

PARTICIPATORY MANAGEMENT IN CAPITALIST FIRMS: AN ANALYSIS OF "QUALITY CIRCLES"

*Robert DRAGO**

ABSTRACT

The paper develops a class conflict view of the dynamics of PM in capitalist firms and examines relevant evidence from a 1984 survey of 42 firms in the Milwaukee area with Quality Circles programmes. It is found that programme success in terms of cost-savings for the firm, increased job satisfaction for workers, worker commitment to the programme, and programme duration, all depend positively upon the degree of autonomy provided to workers. However, the degree of autonomy necessary to produce these results is minimal and does not generally involve workers in decisions traditionally reserved for high-level managers. Additionally, the active involvement of a trade union tends to favour worker interests in the programme, while job insecurity tends to stabilize the programmes over time. All of these results suggest that the weak position of workers relative to capitalist managers is both required for and tends to be maintained by PM, although there is a slight possibility that such activities can lead to increased workplace democracy.

I. INTRODUCTION

In the worker-owned or self-managed firm, participatory management (PM) is a right which is legally enforceable. This is not the case in the traditional capitalist firm, where PM may be introduced or removed

* University of Wisconsin — Milwaukee, U. S. A.

The author thanks the following people for their help in developing this research: Roberta Beauchamp for research assistance, Brenda Cullin, Gerry Duguay, Richard Edwards, Harvey Friedman, Linda Hawkins, Jerry Matzelle, Greg Nicklas, Paul Nystrom, John Simmons, Philip Thompson, James Wright, and members of the Greater Milwaukee Chapter of the International Association of Quality Circles. The author also thanks Margo Conk, David Fairris, David Fasenfest, Dennis Gensch, G. Richard Meadows, Gregory Wozniak, and those present at a University of Tulsa seminar for helpful suggestions regarding the paper. The research was funded by a grant from the Graduate School of the University of Wisconsin-Milwaukee.

by managers with virtually no legal entanglements. Thus, we would expect the dynamics of PM — how it works, how long it lasts, and the degree of actual participation — to be very different in capitalist firms which attempt such activities.

Economists concerned with workplace democracy have typically focused on models of worker ownership or self-management (e. g., Vanek 1970). Yet it seems important to understand the dynamics of PM in capitalist firms for several reasons. First, for many workers in the U. S. and elsewhere, these programmes represent their only experience outside of union representation with anything remotely resembling or labelled as participatory management. It is estimated that at least one million workers in the U. S. are now involved with Quality Circles programmes, a form of PM (Parker 1985, p. 8). If PM is ever to become an important political issue in the U. S., as it is in Yugoslavia, Sweden, the Federal Republic of Germany and elsewhere, current experiences are likely to play an important role in determining how workers perceive PM.

Second, and related to the first point, the few researchers concerned with democratizing the workplace who have focused on PM in capitalist firms have reached very contradictory conclusions. In an early debate of the issue, for example, Andre Gorz saw PM as presenting a possible opening for genuine workers' management if workers could turn it into a "non-reformist reform" (1967), while Ernest Mandel denigrated such activities as, "the daily practice of class collaboration." (1973, p. 354) That is, PM may either co-opt or strengthen worker desires for democratic decision-making. Thus, in economies currently lacking legally mandated PM, the political viability of legalised PM, and indeed the desirability of current forms of PM both depend intimately on which view we take.

To shed light on these issues, the following develops a class conflict view of the dynamics of PM in capitalist firms and examines relevant evidence from a 1984 survey of 42 firms in the Milwaukee area with Quality Circles programmes. It is found that programme success in terms of cost-savings for the firm, increased job satisfaction for workers, worker commitment to the programme, and programme duration, all depend positively upon the degree of autonomy provided to workers. However, the degree of autonomy necessary to produce these results is minimal and does not generally impinge upon decisions traditionally reserved for high-level managers. Additionally, the active involvement of a trade union tends to favour worker interests in the programme, while job insecurity tends to stabilize the programmes over time. These results suggest that the weak position of workers relative to capitalist managers is both required for and tends to be maintained by PM, though there is a slight possibility that PM can lead to increased workplace democracy. Overall, the results suggest a pessimistic assessment of the potential for PM in capitalist firms to produce movement towards more substantive forms of workplace democracy.

