

## **Investigating the Dynamics of Employee Participation**

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### **Abstract**

There has been an increased interest in teams and empowerment of working groups in management literature yet some researchers note that little has been done to define and analyse the critical factors that explain the variations of their performance as well as the participation programme itself.

This paper presents an initial investigation of the interacting factors in participation, and its construct, motivation. The system archetypes in the participation system are first developed using recognised relationships in social science literature. Their corresponding balancing loops are later inferred largely from conflicting accounts and observations of the participation process. Some of the basic loops that are presented include the Organisational Improvement Loop, the Worker Environment Loop, the Tug-o'-War Control Loop and the Contribution Sharing Loop. A simulation model of the Organisational Improvement Loop is then presented with its results.

## Investigating the Dynamics of Employee Participation

### Introduction

There has been an increased interest in teams and empowerment of working groups in management literature (e.g., Hackman, 1986; Manz, 1992). Employee participation programmes that include quality circles and quality of work life programmes have been reported to have increased rapidly in the 1980s after a relatively low start in the 1970s (as cited in Verma and McKerzie, 1987). Pearson (1991) suggests that employee participation has been "encouraged by theoretical and empirical relationships between participation in decision making, role ambiguity and conflict, job satisfaction and better work outcomes". The focus on work teams is viewed as a crucial element in continuous quality improvement. As task forces, committees, working groups and quality circles, they are used to provide leadership, accomplish research, maximise creativity and operationalise structural flexibility (Peters and Waterman, 1982; Payne, 1988). Indeed, teams seem to satisfy everything at once: individual needs, organisational needs, and even society's needs for alleviating the malaise of alienation and other by-products of modern industrial society (Johnson and Johnson, 1987).

However, the optimism on the implementation of teams has also sparked some criticisms. For one, some evidence show that a number of human factors dilute the significance of participation in organisations often causing employees to place low value on participative opportunities (Neumann, 1989). Commenting on the role of employee participation in Total Quality Management implementation, Morrison and Rahim (1993) observe that although its importance has been recognised, the role of employees - their perception, skills and interest - had been neglected. Sinclair (1992) points out some weaknesses of the team paradigm:

1. Narrowly conceived definitions of work groups and group work are based on the assumption that mature teams are task-oriented, and have successfully minimised corruption by other group impulses.
2. It is an individual motivation formula and a 'unitary view' of organisations which assumes confluence and not conflict, between individual, group and organisational goals.
3. Simplistic views of superiority of participative leaders are held.
4. The views are also held that power, conflict and emotion are subversive forces which divert groups from work. (p. 612)

Waldman and Kenett (1990) note that despite the increased interest in the role of teams in organisations in the recent years, and the efforts to enhance their effectiveness, very little has been done to define and measure the critical factors that explain the variations in team performance. Thus, this paper presents some initial results on an ongoing research on the structure of participation variables in organisations.

This paper takes the perspective of motivation as a construct of participation. Jones (1955) suggests that motivation accounts for "how behavior gets started, is energized, is sustained, is directed, is stopped, and what kind of subjective reaction is present in the organism while all this is going on". Campbell and Pritchard (1976) further suggest that "motivation has to do with a set of independent/dependent variable relationships that explain the direction, amplitude and persistence of an individual's behavior ...". This study explores some of the variables that explain and influence the motivation of both management and employees to support an employee participation programme.

### Some Relevant Need Models

The basic building blocks of a generalised model of motivation include needs or expectations, behaviour, goals, and some form of feedback (Steers and Porter, 1979). A need arises that create internal disequilibrium, which in turn, causes an action or behaviour to alleviate the disturbance, hence a goal-orientation. The nature of the need, however, varies as it may be a need for increased compensation, for affiliation or recognition. A feedback indicates the effect of action on the initial disequilibrium. The Dunnette and Kirchner (1965) model (Figure 1) summarises these interactions.

