improving working conditions, productivity, communication, general administration of laws and collective agreement, encouraging suggestions from workers and creating among them a sense of participation" (Sheth, 1972)

Indian experiment in workers' participation has been far from satisfactory. In a study covering six industrial units (three private and three public sector undertakings) Sheth (1972) collected data through interviews with various cadres of management, labour and union. He concluded that the functoning of JMC had not been entirely satisfactory. Of the several reasons for failure, Sheth (1972) highlighted the following:

(a) If it is imposed from above or accepted after hard persuasion, it may not be effective.

(b) It has been found to be effective if it has been perceived to meet the needs of the concerned people at the level of organisation.

(c) It has not been clearly demarcated from other consultative committees like workers' committee and production committee, etc.

In an earlier study of five companies, Mhetras (1966) found management hesitant to share with workers their right to manage and workers reluctant to take the implied responsibility of participating in managerial action. He concluded that in addition to the attitude and outlook of concerned parties, lack of clear-cut distinction from other consultative bodies endangered the effectiveness of JMC, a finding subsequen tly supported by Sheth (1972).

Though there is very little attempt in these studies to make a comparative evaluation of success or failure across nations, there is one study available that does just the same (Sturmthal, 1964). This comparative study of workers' councils in four countries,—France, Germany, Poland and Yugoslavia(two on each side of iron curtain)—deals with the attempt to establish decentralised market economy on the basis of socialistic

property arrangement and the status of unions. Sturmthal found that as far as countries behind iron curtain are concerned the political system makes real self-government difficult. While in France and Germany the participation was limited only to the matters concerning personnel rather than production or finance, Sturmthal concludes that a sustained experiment in the system of workers' self-government does not yet exist.

Effectiveness of Workers' Participation

The following factors seem to account for the relative failure of industrial democracy across the world. The listing, however, does not exhaust all the possibilities :

1. Workers' participation has suffered largely from the hands of employers. They have felt and probably still feel that such a move will take away from them their right to manage. To some extent, this is supported by a large scale government interference in using decrees, enacting laws, and formulating legislative bodies. Voluntary participation by employers has been a rare thing except maybe in case of Sweden.

2. Because of this attitude of the employers, information-sharing has not been liberal. Workers' representatives have often not been informed regarding manpower and production schedules. This has created an attitude of indifference and possibly hostility among the representatives.

3. Most studies have pointed out the role conflict that most of the representatives have faced in mixed boards and committees. The conflicts have arisen because very often representatives are forced to take company view on some matters that contrasted with the wider interest of workers. This has not only created conflict of interest among these representatives but has very often generated a crisis of confidence among electors.

4. Unlike the stated aims of participation, in most cases joint boards, councils, etc., have ended up dealing with personnel and welfare matters rather than matters concerning production and efficiency. This, to a large extent, has been responsible for the dissatisfaction

of the employers whose concerns rest relatively more with production and efficiency.

5. In some cases, studies have found very little evidence of active communication and feedback between the electors and their representation. Part of the blame can be put on the representatives themselves who have found themselves ill-equipped to judge as to how and what should be communicated. Partly multiplicity of union has caused such a problem. In Indian context, this has done considerable damage to JMC.

6. Finally, it has been found, at least in Scandinavian countries, that ineffectiveness of particition has shown a positive correlation with the level at which it is utilised. As reported by Holter (1965), industrial experiments in U. S., U. K. and India (in engineering, coal-mining and textile) have shown that the democratic sharing of power at lower grades of industrial workers can be stable and effective because it furthers the ends of both employees and government.

Workers' Participation : Intervening Variables

In our eagerness to apply any or all of the afore-mentioned factors, to judge the success or failure of the experiment in industrial democracy, let us not forget that each country and each organisation may have a unique culture of its own (Jacques, 1951). For example, Whyte (1959) suggests that self-determination, so much valued by Americans, is not shared by workers in South America, Same way Germans are groups only if they are led by a leader, while informal group is a potentiality in U. S. (Weiss, 1956). Thus there seems no reason to expect that the consequences of participation will be universal. Although cross-cultural work is scarce, evidence from more theoretical studies supports the point (Maier & Hoffman, 1962).

Vast amount of literature on participation is available; and numerous studies are underway. In fact, as Shaw (1961) notes, "we are presently in the midst of something of a renaissance of research on the effect or participation". However, most of the studies have tried to determine the influence of workers' participation on performance in

a one to one fashion. The significance of intervening conditions is not that thoroughly explored, though some studies have suggested the nature of necessary specification for participation.

Bennett (1955) found support for two hypotheses, i. e., (1) *the process of decision* to perform a specific action raises the probability that the decisions will be performed, and (2) *the high degree of consensus* on a decision raises the probability that the necessary action will be forthcoming. The results imply that they need not be due to the technique of group decision. Bennett explains, "the factions of decisions and perceived group agreement regarding the direction of such decisions alone have been shown to be as effective in increasing the probability of execution of an action as group decision itself" (p. 271). In another study Haublin, Miller and Wiggins (1961) found that the perceived competence of the discussion leader in group decision-making, makes a difference in the morale of the group.

In a very extensive study of the entire Yugoslav experiment, Brockmeyer (1968) found the following three elements necessary for the survival of workers' self-government. These are: (1) expertness, (2) motivation for the problems handled by the council, and (3) growth of a small sub-group of competent and responsible people. The expertness and knowledge hypotheses subsequently found significant support in Mulder (1971) and Mulder and Wilke (1970) studies which found expertness as necessary prerequisites for a good participation. In a rather extensive survey of literature, Lowin (1968) first proposed a model of participative decision-making, and subsequently showed sufficient support for his model. Some of the parameters of the effectiveness of participative decision-making are highlighted below :

1. The degree of effectiveness varies directly with the degree with which the participation meets the motives of the participants.
2. The greater the clarity of goal the higher the effectiveness, provided conformity to goals is a stronger motive among the participants.
3. Settlement of relatively-difficult issues leads to greater effectiveness.
4. The higher the visibility of the activity of participative decision-making, the more the effectiveness.

5. Effectiveness varies inversely with the urgency of the decisions.
6. Effectiveness varies directly with the number of administrative levels subsumed by the programme.
7. Finally, the amount of useful information influences the effectiveness of the participative decision-making. The more useful the information, higher the effectiveness.

In a rather recent study on Indian sample, Dadi (1974) provided support for two hypotheses. The results suggest that the level of economic development negatively correlates with workforce participation rate, and age shows a curvilinear relationship with participation.

These are just a few examples of the specifics in participation. These studies do suggest one thing. They point out that without necessary preconditions for participation, there may exist the danger of false participation. Secondly, people may engage in matters that are either completely unimportant or above their level of expertness. Both these dangers are extremely critical. The first may lead people to think that the fact that they are participating is sufficient to bring about satisfaction, commitment and so forth. The second may lead to the feeling that since they really are not contributing anything it may be demotivating and possibly lead to "destructive" activities. In order to avoid these dangers, the search for more intervening variables must go on. □

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Issues Involved in Workers' Participation in Industry

S. P. Lavakare*

The idea of workers' participation in the management of industrial and commercial enterprises, both in the public and private sector, is neither new nor novel. The problem, however, has always been about its scope, content and objective. Several attempts have been made to experiment with various forms of workers' participation through legislation and exhortation. It is an accepted fact that these attempts have not achieved desired results. The need to evolve some kind of joint machinery not only to resolve differences but also to ensure cooperation of workers in establishing industrial democracy still exists.

The Government's interest in reviving the scheme of workers' participation is mainly aimed at increasing production and productivity. The 20-Point Economic Programme of the Prime Minister rightly emphasises the urgency for evolving a scheme for workers' participation in management. In pursuance of the 20-Point Economic Programme, the Government announced, on 30th October 1975, a non-statutory and flexible scheme for workers' participation in management at the shop-floor and plant level.

Flexibility in the Scheme

The scheme avoids any strait-jacket approach to the problem. It has built-in flexibility to accommodate all types of variations that may be there in different industries, units and areas. The flexibility has been deliberately built in to ensure its proper implementation. But the flexible dimensions both in concept, form and in operating procedures have obviously left a room for a great deal of confusion in the absence of clear guidelines or directives. Does participation mean formal or informal consultation with workers or just sharing information with workers ? Does it mean giving advice or sharing the exclusive and traditional prerogatives of decision-making by management ? Who should nominate the representatives of management and workers, and how ? At what levels of organisation should participation take place ? An answer to each of these questions would only contribute to the clarity of thinking with which the scheme can be implemented.

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Design of the Scheme

While there appears to be a general consensus of opinions favouring workers' participation in management, there have so far been no clear and agreed views on the scope and coverage of such participation and the levels at which it would be most fruitful in bringing about desired results. Besides, the initiative for implementing the scheme is left to management in industry. The question arises, if management and workers both have common stake in production and productivity, why is it that the unions or workers cannot take initiative in implementing the scheme ? What is the need for appointing the Chairman of the Council from management side, when the success of the scheme depends on the cooperation from both parties ? Besides, the Chairmanship can be by rotation, with mutual consent. What kind of motivation is there for management to share their exclusive prerogative of decision-making with their workers ? Are they prepared for it ?

Involvement and Motivation for Workers

It is necessary here to stress that the mechanism of participation has been evolved in a manner, which makes the worker feel that he is not a mute instrument but a conscious participant in the society's appratus of production. In the absence of mental or emotional involvement, the work becomes a mechanical process and consequently the worker feels alienated. But it is pertinent here to raise the question of readiness of worker to participate in management. Is he capable of this task ? One has to look closely at the quality of the workers on whom the success of the scheme depends. It entails spending considerable money in training and developing workers in right attitude and attributes to cultivate participative spirit. But that is not enough. Is he capable of this task ? Is there any motivation for him to participate in management ? If the emphasis of the scheme is on increasing production and productivity without ensuring any gains for him, he would like to know why he should participate. In developed countries, too, the apathy of the workers to such similar scheme was initially a hindrance to its success. Here we have to take note of the fact that in our country, the mood of the workers is slowly changing, but how far it would last in the absence of any incentive is not yet known.

It is generally felt that the scheme for workers' participation in industry

at shop-floor and plant level is bound to usher in a new era in the history of industrial relations and production processes. Moreover, now that the workers have been given due recognition, the participation will end crisis of personality, which the modern mode of production has generated, and also help in bridging the gap between the managers and workers which was long overdue.

The emphasis of the scheme is on a common stake in production and productivity, work-discipline, improvement in working conditions, safety norms, the provision of all of which should be considered as an aspect of productivity than as an underserved perks grudgingly granted. In short, the scheme suggests nothing more revolutionary than what any enlightened management would promote for its own advantage and what any worker who wished to improve his prospects in a firm would welcome.