This paper is arranged as follows. Section II outlines a model of PM under capitalism and Section III describes the survey used here. The fourth section examines the degree of workers' control and pro-

profitability resulting from QCs, while the causes of success for QCs are examined in the fifth section. We conclude with a summary and suggestions for how this work might be related to the extension of workplace democracy.

II. MODELLING PM IN CAPITALIST SETTINGS

In general, proponents of participatory management, whether in the form of autonomous work teams, Quality Circles, worker ownership, or a national system of self-management, argue that substantive PM leads to both a more humanized and productive workplace (Jones & Svejnar 1982; Stephen 1982; Simmons & Mares 1983). Though the precise logic used may differ slightly, it is typically argued that oppressive work situations cause workers to resent their work and the firm, leading to low levels of work effort and costly conflict between workers and managers. If workers are freed from these restraints, they will take pride in their work, and will co-operate with other workers and managers. However, this simple logic is surely altered by the context for participation, and particularly the ownership or control structure of the firm.

The primary difference between PM in the capitalist firm as opposed to self-management lies in the party having final, legal control over decision-making. In the capitalist firm, capitalists have the final word, while in self-managed firms, power ultimately resides with workers. In economic models, this difference is viewed in terms of an objective function: capitalist firms maximize profits while self-managed firms maximize worker utility. If we apply this logic to PM in the capitalist firm, two arguments immediately follow.

First, capitalist firms will only offer and sustain PM to the extent that it enhances profitability. PM will not be introduced or maintained simply because it is desirable or increases job satisfaction. Rather, it is conditional on the profitability which results. As a friend who works with Quality Circles described the sales pitch to managers, consultants basically say that, "We are just . . . going to organize your people on the floor into groups. They will meet once a week. They will take these training materials here . . . and this slide show, and they will train, and then they will start producing good ideas for you and you will save money." Potential profits are the obvious, if not only, selling point here.

Second, PM in the capitalist firm will not involve workers in decisions which might result in the alteration of the firm's objective function. There is not only a substantive difference between workers who are allowed to produce "good ideas" for management and those who participate in investment or employment decisions, but that difference is endemic to capitalist participation. In the terms of management consultants on PM, there are issues where workers and managers have common interests ("win-win" issues) and those where interests differ ("win-lose" issues). If capitalist firms in fact seek to maximize profits, obviously managers cannot allow workers to participate in decisions where interests might clash, such as pay or plant location.

Otherwise, the firm might find itself maximizing something besides profits.

Radical analysts have concluded that PM in the capitalist firm is inherently contradictory. Ultimate control of the firm by capitalists conflicts with the idea of workers' control because profitability is not identical to the interests of workers. Therefore, by offering PM, capitalist firms may indirectly produce a challenge to capitalist goals and control. Workers may gain a taste for power and recognize the unnecessary nature of capitalist control. If workers then attempt to expand the realm of participation to include areas where interests are not common, or attempt to turn productivity gains from PM to the advantage of workers through reducing work effort or increasing pay, this will cause capitalists to remove PM (Zimbalist 1976; Mangin 1977; Edwards 1979).

A primary difficulty with these analyses is that they do not explain the implementation of PM in many U. S. firms during the last decade (Heckscher 1981; Drago 1985). However, it is consistent with these arguments to suggest that the dynamics of PM may be influenced by the economic and political strength of workers in the firm. A thief holding a gun to someone's head is in a better position to offer a choice of "your money or your life" than is the average person: the outcome in terms of the thief's goals is more assured when the gun is present. Similarly, if workers are threatened with job insecurity, have a weak union or none at all, are less well-educated, or have few skills, we might expect PM to have a more salutary effect on profits than would otherwise be the case. We may then explain the recent growth of PM by the relative weakness of workers in the current U. S. economy, as signified, for example, by a secular decline in real hourly wages and increase in unemployment (Bowles, Gordon & Weisskopf 1983, pp. 22,25).

To summarize, if the logic thus far is correct, we would expect that PM in capitalist firms will involve a low degree of workers' control relative to worker-owned or self-managed firms. Firms implement PM for purposes of reducing costs and hence improving profits. The success of PM will, as in non-capitalist firms, depend immediately upon the degree of control offered to workers, but this success will be influenced by the weakness or strength of workers relative to the firm. If workers are in a strong position, PM will tend to favour worker interests and may be abandoned by the firm; conversely, if workers are in a weak position, PM will tend to favour profits and thus sustain managerial commitment to PM.