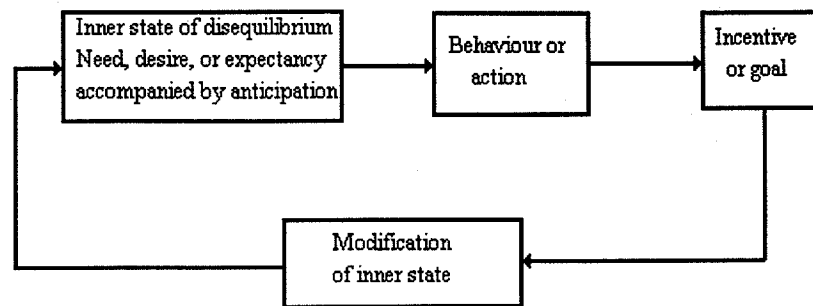


Figure 1. A generalised model of the basic motivation process. (After Dunnette & Kirchner, 1965)

Four complications from the model may result (Dunnette and Kirchner, 1965): (a) motives can only be inferred from behaviour; (b) dynamic nature of motives; (c) variations among individuals and motives; and, (d) impact of goal attainment on subsequent motives and behaviour. Steers and Porter (1979) note that considerable research has been done in an attempt to "more rigorously define the nature of the relationships between the major variables in this process...".

A model integrating factors that influence worker productivity has been suggested by Adam, Hershauer and Ruch (1981). This showed the relationships of organisational and extra-organisational factors. The model suggests that productivity is function of the capacity of the task, the individual effort of the worker to accomplish the task, and interference that cannot be controlled by the worker. A further feedback model that relates these factors as they influence the functional effort to perform is shown in Figure 2.

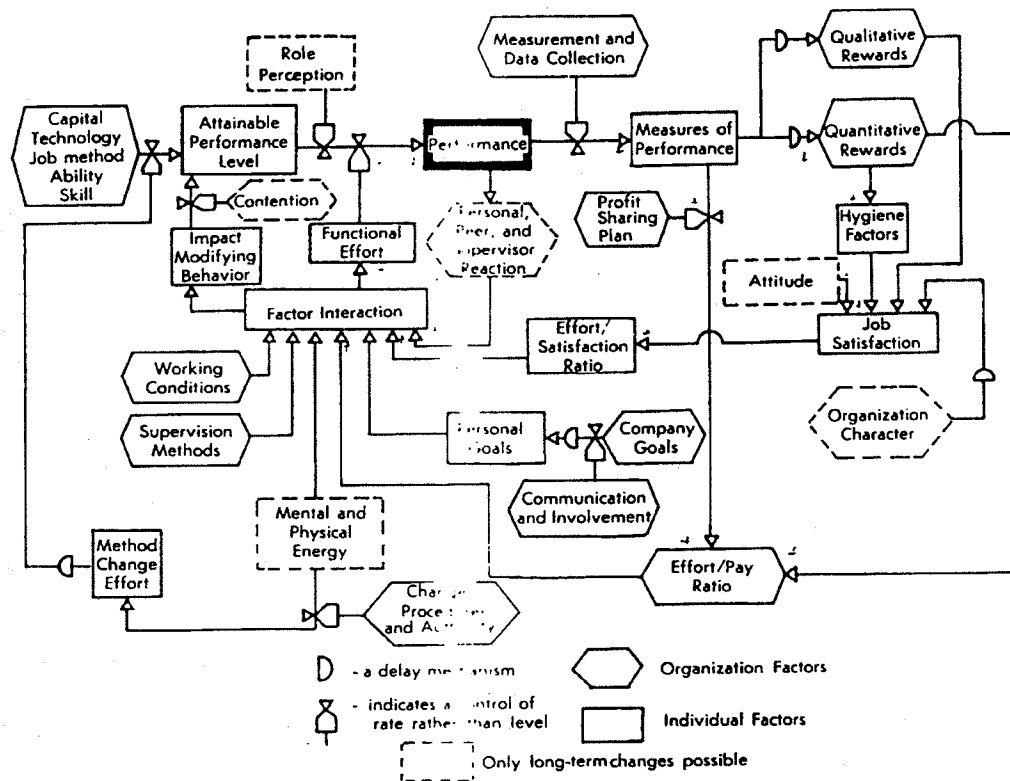


Figure 2. A servosystem model of worker productivity. (from Adam, et. al., 1981)

A more recent feedback model, utilises control theory to integrate different motivational theories. Klein's model (1989) suggests the unification of theories of goal setting, feedback, expectancy, and attribution theories and includes constructs such as social learning theory, need theories and information processing.