Need for Consensus

The cornerstone of the scheme is consensus. The choice of workers' representatives for the Shop and Joint Councils is to be on the basis of consensus, presumably because elections tend to stir up inter-union rivalries. But the assumption that the process of arriving at a consensus will somehow be free from controversy is far removed from reality. So far, no attempts have been made to ensure the recognition of one trade union alone for the purpose of nomination of workers' representatives, in the absence of which, a good mechanism for collective bargaining and participative management cannot be evolved. Consensus is also the basis of decisions taken in the Councils. Here again, controversies arising out of attitudinal barriers between the manament and workers cannot be wished away. At the same time, any other pocedure can kill the idea by vote manipulation and accrimoneous wrangles. How far workers' representatives would enjoy freedom of openly disagreeing with management opinion on any issue in the traditional hierarchical organisational structure ? What kind of protection is assured to workers' representatives for freedom of expression in thought and action ?

The insistence on consensus may pose some difficulties. Consensus is possible only in terms of shared perspective and a code of behaviour

agreed upon by all concerned. We have not yet reached that stage in our country. It remains to be seen how we would succeed in creating conditions in which consensus becomes a practical proposition.

The functions allotted to the Councils cover all aspects of production productivity, discipline and welfare. Important though they are, are they capable of persuading workers to take a sustained interest in them ?

Other fundamental questions which have to be resolved if the performance of Joint Councils is to succeed, where Works Committees and Joint Management Councils failed, are of fair wages and equitable sharing of the gains of higher production and productivity. As mentioned earlier, it may be too much to expect workers to be drawn into any participatton, if they are not ensured their due share in the gains accruing from their efforts.

Role of Parties Involved in Implementation of Scheme

It further leads us to ask ourselves, what is the role of various parties that are involved in implementing the scheme in industry? What is the role of the state government in making the scheme successful at state level ? What is the role of professional bodies such as Chambers of Commerce and Employers' Federations in implementing the scheme ? What role trade unions at national level should play in making the scheme successful ? What is the role of the management institutes in equipping the managers to participate effectively ? What is the role of National Apex Body, besides collecting data on the implementation of the scheme in various industries ? At this stage, it is very difficult to delineate the role of each party that is involved in implementing the scheme, but that does not preclude us from becoming aware of the problems and difficulties associated with it.

Need for Review Machinery

Before going into the areas of attitudinal changes, it is essential to stress the need for setting up some kind of machinery which would not only monitor but also review the success of the scheme wherever it is implemented. It should objectively aim at not only finding faults in the

participative machinery, but should also highlight the positive aspects of the machinery on the basis of which broad guidelines can be derived not only for avoiding the repetition of the mistakes but also effecting improvements in future.

Training for Participation

To enable workers to contribute more effectively in management, it is necessary that they are not only well-informed but also that they have some expertise and knowledge of the issues that would come up for discussions. It might be necessary to train both management and workers in areas of inter-personal relationship, inter-group communication and general matters such as conducting meetings, presenting information, etc. But the question is, who should take the responsibility for training workers? Should they be trained on company's time or half on company's time and half on workers' time ? Should they be trained by senior executives of the company or by the external training Institutes ?

Managements' Attitude

As for the managers, there is a vital need for attitudinal changes so that they regard the workers' participation as a positive step in bringing about an improvement in an organisation. Management of a unit has always been considered as an inalienable right of the executives, specially the owners. Workers' participation definitely dilutes this right when it is fully implemented. Is the management prepared for it ? Similarly, from the workers' point of view, it could be argued, why should the workers accept the responsibilty of taking vital decisions that could increase efficiency and decrease costs if they are not to receive any benefit out of it ? Both the management and the workers cannot afford to view the problem so narrowly. The problem, therefore, boils down to the covering of distance from the present position of the management and the workers to the new position of full acceptance of social responsibility involved in participative process.

There has to be an awareness of the significance of the contribution towards better management of enterprise by knowledgeable workers, experienced employees and young executives as the work processes are

becoming more complex. Adequate wages and pay, other elements of remuneration and benefits are not enough to involve workmen in the creative process of the organisation. Besides getting their livelihood, workers derive other saitisfaction from employment, like, association with workers, the sense of belonging to their respective professions, pride in their contribution to the life of the community and towards social and management goals. It is not possible to expect such changes overnight, but efforts have to be made in the desirable direction.

Trade Unions' Attitude

Just as employers have little to lose and much to gain by adopting a positive and forward-looking attitude, it is up to the trade unions to respond by not looking upon the scheme as giving them a newly-won right, but an acceptance of a new responsibility which would lead them to effective participation in management. The strong support of Trade Unions would further facilitate the process of participative management. So long as collective bargaining is within the purview of the trade union, there is no basis for apprehension of losing grip over workers.

The unions should not look askance at the scheme and perceive it as another control device that erodes into their power. It is difficult to see how the scheme can ever become a successful reality without the unions becoming an integral part of it. Ways and means have to be found towards a more authentic involvement of the unions in the participative process. The distrust underlying the relations between the management and unions, if there is any, has to be resolved through programmes of union-management interaction which would be task-centred at various organisational levels.

Participation at Middle-Management Level

Lastly, the success of participative management, especially workers' participation in management, would depend on the degree of autonomy and participation that the managers and supervisors themselves enjoy. One who does not receive participation may find it difficult to initiate it for his subordinates. While the focus of participative style is on

workers' participation, the managers at the junior and middle level suffer from a sense of alienation as they are ignored in formulating major policies, although the responsibility of implementing these polcies are squarely placed on them. In view of this, it is difficult to see how they would look upon the scheme of workers' participation when they themselves are deprived of it. Attempts have to be made whereby they would be effectively involved not only in the implementation of the scheme but also in the decision-making processes of the organisation.

The New Scheme vis-a-vis Earlier Attempts

It may be rather too early to say in what way this new scheme differs from the earlier attempts of setting up the works Committee and Joint Management Councils. However, that should not preclude us from thinking about it. Firstly, the title of the scheme 'Participation of Workers in Management' itself is so clear unlike previous titles, that it is hoped that it would encourage workers rather than annoy them. Secondly, the scheme is not made statutory and inflexible unlike the Works Committee. Thirdly, the limited scope of the scheme for associating workers with production process only, may win it better support of both workers and employers as improvement in production is a matter of immediate concern to both of them. However, the demarcation of areas for participation would not solve the problem of bringing various other non-related issues in the joint forums. That problem would be there initially and through proper exposure, experience and education, it would gradually disappear. But to start with, it has to be accepted and should not be considered as distortion of the main objectives of the scheme. Lastly, the flexibility of the scheme permits variations suiting local conditions.

However, even a cursory perusal of the guidelines of the scheme shows clearly that barring the provision of Joint Councils at two or more levels instead of at only one level, the newly-announced scheme adds nothing to what had been recommended 19 years ago, and in fact, takes away something significant from it. The new scheme mentions only production and productivity as the field of activity for the Joint Councils. The right to receive information on crucial matters like financial results, technology, administrative jurisdiction in several

matters of interest to workers, which were proposed to be given to the Councils under the earlier scheme, do not find any mention in the new scheme. Is it an improvement over the earlier schemes or a deliberate omission ?

Conclusion

Participative management is not a magic word that would help industry' resolve its inter-personal and inter-group problems. The workers' participation can yield only limited outcome initially. Yet we must first resolve our own ambivalence and confusion over the concept.

Some organisational groundwork is necessary. If the scheme is implemented mechanically or dogmatically, it would not motivate employees and create the consultative or participative culture. On the other hand, it can be used as highly-realistic device to achieve the twin objectives of uninterrupted production and creation of industrial peace, which can offer the prospects of a new way of life in industry to the advantage of everybody concerned. Even though the scheme had been well thought-out and has been successfully implemented, we still need to ask ourselves whether it is producing new ideas, whether it is sustaining interest or whether it has settled down into a rather pointless routine. Above all, it should be emphasised here that it is not the form and the manner of its implementation, rather the content and spirit behind it that are critical to its success. □

Workers' Participation for Increased Satisfaction and Productivity

Prayag Mehta*

Increasing attention is now being focussed on workers' apathy towards work. The technology of work and its social organisation reduce the worker to the status of a small piece in the entire complex machinery. Work is so much fragmented that it is reduced to a routine monotonous drudgery for a large number of people. The complexities of the industrial organisation and the centralised decision-making processes accentuate the feelings of helplessness among employees and workers. The work monotony and the growing sense of helplessness tend to reinforce the wokers' apathy towards work.

Workers' Participation

Researches conducted in the last few decades have shown that participation of workers in the various work and decision-making processes increase their work satisfaction and decrease their work apathy (Blumberg, 1968; Pateman, 1970). It not only reduces industrial tensions and conflicts but also works as a positive instrument for the development of the people concerned as well as for the promotion of productivity and creativity. Under the New Economic Programme, worker participation has been given an important place. This has been done with the objective of drawing more and more people at the lowest levels of work organisation to the processes of decision-making and management of day-to-day work situations.

Rising Aspirations

The various developmental and people-oriented activities have stimulated the tempo of rising aspirations in people, particularly among the weaker sections. There has been increasing social awareness and an enhanced desire for a better and more satisfying life as well as work. The more conscious among the workers now tend to compare their roles *vis-a-vis* the roles of the supervisors and other people in the organisation. It

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reflects a positive change in their self concept and a desire for a better status in the organisation. The workers' participation programmes seek to respond to such rising aspiration.

Work-Related Satisfaction

Studies (Mehta, 1976) on workers' participation show that workers seek satisfaction in various dimensions of their work-related situation. Some important dimensions are summarised below :

Influence : There is now a greater desire for influence in decision-making process. Workers now feel more dissatisfied with decisions concerning their work when such decisions are made without their involvement. This is identified as the most significant factor in work-related satisfaction/ dissatisfaction. Deprivation of such a sense of influence tends to generate dissatisfaction with work and supervisors, *albeit* with the entire organisation.

Autonomy : Along with an increasing desire for influence, there is an increasing desire for greater autonomy at work. This is understandable in the context of rising aspirations. People do want to have a greater say as well as greater freedom in carrying out their various work activities. This is particularly so among the skilled workers. As is known, most of the leaders and representatives of workers come from categories of skilled workers. Such workers are one or two steps below the first level of management. They tend to compare themselves with their supervisors, they think that they know their jobs as well as their supervisors do and that they should have greater freedom in carrying out their various activities.

Friendly Relationships : One of the important social needs of the workers is to have warm and friendly realtions with peers. They want to work with and among friendly people. Lack of such relationship significantly increases their dissatisfaction with work itself.

Supervisory Behaviour : Similar to their desire for friendly relationship with peers, is the desire for more respectful relationship with supervisors. Workers now desire to have mutually-trustful and respectful relationship with their supervisors. This is quite understandable in view of their

desire for influence and autonomy. Disrespectful supervisory behaviour can lead to considerable work dissatisfaction among the workers.

Trust and support : Along with respectful supervisory behaviour and friendly interpersonal relations with peers, is the desire for greater trust in themselves and support from others in the work organisation. This is indicative of a desire for more humane treatment as well as for greater concern from the organisation for their welfare.

Work Amenities : Work amenities continue to be a very important source of worker dissatisfaction. Lack of proper housing, water facilities, cateen, educational facilities, etc. continue to agitate the workers' mind, giving rise to all kinds of grievances and dissatisfaction.