III. THE QC SURVEY

Quality Circles are a Japanese form of participatory management where a workgroup meets once per week to discuss, analyse, and solve problems common to the group. QCs are typically led by the group's supervisor and analyses often result in presentations of problems and proposed solutions to higher level managers for approval.

The QC survey analysed below was administered during 1984 to establishments in the Milwaukee area with active Quality Circles programmes. To maintain statistical independence, only one establishment per firm was surveyed. Four public agencies were included in both the survey and the results below using the logic that the effects of PM under capitalism should carry over from the private to the public sector. A mailing list from the local chapter of the International Association of Quality Circles and word-of-mouth efforts were used to identify organizations with active QCs. These efforts uncovered 58 organizations in the greater Milwaukee area with QCs, of which 42 agreed to take the survey (74.6% response rate). Because less than 10% of respondents were in the public sector, the word "firm" is generally used to refer to the unit of analysis. In each firm, the QC survey was administered to a middle-level manager, a (usually full-time) QC facilitator who organizes and trains QC members, a supervisor and hourly employee involved in QCs, a shop steward (where relevant), and an employee who had dropped from the programme. Respondents were chosen by the QC facilitator under instructions to limit the sample to people familiar with the QC programme.¹

IV. WORKERS' CONTROL AND PROFITABILITY

If the analysis presented earlier is correct, then we would expect to find minimal worker gains from QCs in terms of control or influence over the firm and some clear gains to firms which favour profitability.

To examine workers' control, control was separated into three aspects: direction of the work, monitoring and work incentives, and information. Edwards (1979) has argued that effective capitalist control of the labour process must confront the questions of direction — how the work is performed, when, and at what pace — as well as the incentives for work (or sanctions) and monitoring of work (or evaluation) so that incentives are effectively tied to worker behaviour. We invert this argument and suggest that worker control over the labour process will similarly include control over direction as well as incentive and monitoring structures. Additionally, consistent with many economic analyses, we suggest that information is power (Simon 1984; Arrow 1974), so that increased worker knowledge of the functioning of the firm and labour process will enhance workers' control generally.

Do workers gain some degree of control through QCs? To answer this question, consider responses to various control questions by workers involved in QCs, as shown in Table 1. Regarding direction of the work, one-half of the workers believe they have some say over how the work is performed and two-thirds control their work pace. Other than these responses, only a small minority of workers have some say over matters such as task assignments, whom employees work with, and new technology. Regarding incentives, a meagre 11.9% have some say

¹ The rationale for using programme age to proxy duration is that durable programmes will survive longer than others, so that a greater number of less durable programmes will be found among newer efforts.

regarding pay and when they are at work, while even fewer workers engage in peer evaluation or help determine who is chosen to supervise them. No workers in the sample had input into hiring or firing decisions. Finally, the majority of workers feel they have adequate information relating to how their jobs should be performed, management policies, and how their job fits into the production process. However, only a minority of workers feel informed about the company's financial well-being, future contracts, or the investment plans of the firm.

It is important to note that positive responses here may or may not reflect PM activities *per se*, since some workers may, for example, hold control over work pace by virtue of their job or occupation (as in typing or craft work). Even if, however, we assume that whatever control workers have is entirely due to PM the amount of workers' control found here is minimal. Workers may be provided with some control over how their work is performed, and given information directly relating to their jobs, but influence over how workers are rewarded, employment decisions, who does what task and with whom, and the provision of information relating to high-level managerial decision-making are all relatively rare.