In both models, however, the resulting feedback loops indicate reinforcing behaviour. This behaviour is mainly generated by a positive effect from goal achievement, mainly defined in terms of the organisation's set productivity or output goals. Both models suggest that quantitative rewards are able to drive the entire system. The only difference may be inferred from the qualitative response from the subjective utility of goal attainment. These models imply that failure to increase productivity and motivation results only from the snow ball negative effect of these reinforcing loops. Thus, it may be noted that these models fail to account for some observed performances of other teams - that of a growth pattern followed by peaking and decline. The following section describes balancing loops that may account for the other observed behaviour patterns of motivation and team performance.

### Searching for Negative Feedback Loops

Most studies done in the social sciences indicate correlation of variables. Feedback and causal relationships are not often taken. This suggests the difficulty in finding negative loops that balance out the effects of the positive loops identified in the above models. In general, an approach taken by prescriptive, even in empirical, literature indicates that success is founded on certain critical variables such as management support, or goal understanding. This explanation presupposes that unattainment of the objective was due to the inadequate attention to these critical variables, an indication of the negative "snowball effect" of the positive loop.

This study, thus, approached the problem by evaluating each positive feedback loop and identifying negative loops that balances such reinforcing action. This approach utilises Senge's (1990) system archetypes and Wolstenholme and Corben's (1993) archetypal structures.

Wolstenholme and Corben (1993) note that archetypes can be seen as a "synthesis of much qualitative and quantitative modelling effort ... which can be used to generate understanding in new application systems and domains". They suggest four generic system archetypes that can assist users in transferring insights between system types. They further suggest that users begin with a simple combination of two loops representing action-outcome-response representation of the problem situation.

Following such approach, conflicting accounts of motivation and participation in literature were used to infer negative loops that balance out the recognised reinforcing loops. Sinclair's (1992) arguments against the team paradigm can prove to be a good starting point for identifying the balancing loops. She writes:

... the team ideology ... tyrannizes because, under the banner of benefits to all, teams are frequently used to camouflage coercion under the pretense of maintaining cohesion; conceal conflict under the guise of consensus; convert conformity into a semblance of creativity; give unilateral decisions a co-determinist seal of approval; delay action in the supposed interests of consultation; legitimize lack of leadership; and disguise expedient arguments and personal agendas. (p. 612)

This method was applied to the Organisational Improvement loop, which describes the interaction of the organisation's goal of improving the company and the implementing variables. Studies have indicated that failure of employee participation programmes, such as the quality circles, have been due to inadequate management support. Fabi (1992) notes that many authors in quality circle literature agree that commitment and support of management seems to condition the commitment and support of employees. A positive feedback loop may be constructed from this observation: management support influences employee perception of management, which in turn, contributes to employee motivation to participate. Increased motivation result in increased active participation, which requires more management support, in terms of money, time or other resources. Failure of the programme may only be explained from management's inadequate attention to support and commitment.

In situations where other patterns of motivation and participation behaviour are observed, the limit to growth archetype (Senge, 1990), or more generally, the Growth Intended --- Stagnation Achieved generic archetype (Wolstenholme and Corben, 1993) may prove to be useful to account for stagnation or decline. One negative loop, amongst others, may be due to constraints in resources allocated to the participation programme. These resources are usually set prior to the programme. With these constraints, management is not able to fully accommodate all the requirements of the

programme, thus contributing to demotivation, and later a changed perception of management commitment to the programme. This is shown in Figure 3.

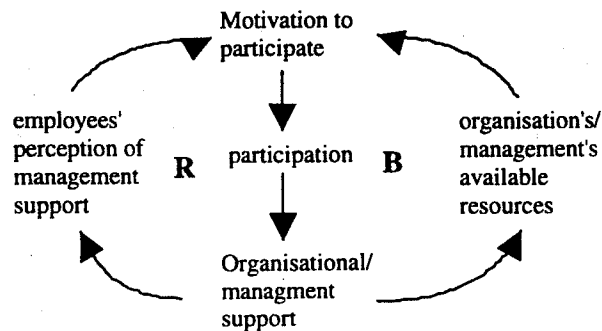


Figure 3. Organisational Improvement Loop

Another loop, the Working Environment Loop was developed from two possible outcomes of working in teams. Motivation has been closely identified with the employee's need for participation and need to socialise, following Maslow's hierarchy of needs. The participation process, thus, affords much opportunity to work together and cooperate to achieve certain group goals. This also allows for the development of better relationships among team members and later develop social attachments, which in turn, contributes to increased motivation to participate. This accounts for the reinforcing loops of Figure 4.