Participation and Satisfaction

As mentioned above, workers' participation may work as an instrument for promoting greater satisfaction among the workers. Effective participation, therefore, can reduce work-related dissatisfaction. Representational kind of participation, as is being visualised under the workers' participation programmes, can provide a forum for the worker representatives and others whom they represent to exercise greater influence in day-to-day work situation. Such participation cannot function effectively without promotion of trust and support, respectful supervisory behaviour and friendly interpersonal relations. They are important pre-requisites for successful implementation of workers' participation. Hopefully, participation by workers in joint councils etc., in turn, will promote such relationships. Workers will also get a chance to discuss and decide various actions for the betterment of the work amenities. This will give them a chance for participation in tackling some of the difficult problems facing workers in relation to their work as well as life.

Work-Related Satisfaction and 'Democratic' Consciousness

Researches (Mehta, 1976; 1976a) suggest that increasing influence and autonomy as well as more respectful supervisory behaviour and friendly relationships contribute significantly to the growth of democratic consciousness among the workers. Satisfaction of having influence and

autonomy in the work place tend to contribute to the growth of a sense of civic competence or political efficacy among the workers. Such satisfaction helps them develop a sense of subjective competence elsewhere in the wider civic affairs. Friendly interpersonal relations and respectful supervisory behaviour contribute towards acceptance of democratic norms. Such satisfied workers tend to perceive order and normfulness in civic and other such activities. Such acceptance of norms and perception of normfulness promote faith in the legitimacy of democratic institutions. Satisfaction with trustful and supportive relations in the work organisations and satisfactory work amenities contribute toward the development of a general faith in other people. Such a learning can produce a significant dent in the workers' traditional conservative social outlook. Thus, work-related satisfaction has important social and civic implications. Workers' participation, by promoting work-related satisfaction in the above areas, can work as an effective school for imparting democratic education to the workers.

Changing Consciousness for Productivity and Prosperity

Samples of imaginative behaviour obtained in response to pictures from workers' representatives on participative committees, suggest some interesting pointers (Mehta, 1976b). Responding to a theme card depicting *a Line of People* in front of some obscure building, they projcted the need for discipline and the desirability of order as against disorder in the past. They thought that it was a change for the better. They also imagined the need for collective action for social good with particular reference to higher productivity and progress of the country. They perceived the queue as a symbol of such collective action. They also perceived that the scarcity of essential commodities was due to hoarding and blackmarketing and that attempts are being made to curb such evils. For some respondents, the line of people was the symbol of determination for controlling such evils. Responses to another card depicting *Present and Future* (symbolised by an adult and a child) showed imagination for better future. The workers' representatives compared their present life with the anticipated life of their children and hoped for the better. There were also traces of pessimistic future and insecurity due to unknown future. However, the dominant responses showed their desire for better education of their children. They appeared quite determined to provide such education despite hardships and financial

difficulties. Responding to another card depicting *Leader and Followers*, the workers imagined their leader explaining a plan for agitation, ideas for increasing production and prosperity of the country. They also imagined that the assembled people were discussing their grievances with leader/manager. Here also the dominant theme in their imagination was for service of the country through increased productivity and collective action.

Responses to questionnaires can easily be contaminated by various factors. The projective response in relation to certain controlled pictorial stimuli provided a better source of understanding the workers' imagination and motivation. The data suggested the possibility of an important shift in their consciousness. Viewed in the context of the programme of workers' participation, such changed consciousness could become a significant basis for successful partnership and joint efforts for increased productivity as well as work-related satisfaction for the concerned people.

A properly-designed programme for workers' participation, as summarised in Fig. 1, is likely to lead to increased work satisfaction, which, in turn, is likely to increase the workers' sense of efficacy as well as their democratic commitment. The workers' reponse to such programmes suggest a good possibility for successful launching of workers' participation programmes. Such programmes are likely to result in increased work satisfaction as well as in increased productivity.

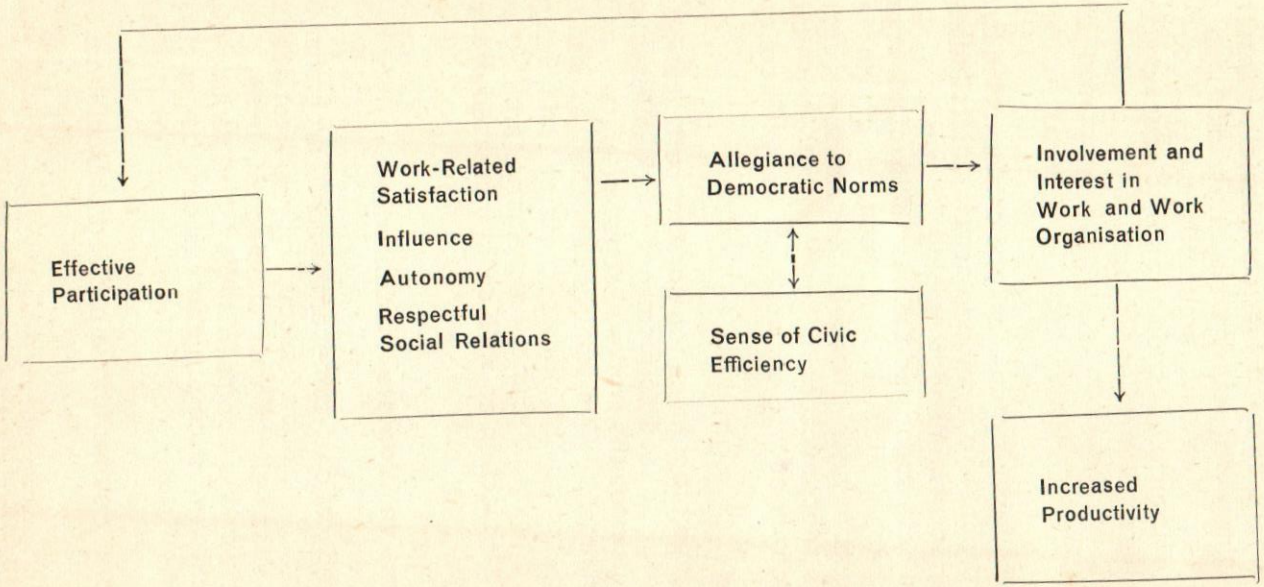
Developing Effective Workers' Participation

The important educational-cum-management programme of workers' participation cannot be launched successfully without adequate preparation. It involves suitable designed training of both the management nominees and the workers' representatives* and various other interventions. The objectives of such programmes can be briefly summarised as follows :

1. Workers generally suffer from a backlog of traditional backwardness

* Such a workers' participation programme is being conducted at the Bharat Coking Coal Limited, Dhanbad. A copy of a report on this programme can be obtained from the author.

Fig. 1 : Conceptual Model for Effective Participation



and conservatism. Such a consciousness retards their interest in wider civic life and produces in them an apathy towards and withdrawal from such civic activities, including the democratic institutions. Workers' participation should be used to develop progressive and democratic social outlook in workers.

2. The workers' representatives on the joint shop-floor and other committees can become agents of diffusion of progressive social consciousness among the large body of workers. The workers' participation programme, should help the worker representatives carry out this important task.

3. The traditional management by exclusion of workers from the process have led to their monopolising the entire influence. Workers' participation programme should help the various categories of managers to develop a more democratic outlook and a greater readiness for participating in decision-making processes along with others in the organisation.

4. Working over the years have developed a certain amount of cynicism towards management. They tend to think that managers, by and large, act againt the interest of the workers. The workers' participation programmes should try to develop positive mutual images among workers and officers.

5. The workers' participation programme should aim at increasing allround work-related satisfaction and developing the creativity and productivity of the work-force. It should, therefore, be used as an instrument of increasing production as well as satisfaction.

Training Programmes

The workers' participation programme cannot achieve its objectives without developing the necessary attitudes and skills. The training programmes, therefore, should aim at the following specific objectives:

1. The leading workers and worker representatives as well as the management nominees on the shop floor and other levels of joint committees should be helped to develop decision-making skills and skills of persuasive communication.

2. Development of readiness for sharing responsibility and powers. The programme should aim at helping the concerned people develop a collaborative strategy of working.

3. Several problems are common to workers and officers. They should be helped to develop joint problem-solving skills. It is particularly necessary for tackling problems relating to the working conditions and the day-to-day amenities at the work place. The programme should bring about an effective positive interface between workers and officers with a view to helping them understand each others' point of view and appreciate the various dimensions of such problems.

4. The representatives should be helped to develop skills for necessary data collection, understanding of such inter-related data, presentation of factors in the joint committee meetings and persuasive presentation of such factors with a view to increase understanding of their point of view. At the same time, it should also develop skills in listening and understanding others' point of view.

5. The management should be helped to move towards a participative system. It would require basic changes in their attitudes and consciousness as well as various kinds of structural changes in the organisation. □

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Workers' Desire for Participation : An Empirical Study

Deepti Bhatnagar*

At least for the last quarter of a century, workers' participation in management has been a major component of government programmes, particularly in socialist countries. Yugoslavia, West Germany, United Kingdom, United States, Sweden, France, Belgium, have been among those experimenting with this theme, though it has assumed different forms in different countries in order to meet their special needs. In India, the movement for workers' participation was formally launched with the institution of at voluntary scheme of Joint Management Council in 1958. But as a resul of the cool indifference or hostility exhibited by managers as well as workers' leaders, the scheme did not achieve any success.

However, the government is trying to revive the issue of workers' participation once again. Its inclusion in the Prime Minister's 20-Point Programme has invested it with a sense of urgency and importance.

A major contributory factor for the failure of workers' participation schemes in India and in countries abroad is the apathy of workers. Though numerous scientific studies of effects of workers' participation have been conducted by social scientists, little attempt has been made to view it from the point of view of workers. If workers' participation is to become a success, main issues to be explored are whether workers really want participation, and if so, then in what kinds of decisions, with how much intensity and through which institutional forms. Only if a scheme for participation is evolved out of an understanding of the above problems can it find ready acceptance among workers and be useful for the management.

Employee's Attitude Towards Participation : Some Empirical Studies

Ever since the findings of the Mayo experiments, participative management has remained a favourite theme with the social scientists. Numerous field studies, experiments, case studies and surveys have been conducted in the organisational setting to understand the dynamics of participation.

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Underlying all these studies is the assumption that workers have a desire to participate in managerial decision making, and by satisfying that desire, organisational objectives like commitment and productivity can be achieved to varying extents. Only a few researchers have paused to question the legitimacy of this assumption, and still fewer have tried to examine empirically the workers' desire for participation.

In his conceptual framework for participation, Kenneth Walker[1] has discussed the role of situational and human factors in determining the extent of *actual participation*. Under human factors, he included workers' propensity to participate and management's acceptance of workers' participation. Workers' propensity to participate is determined *inter alia* by workers' attitudes towards the idea of influencing managerial decisions and their interest in personally participating in various managerial functions. In his model, Walker acknowledged the significance of employees' participatory desire by maintaining that though situational factors determine the participation potential of a particular enterprise, the human factors (like participatory desire) determine the extent to which this potential can be realised.