The balancing loop is due to a possible conflict in the working environment. Sinclair (1992) suggests that "individuals experience substantial and continuing internal tensions as group members, and that participation in groups is usually stressful...". Wells (1980) point out that some research indicate that individuals "often lose their problem solving facilities, become emotionally segregated and blame others for their failure". In other situations, anti-task behaviour has been observed that contributes to the propensity to withhold effort (Kidwell and Bennett, 1993). Thus, the dual effect of participation reflected in this archetype may help explain the ambiguous results of the participation.

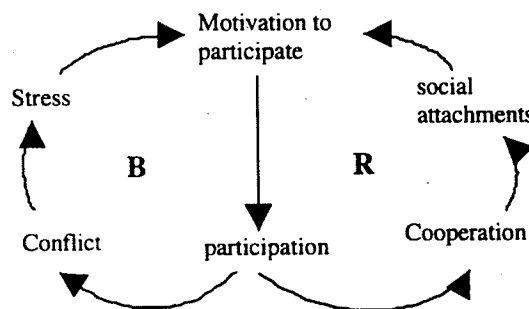


Figure 4. Working Environment Loop

Other loops have been constructed in similar manner: identifying a positive loop from previous models and studies, and finding an attached negative loop. In some cases, the loop shows an employee feedback loop and its twin loop indicates the management feedback loop. In other cases, the loops are made from dual effects of the variable. Figure 5 and 6 show the other loops that have been developed. Following Kim's (1992) approach, mini stories were developed from these generic archetypes to develop mini models that explain the indicated aspect of motivation and participation. Each mini model creates its own behaviour patterns and are intended to be integrated in a single model. The next section describes the initial model on organisational improvement.

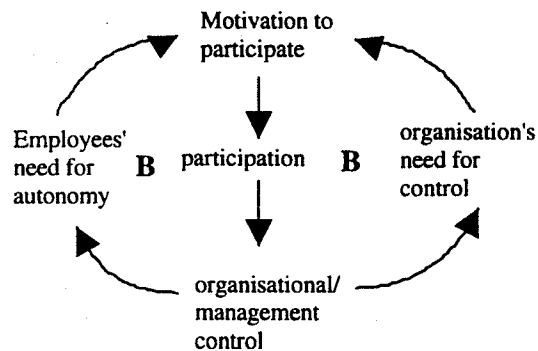


Figure 5. Tug-o'-War Control Loop

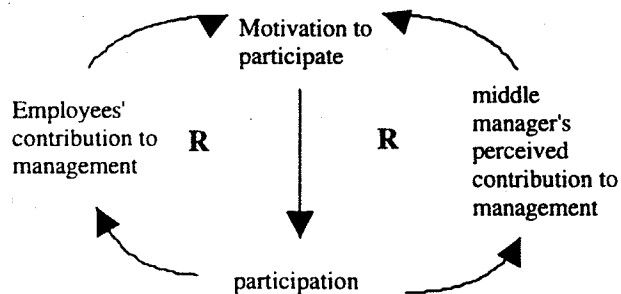


Figure 6. Contribution Sharing Loop

### The Initial Simulation Model

An initial Powersim model is presented here (Figure 7). It shows only the limits to growth of an employee participation programme. Figure 4 is expanded and introduces a project/suggestion variable to indicate the output of the participation programme and to relate participation with programme resource requirements. Participation in this model is a degree of the state variable that varies between 0 and 1.0, with 1.0 indicating 100 percent participation.

Participation encourages projects and suggestions. These accumulate as implementation is dragged down by budgeted resources. The project ratio indicates the performance of management in implementing these outputs. As more projects remain pending, dissatisfaction grows, thereby decreasing participation.