Whereas Walker treated employees' motivation for participation as one of the several determinants of the extent of participation, Mulder holds this motivation as the most important determinant[2]. Mulder has argued that in most countries (he cites studies conducted in Netherlands, Yugoslavia, etc.), employees have a low desire to participate in managerial decision-making. Departing radically from other behavioral scientists, Mulder observes, that it is the academician and not the workers, who feel that participation is needed and that structures like works councils with their attendant rules and regulations are the best forms to provide participation. According to Mulder, the main problem to be explored is, "whether with regard to participation the academicians are not acting and thinking too much on the basis of their own motives and abilities ..perhaps these do not coincide with the motives and abilities of others." There is, thus, a need to disentangle academicians' motives and abilities from those of the employees and to study objectively the extent of employees' willingness to participate in organisational dicision-making and the areas in which they want to participate.

1 Walker, K.P. "Workers' Participation in Management : Problems, Practice and Prospects", *IILS Bulletin*, No. 12.

2 Mulder, M, "Power Equalisation Through Participation ?" *Administrative Science Quarterly*, Vol. No. 1 March 1971.

Derber has also emphasised the need for research in this area. Discussing participation as a form of industrial democracy, he observes, "this aspect of industrial government has been the most controversial and the most uncertain. Its future prospect remains equally murky until more understanding is obtained on its fundamental elements. How much and what type of participation do employees want in decision-making and what kinds of participation are they most capable of ?"[3]

Among the few empirical studies of employees' attitude towards participation in decision-making can be quoted the studies of Holter[4]. and Alutto and Belasco[5]. Harriet Holter studied the responses of 1130 subordinate employees in 18 Norwegian firms to a questionnaire concerning their attitudes and reported behaviour in work situation. Holter's most important finding was that though employees expressed desire for more joint participation, the desire was "vague and diffuse". Most respondents did not feel the need for greater *Personal* involvement and control in decisions taken at the top management level. However, there was a widespread desire to increase one's participation in matters related to one's work and immediate work surroundings.

Alutto and Belasco have studied participatory desire in terms of employees' demand for participation and management's supply of it. The authors developed a continuum of participation typified by three conditions : (1) decisional deprivation—where employees get less participation than desired, (2) decisional equilibrium—where demand and supply of participation coincide, and (3) decisional saturation—where employees participate in greater number of decisions than desired. Data for the study were collected from teachers in two district schools in New York State. For a series of twelve decisions the subjects indicated (a) whether they currently participated in the decision, and (b) whether they wished to participate and accordingly their participatory discrepancy was computed. Relating these decisional attributes to personality characteristics,

3 Derbar, Milton, *The American Idea of Industrial Democracy 1865-1965* (London, University of Illinois Press) 1970 p. 527.

4 Holter, Harriet, Attitudes Towards Employee Participation in Company Decision-making Process : A Study of Non-supervisory Employees in Some Norwegian Firms, *Human Relations*, Vol. 18, No. 4, 1965.

5 Alutto, J. A. and Belasco, J.A. A Typology for participation in Organizational Dicision Making, *Administrative Science Quaterly*, Vol. 17, No. 1, 1972.

Alutto and Belasco found that decisional deprivation did not lead to significantly lower organizational commitment than decisional equilibrium or saturation. Aso, the personal and organizational characteristics of respondents belonging to different decisional states were different.

These researches provide valuable insight into participatory desire. In both these empirical studies an attempt has been made to investigate participation from the viewpoint of employees. The findings also suggest that some assumptions about the consequences of increased participation in decision-making need to be modified. For example, Alutto and Belasco found no evidence to support Patchen's[6] contention that decisional participation leads to greater organisational commitment.

Indian Study

In India, unfortunately, little attempt has been made to investigate participatory desire empirically at the micro-level. The few empirical studies of participation have remained confined either to consequences of participation or managerial predisposition for participation.[7] The present study was undertaken in order to fill this gap.

Research Objective

The major problem of this research was to examine, In the Indian industrial setting, the basic assumption underlying Participation Theory, namely, employees' desire for participation. The research objective was to find out the extent to which employees want participation in different areas of managerial decision-making.

Methodology

In order to study respondents' participatory desire, six different areas of decision-making (namely decisions related to one's work, safety decisions, technical decisions, welfare decisions, decisions pertaining to remunera-

6 Patchen. Martin, *Participation, Achievement and Involvement on the Job* (Englewood Cliffs : Prentice-Hall) 1970.

7 See for example, Dhingra O.P. "Participative Predisposition of Managers in the Indian Public Sector Industry" *Industrial Democracy : Some Issues and Experiences* Ed. Thakur and Sethi : (New Delhi) 1973.

tion, and managerial decisions in areas of production, marketing, personnel and finance) were identified. In each such area, several decision problems were included. The schedule consisted of 24 decisions regarding which the respondents had to indicate the strength of their desire to participate.

For structuring the responses, the familiar typology of participation ranging from no sharing of information, sharing of information, consultation, active participation through discussions, to total delegation, was operationalised into eight alternative statements. Union participation was also included as one of the alternatives. For each decision, respondents had to indicate desired participation by choosing one of the eight alternatives (see Exhibit I).

Exhibit I

DESIRE FOR PARTICIPATION

List of alternative responses

1. This decision does not affect me and I am not interested in it.
2. Though the decision affects me, I am not interested in it.
3. I do not want to be involved in deciding this, but I want to know the decision after it has been taken.
4. I want to give my suggestions before this decision is taken.
5. I want to take a direct part in discussions before a decision is made.
6. I want that the management should consult our union before a decision is made.
7. I want to decide on my own.
8. I want to decide after consulting my peers.

In order to find out whether work technology influenced workers' participatory desire, it was decided to conduct the study in two organisations with entirely different technology. A fertiliser factory and a textile factory were selected for the study. Decisional items in the questionnaire were slightly different in the two organisations so as to suit their respective technology. Data were collected from 58 operators and senior operators from the former and 60 workers and senior workers from the latter organisation on the basis of random selection.

Table : 1 Desired Participation (Fertilizers Factory) Frequency Distribution of Alternative Responses

Decision Category	Alternatives Decision	Not affected by the decision and not interested in it	Though affected, not interested in the decision	Want to share information	Wanted to be consulted	Want to participate actively	Want union's participation	Want delegation	Want to delegate but would like to consult colleagues	Total
Decision related to one's work	1. Sequence of work	0	0	7	17	7	1	23	3	58
	2. Method of work	0	0	4	10	6	1	26	11	58
	3. Coordination	0	0	2	7	9	0	10	30	58
	4. Evaluation of work	1	7	31	9	4	1	1	4	58
Safety	5. Safety regulations	0	0	8	20	7	1	19	3	58
	6. Purchase of safety equipment	1	5	15	25	9	1	0	2	58
	7. Quality of new safety equipment	5	9	14	25	1	0	1	8	58
Technical Decisions	3. Time for preventive maintenance	1	3	18	22	9	0	2	3	58
	9. Spare parts inventory	8	6	20	14	7	1	0	2	58
	10. Maintenance priority for jobs	1	0	15	16	9	0	11	6	58
	11. Time for partial shutdown	3	6	27	14	6	0	1	1	58
Personal Decisions	12. One's shift timings	0	7	18	17	2	7	3	4	58
	13. Pay/allowances	0	0	11	8	18	17	2	2	58
	14. Fringe benefits	0	2	14	9	3	29	0	1	58
Welfare Decisions	15. Place for water-cooler	2	3	8	21	10	7	1	6	58
	16. Canteen prices	0	6	9	15	4	20	2	2	58
	17. Club activities	5	6	11	17	7	5	1	6	58
	18. Conveyance for employees	9	9	14	11	4	11	0	0	58
Managerial Decisions	19. Promotion policy	0	4	19	8	4	21	1	1	58
	20. Training programme for employees	24	3	20	7	3	0	0	1	58
	21. Setting production targets	13	6	29	4	4	1	1	0	58
	22. Marketing of product—where and how	42	2	13	0	1	0	0	0	58
	23. Purchase of equipment for one's section	49	3	6	0	0	0	0	0	58
	24. Purchase of equipment some other section	41	2	11	5	0	0	0	0	58

Table 2 : Desired Participation (Textile Factory) Frequency Distribution of Alternative Responses

Decision Category	Alternatives Decisions	Not affected by the decisions and not interested in it	Though affected not interested in the decision	Wanted to share information	Wanted to be consulted	Wanted to participate actively	Want union's participation	Want delegation	Want to delegate but would like to consult colleagues	Total
Decision related to one's work	1. Sequence of work	0	0	10	2	0	0	48	0	60
	2. Method of work	0	0	2	1	0	0	57	0	60
	3. Evaluation of work	1	1	52	5	1	0	0	0	60
Safety	4. Safety measures	2	0	8	24	1	22	3	0	60
	5. Maintenance of cleanliness	0	0	5	54	0	1	0	0	60
Technical* decisions	6. Location of defects in machine	1	1	19	34	3	0	12	0	60
	7. Correction of defects	2	2	32	18	2	0	4	0	60
	8. Replacement of minor spare parts	0	0	33	23	0	0	4	0	60
	9. Replacement of major spare parts	3	1	51	5	0	0	0	0	60
Personal decisions	10. One's shift timings	0	0	38	19	0	0	3	0	60
	11. Pay/allowances	0	0	4	6	0	43	7	0	60
	12. Inter-departmental transfer	0	0	8	49	3	0	0	0	60
Welfare decisions	13. Drinking water facilities	0	0	6	32	1	21	0	0	60
	14. Canteen Prices and menu	5	0	1	0	0	54	0	0	60
Managerial decisions	15. Promotion policy	4	0	43	12	0	1	0	0	60
	16. Training apprentices on the job	24	1	16	2	0	17	0	0	60
	17. Setting production targets	21	0	35	3	0	1	0	0	60
	18 Marketing of product—where & how	35	1	24	0	0	0	0	0	60
	19. Purchase of equipment for one's section	8	0	12	23	0	17	0	0	60
	20. Purchase of equipment for some other sec.	45	0	6	0	0	9	0	0	60

*Decisions under 'Technical' category were borrowed from Sheth, N. R. "Dimensions of Organizational Role : A Case Study of the Supervisor in a Textile Mill" *Indian Journal of Industrial Relations*, Vol. 8, No. 4, April 1973, pp. 586-587.

Some of the major findings are presented in the following section.

Results

Tables 1 and 2 present distribution of responses regarding desired amount of participation for each decision. Data from fertiliser factory and textile factory are presented separately. Figures for each column indicate the number of respondents who desire that particular kind of participation for each decision. A perusal of these tables yields the following facts :

1. Most managerial decisions were perceived as not affecting the employees.

In both the organisations, respondents expressed a general apathy towards decisions pertaining to promotion policy, production targets and marketing problems, hence the large number of responses for managerial decisions under column number 1. There were negligible number of responses for the same decisional category under column number 2 wnich mean that to most respondents these decisions concerned remote issues which were seen to have no connection with their immediate reality.