Motivation is driven by the probability of contact and a coefficient of imitation (as non participants follow the lead of the participants). The higher the participation the higher the probability of contact with non participants. On the other hand, the imitation factor is determined by a constant value for imitation influenced by the relevance of effort of participation. This relevance, in turn, is a perception variable measured as a ratio of the averaged implemented projects and a desired percentage. Figure 7 indicates these relationships.

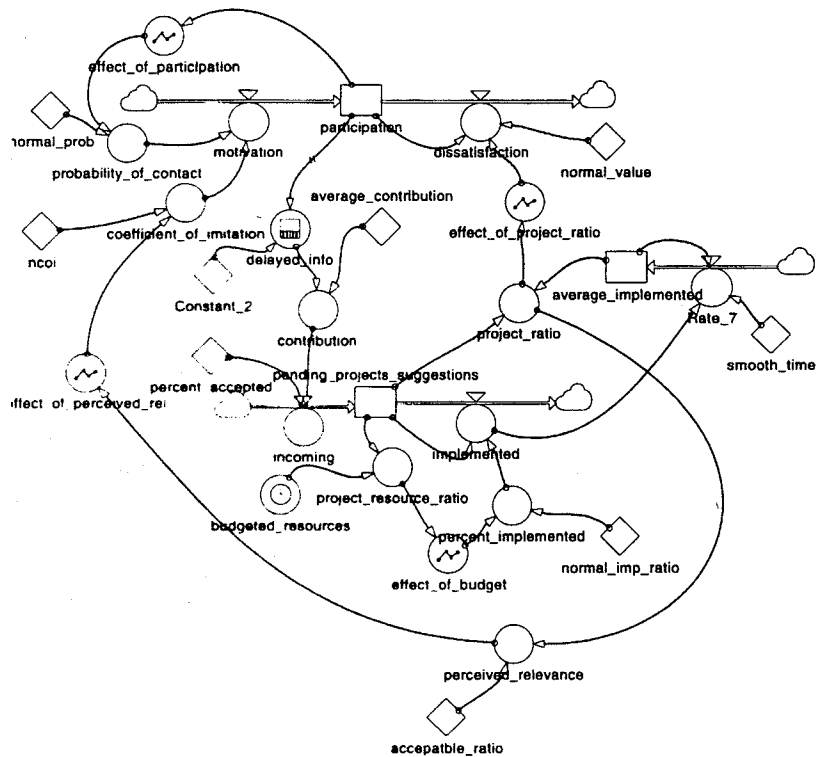


Figure 7 The flow diagram for the Organisational Improvement Loop.

The first simulation results, shown in Figure 8, indicate damped oscillations that tend to equilibrium in the long run. The results may be similar to those observed in some organisations: initial successes tend to slow down and later decline. The decline usually prompts management to abandon the program and not anticipating long term equilibrium.



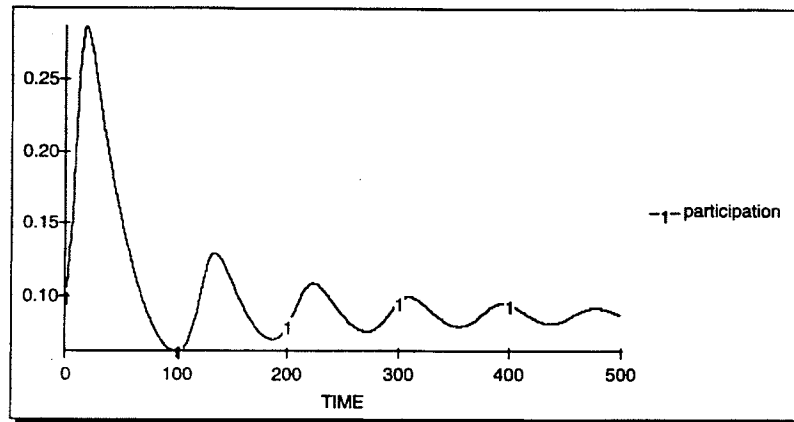


Figure 8. Initial simulation run of the Organisational Improvement Loop

Another possible contribution of this initial simulation is an alternative explanation to Ramsay's (1985) 'cycles of control' theory. Ramsay suggest that there is a historical character arising from working class resistance that creates periodic crises of management legitimacy. Participation programmes, thus, emerges as an attempt to regain legitimacy. Once these crisis situations have passed, management initiatives falls to disuse, as management loses interest in it. The results of the simulation, on the other hand, suggest that oscillations are more directly due to the resources constraints. Limited budgeted resources may be seen as management's lack of or inadequate interest in the programme or simply a problem of resource allocation to different organisational and management functions, not necessarily lack of interest. This simulation may imply that Ramsay's observed cycles of control may be reproduced by considering other factors other than management initiative.

This initial model shows similar modes of behaviour as budgeted resources is adjusted as indicated in Figure 9. Figure 10 shows undamped oscillations after adjusting the normal value of dissatisfaction rate, from 0.06 to 0.08.

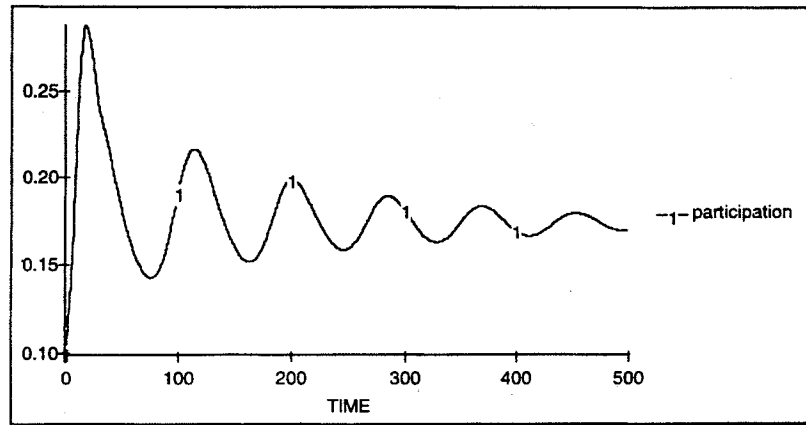


Figure 9. Time graph of participation with 100% step increase in budgeted resources

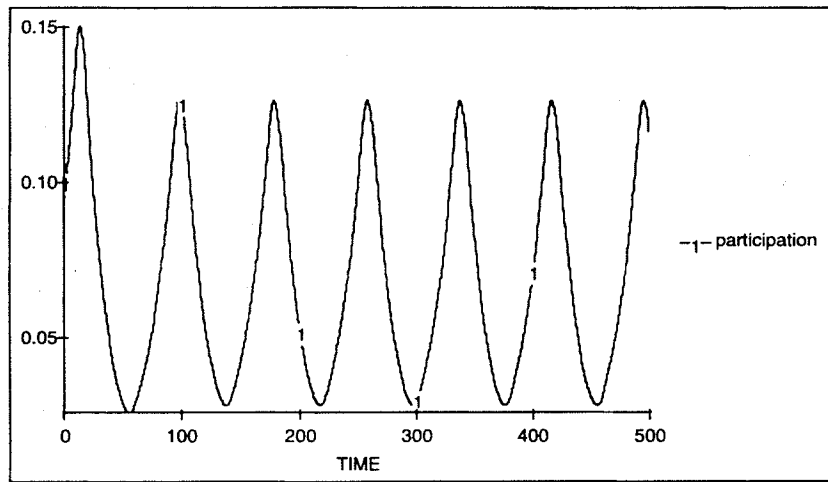


Figure 10. Time graph of participation with an increased value of normal dissatisfaction parameter

### Next Steps

The conclusions to be drawn from the initial simulation model are tentative as many aspects of the participation model and its archetypes have yet to be developed. A more comprehensive model will explore other system archetypes, using the approach described above, to account for the different aspects of participation. These system archetypes that have been identified will be integrated into one model.

This research hopes to account for successes in participation programmes while taking into account employee motivation as well as management's initiatives to sustain such a programme. This paper has presented the initial model describing the basic motivation to participate and the limiting factor. An expanded model should account for other motives and multiple causes of behaviour. Further, the research shall explore the essence of participation as a contribution to increased productivity and organisational effectiveness, and ultimately competitiveness.

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