This is a significant finding, for it indicates that rank and file workers do not care for participation in managerial decision-making through representation on the board. The fact that the same picture changes in both the organisations shows that irrespective of their level of education, technical qualifications and technology of work, employees in general have little concern for these decisions. Though quite a few respondents expressed a desire to know these decisions after they had been taken, they did not desire further involvement through consultation or active participation.

2. There was a widespread desire to share information about safety and technical decisions.

Respondents from both the organisations complained that sometimes they were not even informed about some vital technical decisions and as a result their work was adversely affected. There was a widespread

curiosity about the evaluation of one's performance. Respondents from the fertiliser factory were particularly vocal about the need to know their evaluation reports so that they could improve their performance. As mentioned earlier, some respondents also wanted to share information about managements' long-term decisions about production, marketing, personnel policies, etc.

This highlights the need for a greater dissemination of information by the management. More information sharing was rightly demanded for safety and technical matters, for ignorance of these issues could lead to avoidable accidents or impairement of worker's efficiency.

3. Respondents in both the organisations expressed desire for consultation in safety, technical and welfare decisions.

In the fertiliser factory, the frequency distribution for desired consultation was greatest for new safety equipment, quality of the safety equipment and decisions about fringe benefits. In the textile factory, consultation was sought by most respondents for decisions about maintenance of cleanliness, inter-departmental transfers, and location of defects in one's machines.

Our discussion so far shows that irrespective of differences in technology and other organisational and personal attributes, respondents from both organisations desired similar kind of participation for some decisional categories. This can mean that perhaps the above findings can be generalised to some extent. It also indicates that, to be useful, any scheme for worker participation should have extensive provisions for information-sharing and consultation for safety, welfare and technical matters.

The following discussion indicates some areas of differential responses for participatory desire.

4. In the fertiliser factory, direct participation was desired for some decisions affecting respondents. Workers from the textile factory showed little desire for this kind of participation.

As column No. 5 of Table I shows, some respondents from the fertilizer factory desired an active part in deciding their salary and allowances,

and for decisions about need and place for water cooler (18 and 10 responses respectively). For other decisions there were scattered responses (between one and nine). This is an unexpected finding—normally one would have expected a more widespread desire among educated operators for active porticipation in decision-making.

In the textile factory responses were much fewer. Very few respondents (not more than three for any decision)showed a keenness to participate actively in deciding any issue—even those which affected workers directly.

5. The involvement of the union was desired for wage settlement and welfare issues. However, the demand was widespread in the textile factory; in the fertilizer factory very few respondents wanted it (the difference is attributable to tradition of a strong trade unionism in the former and a weak union in the latter),

In the fertilizer factory, union's participation was desired most for decisions on fringe benefits, formulation of promotion policy, and canteen affairs. But in the textile factory, there was an overwhelming demand for union's paticipation in canteen affairs and wage settlement, (54 and 43 responses respectively). Next came decisions about safety measures for workers and drinking water facilities (22 and 21 responses). This shows that textile wokers trusted their union to look after their safety and welfare.

An interesting feature in the textile factory was that though few respondents opted for individual participation, a large number wanted their union to participate in making different decisions. Respondents attributed their diffidence for personal participation to their lack of education and understanding of organisational affairs. Yet theoretically, they all believed strongly that workers should share management's power of making and executing decisions. Therefore, they wanted the union to represent workers' interests in different decision-making situations.

6. Decisional delegation was desired for work decisions in both organisations. Majority of respondents expressed a desire to have complete freedom in deciding the method and sequence of their work. In both organisations superior's interference in routine tasks of employees was resented.

There was negligible demand for delegation in other decisions. The only noticeable exception was in the fertiliser factory. There, one-third of total respondents demanded total freedom to decide safety regulations and precautions on the job. This can be explained in terms of the accident-prone nature of chemical technology. Because of relatively high incidence of mishaps in the factory and a vague feeling that management was indifferent towards employee safety, respondents wanted that safety decisions should be delegated to lower levels where it really mattered.

In the textile factory major accidents seldom took place and as a consequence safety issues did not generate so much concern.

This implies that safety matters assume different significance for workers according to the work technology. Therefore, supply of participation for safety decisions has to vary as one moves from less accident susceptible to more accident-susceptible technology.

Conclusion

The above discussion can be summed up in the following table :

Table III Demand for Different Participatory Forms in Textile and Fertilizer Factory

Decision category	*Form of participation demanded in*	
	Textile factory	*Fertiliser factory*
1. Decisions related to one's work	Delegation	Delegation
2. Safety	Information sharing and consultation	Consultation and delegation
3. Technical decisions	Information sharing	Information sharing
4. Personal decisions	Union participation	Personal participation
5. Welfare decisions	Union participation	Personal and union participation
6. Managerial decisions	Apathy or information sharing	Apathy or information sharing

In so far as findings of this research study can be generalised, we have found evidence in support of the following propositions :

1. For categories listed above, workers desire decreasing amount of participation from first to last decisional category. Thus, whereas for work decisions there was a widespread demand for delegation, for managerial decisions respondents' interest was confined to indifference or mere sharing of information.

2. As we move from primitive to advanced technology (represented here by textile and fertilizers), in general the demand for participation increases. For safety decisions, textile workers would be content with information sharing or with some consultation but fertilizer employees demand not only consultation but also delegation.

3. In industries like textile with a long history of established trade unionism, union participation is desirable for decisions about remuneration and welfare decisions.

In new and growing organisations like fertilizers where organisational emphasis is on individual excellence and there is little identification with unions, the accent is on personal participation. In such organisations, employees themselves like to take part in making decisions instead of being represented by unions. Therefore, these managements can plan to have greater individual involvement for different decisions.

These findings indicate that demand for different forms of participation varies from decision to decision and from organisation to organisation. Therefore, instead of institution of a macro-level participation scheme, each organisation or at least each industry can evolve its own participation plan so that workers can derive maximum satisfaction out of it. The present research has sought to provide guidelines for a selective approach to participation. □

Workers' Participation in Management in Steel Industry

N. K. Singh*

The Steel Industry in India has a long tradition of workers' participation in management. Right from the time TISCO (1956) and Bhilai (1960) initiated workers' participation in management, various other steel plants have been involving their workmen in welfare and settlement of grievances in various forums. In 1971, Production Committees were formed in Rourkela which paved the way to a new approach to the work-based participation in steel industry. The participation for the steel-men, therefore, means much more than mere representations on a bipartite forum. It means a culture which has openness to new ideas and imbibes receptivity to various viewpoints in forging ahead for progress and higher production and productivity.

The declaration of Emergency and introduction of the 20-Point Economic Programme, has ushered in a new era of industrial progress in the steel industry. The most important single factor responsible for this is the tremendous response from workers to the scheme of workers' participation, which resulted not only in increased production and capacity utilisation, but a record reduction in the manhours lost in steel plants.

Participation from Shop Level to Apex Level

The Joint Negotiating Committee for the steel industry broke new ground in the history of industrial relations in India with the setting up of Joint Negotiating Committee for the Steel Industry in 1969. This Committee, now known as the National Joint Consultative Committee for the Steel Industry in India, is dealing with the problems of the steel industry as a whole at the national level. Apart from the national agreements arrived at by this committee in 1970 and 1975, it deals with matters of national importance such as the setting up of annual production targets for the steel plants and for the industry, standardisation of wage and other benefits through its Standardisation Committee and environmental control and welfare matters. The committee consists of 15 representa-

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tives of the workers and eight representatives of the employers. The Committee has played an important role in the growth and development of the industry, particularly ensuring harmonious and peaceful industrial relations that have prevailed in the recent past.

There is a three-tier system of joint consultation in the steel plants (bipartite committees at the plant level, zonal level and bipartite committee at the department level). Floor level committees have been set up in all the operation and maintenance services. The shop-floor committees discuss day-to-day shop problems. They are also responsible for reviewing production performance, increasing productivity and maintaining discipline at the shop-floor level.

Various forums of workers' participation are functioning in all public sector units under Steel Authority of India Ltd. (SAIL) as also in TISCO and IISCO. In the Steel Plants and its captive mines including TISCO, IISCO and VISL, there are about 546 Joint Committees at the shop and plant levels in which over 2335 workers and an equal number of management representatives are involved.

Magnitude of Workers' Participation in the Steel Industry

Plant/unit	*No. of Apex/Central committees*	*No. of Zonal/Departmental committees*	*No. of shop-floor committees*	*Total*
1. BSP	6	36	140	182
2. RSP	7	9	52	68
3. DSP	8	5	60	73
4. ASP	6	—	17	23
5. BSL	1	—	26	27
6. IISCO	5	—	2	7
7. VISL	7	—	16	23
8. TISCO	15	6	38	59
9. HSCL	2	3	11	16
10. NMDC	1	34	24	59
11. Bolani ores Limited	7	—	4	11
Total	65	93	390	548

One of the important steps to ensure employee motivation is to promote satisfaction of employees. The grievance committees meet frequently. The number of grievances disposed off by these joint committees during the year 1975 is 1688.

The other bipartite committees also meet every month and the number of meetings held by each during the quarter January-March 1976 are indicated below, covering plant and mines :

Name of the Plant	*No. of meetings held*	*No. of recommendations made*	*No. Implemented*
BSP	410	832	489
RSP	74	210	139
DSP	37	13	13
ASP	81	190	119
BSL	63	216	94
VISL	189	122	73
HSCL	33	85	87
	887	1668	1014

The survey of industrial relations in the steel industry presents a bright picture and with the active cooperation and understanding on the part of the workers and the trade unions, there is every hope that 1976-77 will be harmonious and the industrial relations climate will be conducive to maximum output.

With such a large complex of workers' participation system working in the steel industry, it is useful to look at the rewarding experience obtained during this process. It is extremely difficult to isolate factors to pinpoint any one ingredient of the entire structure or living experience to be responsible for a particular task and yet judging from certain broad indications some of the gains of the participative system can be mentioned :

(a) The entire organisational structure of the steel industry has become more open to various viewpoints and ideas from all levels of working in the organisation. The working of the bipartite forums has provided a free access to the workers to systematic and proper utili-

sation of data made available to them. This has cleared the channels of communications.

(b) The man-hour loss in steel industry has shown steep decline as evident from the following figures :

	1974-75	*1975-76*	*1976-77 (1st two quarters)*
Total in four Steel Plants	5,27,776	41,981	Nil

(c) Looking to the impact on productivity, the steel production has shown an upward trend and even the manpower productivity indices are showing positive achievements. The comparison of ingot-tonne per man-year during the last two years is given below :

Productivity figures	*1974-75*	*1975-76*
Bhilai Steel Plant	70	76
Rourkela Steel Plant	48	54
Durgapur Steel Plant	35	44

(d) From the feedback which we have received from the trade unions and the management who are operating participative forums in their plants, the trade unions have positively responded to the added emphasis on approach to participative management and displayed keen desire to share responsibility while sharing power. This has led to a healthy employee-employer relationship.

In a large sector employing 2,50,000 persons, the problems will continue to crop up. The strength of the system, however, lies in constructively resolving the problems at various levels with a view to contributing to higher productivity and better climate in the organisation. The present system of participation functioning right from the shop level to the apex level in the form of National Joint Consultative Committee has proved its merit. Detailed studies in this matter have revealed considerable improvement in understanding as well as added problem-solving ability of the organisation at different units. At times, the issues have cropped up with regard to the representation and with regard to the promptness and efficacy in handling the matters raised in the bipartite forums. Conti-

nuous review of the systems and the reports are received at the Steel Authority of India to analyse and provide guidelines for better and improved performance. In this context, it is interesting to observe that British Steel Corporation is still grappling with the multiplicity of the unions to evolve an effective system of workers' participation in management. The values and systems of participative style have, however, taken roots in the steel industry of India. In the times to come, it is planned to put more emphasis on training of the managers and workers in the system of workers' participation in management as also to apply quantitative techniques in judging the performance of the system. The future of steel industry, therefore, holds the promise of various possibilities in new directions and in new horizons. □

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Scheme for Workers' Participation in Industry at Shop-Floor and Plant Level

One of the items in the Prime-Minister's 20-Point Economic Programme relates to the introduction of schemes for workers' participation in industry, particularly at the shop-floor level and in production programmes. In pursuance of the same, the government announced a scheme for workers' participation in industry through a Resolution on 30th October, 1975. Text of the Resolution is reproduced below.

1. To begin with, the scheme will have to be flexible so as to allow variations to suit local conditions and hence will be implemented through executive action. Various forms of workers' participation are already in vogue in certain units in different industries, particularly in the public sector. Gevernment are, therefore, of the view that the matter should be left to the initiative of the managements to evolve a suitable pattern of participation depending upon the nature of each unit. Legislation will be considered after adequate experience is gained.

Coverage

The scheme will be implemented, in the first instance, in manufacturing and mining industries whether in the public, private or cooperetive sectors. These will include also units run departmentally, whether or not the Joint Consultative Machinery set up is functioning in such units.

The scheme, for the present will apply to those units in such industries which have 500 or more workers on their rolls. The scheme will provide for shop councils at the shop/departmental levels and Joint Councils at the enterprise level.

Shop Councils

The main features of the Scheme of Participative Management through shop councils may be as follows :

(i) In every industrial unit employing 500 or more workmen, the employer shall constitute a shop council for each department

or shop, or one council for more than one department or shop, considering the number of workmen employed in different departments or shops;

(ii) (a) Each council shall consist of an equal number of representatives of employers and workers;

(b) The employers' representatives shall be nominated by the management and must consist of persons from the unit concerned;

(c) All the representatives of workmen shall be from amongst the workers actually engaged in the department or the shop concerned;

(iii) The employer shall decide, in consultation with the recognised union or the various registered trade unions or with workers, as the case may be, in the manner best suited to local conditions, the number of shop councils and departments to be attached to each council of the undertaking or the establishment;

(iv) The number of members of each council may be determined by the employer in consultation with the recognised union, registered unions or workers in the manner best suited to local conditions obtaining in the unit; the total number of members may not generally exceed 12;

(v) All decisions of a shop council shall be on the basis of consensus and not by a process of voting, provided that either party may refer the unsettled matters to the joint council for consideration;

(vi) Every decision of a shop council shall be implemented by the parties concerned within a period of one month, unless otherwise stated in the decision itself and compliance report shall be submitted to the council;

(vii) Such decisions of a shop council which have a bearing on another shop, or the undertaking or establishment as a whole will be referred to the joint council for consideration and decision;

(viii) A shop council once formed, shall function for a period of two years. Any member nominated or elected to the council in the mid-term to fill a casual vacancy shall continue to be a member of the council for the unexpired portion of the term of the council;

(ix) The council shall meet as frequently as is necessary and at least once in a month;

(x) The Chairman of the shop council shall be a nominee of the management; the worker members of the council shall elect a vice-chairman from amongst themselves.

Functions of the Shop Councils

The shop councils should, in the interest of increasing production, productivity and overall efficiency of the shop/department attend to the following matters :—

(i) Assist management in achieving monthly/yearly production targets;

(ii) Improvement of production, productivity and efficiency, including elimination of wastage and optimum utilisation of machine capacity and manpower;

(iii) Specifically identify areas of low productivity and take necessary corrective steps at shop level to eliminate relevant contributing factors;

(iv) To study absenteeism in the shops/departments and recommend steps to reduce them;

(v) Safety measures;

(vi) Assist in maintaining general discipline in the shop/department;

(vii) Physical conditions of working, such as, lighting, ventilation, noise, dust, etc., and reduction of fatigue;

(viii) Welfare and health measures to be adopted for efficient running of the shop/department; and

(ix) Ensure proper flow of adequate two-way communications between the management and the workers, particularly on matters relating to production figures, production schedules and progress in achieving the targets.

Joint Council

In every industrial unit employing 500 or more workers, there shall be a Joint Council for the whole unit. The main features of the scheme of Joint Council may be as follows :

(i) Only such persons who are actually engaged in the unit shall be members of the joint council;

(ii) The council shall function for a period of two years:

(iii) The chief executive of the unit shall be the chairman of the joint council; there shall be a vice-chairman who will be nominated by worker-members of the council;

(iv) The joint council shall appoint one of the members of the council as its Secretary. Necessary facilities for the efficient discharge of functions by the Secretary shall be provided within the premises of the undertaking/establishment;

(v) The term of the council, once formed, shall be for a period of two years; if, however, a member is nominated in the mid-term of the council to fill a casual vacancy, the member nominated in such vacancy shall continue in office for the remaining period of the term of the council;

(vi) The joint council shall meet at least once in a quarter;

(vii) Every decision of the joint council shall be on the basis of consensus and not by a process of voting and shall be binding on employers and workmen and shall be implemented within one month unless otherwise stated in the decision itself.

Functions of Joint Council

1. The Joint Council should deal with matters relating to :

(i) optimum production, efficiency and fixation of productivity norms of man and machine for the unit as a whole;

(ii) functions of a shop council which have a bearing on another shop or the unit as a whole;

(iii) matters emanating from shop councils which remain unresolved;

(iv) matters concerning the unit or the plant as a whole, in respect of matters relating to work planning and achieving production targets; more specifically, tasks assigned to a shop council at the shop/department levels but relevant to the unit as a whole will be taken up by the joint council;

(v) the development of skill of workmen and adequate facilities for training;

(vi) the preparation of schedules of working hours and of holidays;

(vii) awarding of rewards for valuable and creative suggestions received from workers;

(viii) optimum use of raw materials and quality of finished products; and

(ix) general health, welfare and safety measures for the unit or the plant.

Composition

There is considerable diversity in the situation prevailing from unit to unit in different industries. Even departmental undertakings and public enterprises under the same Ministry of the Government of India, have had to adopt different systems depending upon the local conditions and their individual needs. Keeping this diversity in view, no uniform pattern is being laid down for the constitution of Shop Councils and Joint Councils, particularly relating to the representation of workers. The management, in consultation with workers, should evolve the most suitable pattern of

representation so as to ensure that the representation of the workers results in effective, meaningful and broad-based participation of workers.

Communication

For any scheme of workers' participation to succeed, there must be an effective two-way communication and exchange of information between the management and the workmen. It is only then the workers would have a better appreciation of the problems and difficulties of the undertaking and of its overall functioning. With this end in view, each unit should devise a suitable system ot communication within the undertaking.

Works Committee

The Works Committees, as prescribed under the Indusirial Disputes Act, shall continue to function as at present.

Appropriate Government

The scheme not being statutory, the concept of "appropriate government" as in the I.D. Act is not relevant. However, the Central and State Governments have an important role in promoting the healthy and speedy implementation of the scheme in as large a number of units as possible. While the initiative for the introduction of the scheme will mainly be with the undertakings concerned, all matters relating to the operation of the scheme will be dealt with by the Central Government in the case of the public sector/departmental units of the Central Government.

Conclusion

Government are aware that it is only by providing for such arrangements for workers' participation, particularly at the shop-floor and unit level, that the involvement of workers in the effective functioning of the unit and in improving production and productivity can be ensured. Government would, therefore, appeal to all the managements and workmen and trade unions concerned to take speedy and effective measures for the early adoption of the scheme in their units and for its continued healthy functioning.

Book Reviews

Price and Investment Relations : A Study in Applied Economics

Sir Robert Shone,

Paul Elek, London,
Available in India through Messrs. B.I. Publications, Lansdowne House, 18 Lansdowne Road, Bombay 400039, 1975, Rs. 126.75.

Reviewed by P. Chattopadhyay*

Sir Shone has drawn a wide canvas, providing sharp contours of various considerations bearing on the relationship between pricing and investment. He has deftly dealt with delicate issues that have called for urgent attention for purposes of policy, research studies covering different aspects of the issue have been relatively few and far between. The tenor of discussion adopted by the author is objective and analytical, while the factual support for individual contentions is irrefutable. Whether one agrees with him or not, the issues raised and the methods adopted for analysing them for churning out the possible policy guidelines and, above all, the pointers raised in the book have much to commend itself for wide readership among professionals and policy makers. The case example of British Steel Industry enhances its value to different classes of readers.

Divided in three parts, the volume deals with various interconnected issues. *Part one* spotlights on the interplay of pricing, investment and technical progress. Its focus is laid on areas such as new plant pricing, longterm marginal cost prices and technical progress and investment. *Part two* presents a price/investment systems model and its major parameters, reflecting on the constituent elements of the price and investment model, inflation and taxation, cost of capital, replacement investment and a review of the systems model in the light of real-life considerations. *Part three*, dealing with steel pricing, presents an analytical insight into steel price policy in Great Britain and its outcome; a running commentary on different aspects of the trends in long-term marginal cost pricing with reference to steel, and steel pricing and the EEC, stressing on various aspects of the EEC steel pricing policy. In eight appendices,

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the author presents the computer calculation of systems model, alternatives to graphical presentation, construction of index of value added for steel, export and home steel prices, labour, fuel and capital productivity in the steel industry, capital and operating cost savings, treaty constituting the European coal and steel community : prices-articles 60-64 and derivation of stock investment and tax formula. In sum, the context of price and investment, the relationship between them and the intricacies involved in each have been probed with a rare thoroughness and competency while the entire account has been readable, *albeit* interspersed with statistics in different chapters.

The author cautions about the possibilities of causing damage to economic performance through pursuance of policies that tend to frustrate the cost-reducing impact of techonological developments involving investment. He cites as an example of such likely damage through the attempt of successive British Governments to keep down the general price level by artificially holding down prices paid by direct consumers at the expense of costs that enter into industrial activity. He refers to the fact that the ratio in the United Kingdom between industrial and domestic prices for coal, electricity and road transport, in the late 1950s, was about twice as high as the ratio prevailing in other major continental countries. It was patent then that the UK was cross subsidising the domestic user as against the industrial user to an exceptional degree. Taking note that the circumstances in which many of the price and investment decisions are reached have altered radically over recent decades, the author goes into the details of some of these circumstances to unravel the truth, to put on a platter and, more particularly, to underscore that a major function of management is "the determination of an investment programme in relation to an appropriate price policy". Whether the entire discretion in this context lies with the management, is, however, a different matter and is somewhat beside the main point here. It is a truism in our country that the management can hardly do much in this respect, the area of discretion being rather limited. The major thrust of the discussion in the book is with reference to what constitutes an appropriate price policy and what are its relations to investment.

Designed as a work on managerial economics, the book has for its audience both students of management and economics as also businessmen concerned with issues of pricing and investment. Though the analysis

presented in the book is theoretically sound and detailed, its value has been much enhanced by the elaborate discussion on steel pricing in the prevailing context of the British economy, affording a comparison of policies and practices in vogue in the USA and, also, in our country. It has much relevance to the pricing and investment phenomena in India, both public and private sectors. Especially, in the Indian iron and steel industry, several knotty problems have remained rather unsolved. This book will help sorting out several such problems involving a good deal of balancing act. to say the least. □

Fundamentals of Industrial Sociology

Pascual Gisbert S.J.
Tata McGraw-Hill Publishing Co. Ltd., New Delhi, pp. 369. Rs. 27.00
Reviewed by J.P. Singh*

The present book is the last of the triology by the author, the earlier two being the *Fundamentals of Sociology* and *Preliterate Man*. The author has intended the present book to be a comprehensive work centred around the socio-industrial realities of India since Independence. Divided in four parts, the book promises an overall view of the fundamental concepts and problems affecting modern industrial society together with relevant theories, researches and experiments.

Part I deals with the nature and growth of industrial sociology. It defines the field of industrial sociology and distinguishes it from other related fields like industrial psychology, economics, personnel management and social welfare. Various phases of industrial development, with referance to ideologies accompanying them, are discussed. A portion is devoted to rise of industry in India. A chapter is allocated to the phenomenon of work as distinguished from art and recreation. The

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section culminates by describing the Hawthorne studies and the rise of industrial sociology as a field of study.

Part Ii deals with the internal structure of industry and, in the words of the author, is the most central and genuine part of the book. The formal and informal aspects of organisation are discussed at length, besides studying the levels and role relationships in an industry. A chapter each is devoted to three major elements of industrial organisation, namely, the management, the supervisory staff, and the labour. Further, attention is paid to the staff-line relations within the management ranks.

Part III discusses the social context of industry by studying those institutions, organisations and events which form an integral part of industrial society. A full chapter is devoted to the organisation of labour and the origin and development of Trade Unions. Focus is then shifted to collaboration movement between labour and management in Indian context and an examination of the interaction between industry and society.

Part IV introduces the reader to the Ahmedabad Experiments of A.K. Rice, the South Essex Studies of Joan Woodward and the Luton Experiments of Goldthorpe and others. A chapter is devoted to various theories that have dealt with the social problems of industry. Considerable emphasis is laid on what the author calls "congruence approach". The concluding chapter is devoted to a projection into the future affluent society.

The book is well wrltten and the contents are well organised and carefully chosen. The opening statements for each of the four parts, the summaries, the suggestions for further study, and question and problems for study and discussion at the end of each chapter, will be especially useful to students. The section on internal structure of industry is very good. A salient feature of the book is its inclusion of the Ahmedabad, South Essex and Luton experiments. This is an example that more industrial sociologists should follow. The author has taken special care to make the book relevant to Indian context by making frequent references to Indian scene.

However, certain drawbacks of the book must also be highlighted. It seems that the author is somewhat defensive about his field of study,

His comments about the inadequacy of title and real title of the field are rather unnecessary. His distinction that when a worker kicks his machine, we are faced with a psychological phenomenon, but when the same worker is scolded by his supervisor, it becomes a sociological phenomenon, is rather naive and will not find acceptance among psychologists.

A major omission is in the section on the social context of industry. Although the author promises it to be a study of those institutions, organisations and events that form an integral part of industrial society, the focus has been laid on the trade unions and labour movements at the expense of government institutions and various management organisations.

Another drawback is the excessive reliance on secondary sources. When an author quotes *Fortune* 1964 as quoted by *Miller and Form*, 1951 (p. 5) or *Stuart Chase* as quoted by *Miller and Form*, 1951 (p. 54), the researcher has to be careful. Further, the scientific precision of language is not always adhered to. For example, the author states that the workers of Rice's Ahmedabad experiment had been deprived of satisfaction by the "ruthless march of mechanisation and urbanisation". How urbanisation affected the worker dissatisfaction in this experiment, is not clear.

On the whole, the book can be recommended for the undergraduate and graduate students but the teachers and research scholars will find it somewhat wanting.

□

Intra–National Transfer of Technology

Asian Productivity Organisation, Tokyo

Available in India through Jaico Publishing House, Bombay. pp. iv+161, 1976

Reviewed by J.V. Bapuraj•

The problem of transfer of technology to small industries, with particular reference to Asian countries, formed the subject of a symposium organised by the Asian Productivity Organisation (APO) in Tokyo from February 24 to 28, 1975. The book contains six papers presented at the symposium, along with a useful summary of the papers. Technology, as Dr. Jack Baranson, President of the Development World Industry and Technology, Washington D. C. points out in his paper, consists of three principal elements, viz., (1) product designs; (2) production techniques and plant layout including blue prints and flow charts, process sheets, fabrication instructions, tool and fixture design and operational procedures, and material specifications; and (3)management systems involving plant design and layout, quality control and testing, materials procurement, inventory control, equipment maintenance and repair, and machine loading technique. After analysing the various aspects of transfer, with reference to four firms as widely located in Japan, Columbia, the U. S.A. and Canada, Dr. Baranson concludes that the time and resources required for enterprise-to-enterprise transfer are largely a function of the following five variables :

(a) The absorptive capabilities of the recipient enterprise (R-factor); (b) the supplier enterprise transfer capabilities (S-factor); (c) the quantum and complexity of what is transferred (T-factor); (d) the mode of technology and the recipient's absorptive capabilities (G-factor).

Dr. Baranson's paper is a model of methodical analysis and conceptual clarity and should serve as a spur to similar studies of the kind he has made of the four firms, in developing countries.

Prof. Keinosuke Ono of the Keio University, Japan, deals with the development of the flatware industry (utensils) in Tsubame city, Japan,

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where there was a nucleus of only artisans making nails in the 17th century. The introduction of the electrolytic polishing technology, 13-chrome steel and various processing machinery provided the stimulus to the development. Prof. Ono highlights the role of various agencies in promoting the process of transfer – industry associations, academic institutions, the Government (through modernisation laws and financial and fiscal measures), and the prefectural technical centres. "If even one of these principal elements had been missing," he says, "the technological advance of the flatware industry in Tsubame would have been delayed considerably". The story of Tsubame has many lessons for us in regard to the concerted action needed to promote any change in industry in any particular area.

Dr. S. K. Subramanian of India describes the ancillary relations that have been encouraged and developed by Hindustan Machine Tools, Indian Telephone Industries, Bharat Electronics Ltd., Enfield (India) and Escorts. He deplores the tendency to seek economy on costs of production through exploitation of labour, and pleads for a symbiotic relationship between parent and ancillary units. Dr. Subramanium thus looks at the problem of technology transfer in terms of complementarity of large and small firms.

An excellent account of the way small sub-contracting firms were guided and technically upgraded by Nissan Motors Ltd. (turning out one million cars a year) is given by Mr. Junzo Wada, Managing Director of the firm. Mr. Susumu Mishima of the Small and Medium Enterprise Agency of Japan details the Japanese Government measures of assistance for technology transfer and cites the cases of transfer of new mould-making and mound-coating processes to the foundries in Nagano Prefecture.

The book, wich is produced with the usual standard of excellence associated with all APO publications, deserves careful study by all those interested in development of ancillary industries in our country. □

Inflation Accounting Tools and Techniques

P. Chattopadhyay
Institute of Cost and Works Accountants of India, Calcutta, Pages 198, Rs. 45.

Inflation Accounting As Tool To Fight Inflation

Bahadur Murao
Institute of Cost and Works Accountants of India, Calcutta.

Reviewed by N. L. Dhameja*

Accounting as a medium of communication must communicate the operating results to interested parties. In order that the communication is effective and meaningful, it needs to be reoriented in the period of changing economic environment and rising prices. These two books attempt to deal with inflation accounting and the various tools and techniques of inflation accounting and their application to fight inflation.

The first book aims at surveying the present thoughts on the subject in various quarters and in showing the details of conversions of historical costs into current costs, with the object of helping the readers to formulate their own opinion on the subject. The fundamental issues like capital maintenance, concept of capital and depreciation for replacement are discussed during inflationary trends. The difficulties of converting accounting for inflation are also described.

Dr. Chattopadhyay has surveyed the response to inflation accounting in various countries like U.S.A, U.K, Australia and Canada and has portrayed the debates on the subjects by academicians, industry and professionals in ten appendices (appended to chapter 2 of this study). There is said to be mixed response to the need for adjustment of historical accounting to inflation accounting in U.S.A., U.K. and Australia while there is no serious thinking on this subject in India.

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Four cases have been presented to show that the financiai results after adjustment for inflation are better appraised than the results on historical costs. In the first two case studies—Madras Fertilisers Ltd. and Coromandel Fertilisers Ltd.—full adjustments are made from year to year with various non-monetary and monetary items on the basis of three price indices : GNP Deflator, Whole-sale Price Index, and Consumer price index. The working of these adjustments are given in different cost sheets.

In the latter two cases, the two companies—Carborandum Universal and Ashok Leyland—adopting the partial adjustment process of inflation accounting as a supplement to their Annual Reports have been presented to show that due to adjustment of non-monetary and monetary assets the reported profits have reduced.

According to Dr. Chattopadhyay, partial adjustment for inflation in accounting would tend to mislead both shareholders and the company management with respect to the impact that inflation creates on the value of assets and liabilities, operational cost and sales revenue in varying conditions over time. However, due to simplicity and low cost involved, the partial adjustment may be preferred by management and it does not matter if the process of conversion is logical.

While the first book described above relates to inflation accounting pertaining to an enterprise accounting, the second book aims to develop an inter-disciplinary approach to problems of inflation accounting. The latter is directed towards reorientation of concepts, thought processes and behaviour pattern by managers, administrators, executives and operatives in all walks of life, more particularly, in the matter of accounting, in the peculiar environment of rising prices as well as high level of prices in Indian socio-economic environment. The study emphasises the importance of inflation accounting to enterprise accounting, social accounting and national accounting and states that the decisions at enterprise, social and national levels based on historical cost-based accounting figures may not be appropriate and the object of inflation is severe on capital-intensive industries.

The book by Murao is divided into three parts. The first part deals with the object, scope and methodology and points out the size of the change in price level in Indian economy. Part two of the study discusses a few

case studies of enterprise accounting both from public and private sectors to highlight the effect of inflationary trends with the objective to help development of tools to focus attention on the effect of inflationary trends on operational profits and financial health of enterprise. Partial revaluation accounting on the basis of the average wholesale price indices, rather than complete Revaluation Accounting, is adopted in respect of fixed assets for these case studies.

The net profits so adjusted on the above basis, with an object to keep capital intact indicates that there is wide divergence of operational profits and reported profits in published accounts and this divergence is wide in 1973-74—the year of high inflation rate.

Besides enterprise accounting, the part II discusses the inflation accounting with respect to under-utilisation of capacity, social accounting and national accounting. The effect of inflationary trends on the equitability of distribution of social benefits and national income has to be carefully monitored. The study recommends that it would be interesting to find out by actual case studies in social accounting, the effect of inflationary trends on the net availability of net social benefits, between various regions, zones and economic groups.

Part three refers to various areas where tools of inflation accounting can be applied to arrive at meaningful results. Murao contends that there is a continuous need for deliberate and conscious election of hard choices as distinct from those of soft choices by conscious or unconscious yielding to the temptations for selection of the path of least resistance. In the absence of hard, hitting objective-oriented and performance-oriented outlook, by election of hard choices where necessary, technology of inflation accounting cannot provide adequate administrative management tools to fight inflationary trends.

Technology of inflation accounting should be used for evolution of appropriate managerial and administrative tools for optimisation of productivity (and profitability) by all government departments which function as productivity centres in their capacity as quasi-commercial department. All other government departments not classified as productivity centres should be treated as catalytic agents for attainment of the planned socio-economic national goals. ❑

The conventional system for computation of productivity in financial and accounting terms should be reoriented towards computation of economic and physical productivity of human, material, capital resources and services on selective basis. The annual reports of companies should also report on the physical productivity in respect of finished and intermediate goods on selective basis.

In all government operations, there is a need of introduction of management by objectives and in our mixed economy, as distinct from west or communist countries, there is a need to provide more realistic measurement of productivity and profitability under the actual socio-economic existing environment for development of appropriate inflation accounting techniques.

According to Murao, application of inflation accounting techniques should help to locate points and transactions of government operations at which profits are earned by individual employees, public servants as also by departmental agencies and organisations of the department without adequate contribution of wealth to the national economy. In order to eliminate unrealism in the policy decisions at the highest level on the basis of the information collected through files due to inflationary tendencies, it is recommended that a senior government empleyee should spend at least a fortnight each year in a selected backward area along with the residents there and should understand their problems.

The primary sector consisting of agriculture, forestry, logging, fishing, contributes about half of the net domestic product. There is an urgent need to develop simple techniques of accounting, relating to primary sector considering the differences in size of farmers, as tools of optimisation of productivity in the sector.

The technology of inflation accounting requires an urgent need for live researches for reorientation of the dynamics of information technology in respect of Management Information System (MIS), Government Information System (GIS), and Public Information System (PIS).

To sum up, Dr. Chattopadhyay's book discusses the process of inflation accounting as applicable to enterprise accounting and presents to the manager and researcher the available literature and reproduces the

same in ten appendices. The treatment of monetary assets is described but is not elucidated in the cases presented. Murao's book is oriented towards accounting of total welfare of the human beings and is a comprehensive study on inflation accounting. It raises a number of issues and provides problems to researchers for study.

In short, both the studies discuss the problem of inflation accounting at various levels, and are good guides for researchers and policy makers. But in order to make it handy for management for decision-making, it would require another detailed study. □

Wage System : Its Effective Management

G. K. Suri,
All India Management Association, New Delhi, 1976. pp. 54, Rs. 15.00

Reviewed by P. Chattopadhyay*

Evolving effective management of wage systems has been a thorn in the flesh in many an Indian organisation. While abandonment of piecework system and adoption of time scale in both public and private sectors of the economy have sought to protect the cause of the worker, the rationale of the wage system is yet far from sound in many a case, particularly when one considers the relationship of the wage system with job responsibilities, efficiency, technical skill and occupational hazards. This complication is apart from the multiplying components of the workers' pay packet, partly responding to the external environment, i.e., the ruling prices and partly to the extra pressure on the wage earner in terms of overtime. In many cases, wages have been subject to trade union pressures and in many others to fixation of wage scales by Wage Boards. The picture emerging from all this is anything but clearcut. Suri touches this extremely delicate area of management and deals in this short volume with various issues of everyday importance to both management and the worker in different types of organisations.

*Director (Research), Institute of Cost & Works Accountants of India, Calcutta.

This short exercise is divided into several chapters such as the wage system and its effective management, the pay packet and its rationality, wage linked with productivity, dearness allowance, internal equity, external equity, intrusion of irrational elements in wage structure and trends and guideposts, apart from a short select bibliography.

The author emphasises that there is a growing need for defining and developing the wage and salary administration function in an organisation and determination of its location and manning. For this purpose, he enumerates the functions and responsibilities of a wage and salary administration programme, which are :

(i) formulation of wage and salary plans;

(ii) establishment of criteria for wage determination:

(iii) establishment of job evaluation systems including rating, differentiation and fixation of job standards;

(iv) ascertainment of ongoing rates for jobs in industry/community;

(v) analysis of government wage regulations, company wage policies and agreements with unions to maintain uptodate wage rates;

(vi) making policy recommendations;

(vii) rating employees and recommendation of wage increases;

(viii) establishment of fringe benefit and other supplementary compensations;

(ix) recommendation and administration of plans for wage incentive systems; and

(x) supervision and maintenance of records pertaining to all matters of compensation.

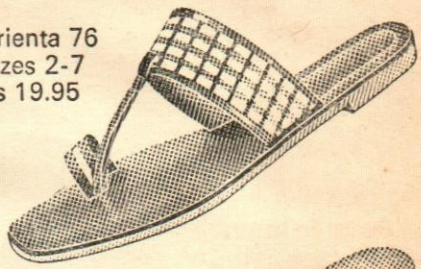
iscussing the rationale of the pay packet, he focusses on important as of action in a corporate wage policy. In his view, the bulk payments must be linked with the outcome of work, that is, wages ould be linked with productivity. Secondly, he suggests that basic ages must be the predominant element in the pay packet. This may imply erging the bulk of dearness allowance in the basic wage. He suggests closer examination of the nature, pattern, extent and quantum of fringe

benefits. As regards linking wages with productivity, he underlines the need for controlling performance for the wages paid, linking statutory bonus with productivity, wage incentives bonus, introduction of annual improvement factor in collective bargaining, productivity bargaining and developing and in installing wage cost controls.

In the context of internal equity, he deals essentially with job evaluation programmes and the practical ways of introducing such programmes. While his discussion on external equity relates to the industry-wage structure or even interindustry wage structure *vis-a-vis* the company wage structure, his pointer that there exists a data gap is real and requires to be filled in. He cautions that payment methods such as incentives can induce inequalities and destroy the basic wage relationships that might have been established through job evaluation. To ensure a more sound rationale of the wage system, he underlines the need for monitoring, so that irrationalities can be detected in proper time and corrective actions taken.

In a short compass of only 54 pages, the author has been able to give a cogent account of the wage system and its components while taking note of different practical constraints, problems and possibilities. His recommendations deserve serious consideration, particularly in the context of the declaration by our Prime Minister that wages and bonus should be linked with productivity. Managers in public and private sector industry and policy makers should benefit from a perusal of the book. □





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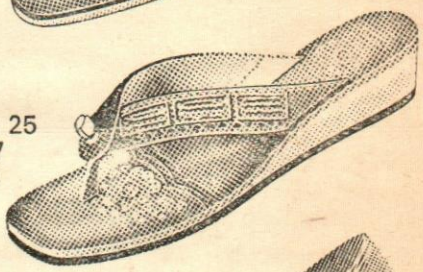

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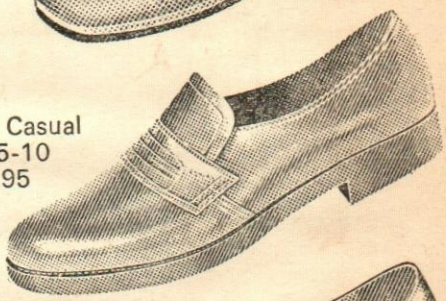

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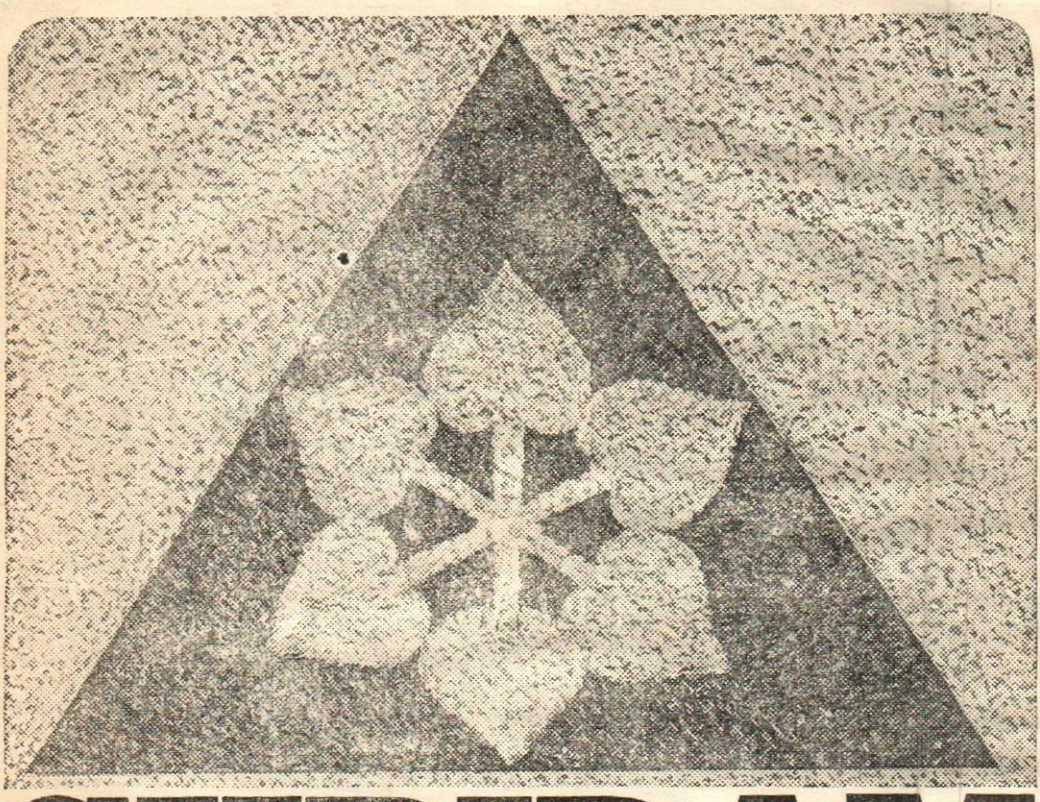

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