Table 1
Involved Worker Perceptions of Control under QCs

Control Questions	Positive Responses
WORKER AUTONOMY	
[Do most of the people you work with:]	
Make their own task assignments	23.8%
Set the pace of their on work	66.7%
Decide who they work with (within some range)	19.0%
Decide how their work will be performed	50.0%
Have some say regarding decisions about new technology	28.6%
INCENTIVES	
[Do most of the people you work with:]	
Formally evaluate each other's performance	9.5%
Have some direct say about pay scales/raises	11.9%
Have some say about hiring decisions	0.0%
Have some say about firing decisions	0.0%
Decide when they are at work (within some range)	11.9%
Help decide who supervises	2.4%
INFORMATION	
[Do you and the people you work with feel that you have adequate information relating to:]	
How to perform your jobs	76.2%
Management policies	54.8%
How well the firm is doing financially	40.5%
How your jobs fit into the entire production proces	64.3%
Future contracts	16.7%
Investment plans of the firm	

Note: n = 42

Although workers may not gain a great deal of control through QCs, managers may still experience reduced costs from the programmes. To examine this issue, questions were asked to a variety of actors in each firm regarding costs savings, as shown in Table 2. In the vast majority of cases, managers and involved employees felt that QCs resulted in a more productive atmosphere, though employees who had dropped from the QCs programme felt rather differently. While only a minority of managers reported gains in terms of reduced worker absenteeism (46.2%) and quits (15.8%), the vast majority of both managers and supervisors believed that QCs improve both product quality and productivity. Further, most supervisors perceived an improvement in scrap levels (where relevant), fewer hold-ups in production, and increased worker motivation from QCs, though only 38.9% felt that such improvements had reduced the need to watch or monitor workers. Finally, 86.7% of programme facilitators argued that the programmes either reduce costs or improve revenues.

Though recent work suggests that the cost savings resulting from PM in capitalist firms are frequently over-rated (Levitan & Werneke 1984), the overwhelmingly positive responses from a variety of actors in each firm suggest that QCs are indeed producing results which are consonant with profit-maximization.

V. CAUSES OF SUCCESS IN QCs

The evidence presented in the last section suggests that QCs act to improve profitability with minimal increases in workers' control. It would be useful, however, to consider the precise relationships between workers' control and programme success, and particularly the role of

Table 2
Cost-Savings from QCs

Questions (respondent*)	Positive Responses
Circles create a more productive atmosphere	
(M)	87.5%
(I)	76.2%
(O)	21.2%
Circles reduce turnover or quits (M)	15.8%
Circles reduce absenteeism (M)	46.2%
Circle improve product quality (M)	63.2%
Circles improve product quality (S)	94.9%
Circle improve productivity (M)	61.5%
Circle improve productivity (S)	90.0%
Circles reduce costs or increase revenues (F)	86.7%
Circles reduce scrap levels (S)	87.1%
Circles reduce hold-ups production (S)	77.8%
Circles reduce the necessity for watching workers (S)	38.9%
Circles increase worker motivation (S)	86.5%

* — Respondents are denoted by (M) for manager, (I) for employees involved in QCs, (O) for employees who have dropped from QCs, (F) for programme facilitator, and (S) for supervisors.

Note: n is less than or equal to 42 (some respondents answered 'too early to tell').

worker weakness or strength in relation to managers, and its effect on programme outcomes. Regression analysis is used below to consider these relationships.

Various questions were available to measure cause and effect variables concerning QCs. Though some measures are cardinal and involve only one variable (e. g., the percentage of workers covered by a union), most involved the aggregation of various ordinal responses (e. g., regarding job satisfaction). The method used to aggregate these responses was to perform a test of reliability on additive indices where individual variables were weighted such that the greatest positive responses were equal, as were the most negative responses. Variables not exhibiting a simple correlation coefficient (r^2) of at least .30 with the index (where the specific variable was omitted from the index), were dropped as providing more noise than relevant information. Cronbach's alpha (α), a measure of internal index validity, is reported for each index (α has an upper bound of one for perfect validity, though there is no universally accepted value for a which is considered significant). Specific questions included in each index are reported in the appendix.

The success of QCs may be judged using different criteria. For the firm, cost-savings (COSTSAVE, $\alpha = .709$), an index constructed from variables found in Table 2, will most directly measure success. For employees involved in QCs, gains in job satisfaction (JOBSATIN, $\alpha = .618$), as suggested by worker perceptions of pay, benefits, and whether they would enter the same line of work again, arguably provide a meaningful measure of programme gains.² We consider these measures below, as well as three others. First, the age of the programme will be used as a measure of programme duration (DURATION), since a short-lived programme would not be called successful by most researchers.³ Similarly, the percentage of Quality Circles which have not folded will provide a measure of worker commitment and satisfaction with QCs (COMMIT). However, we control COMMIT for programme age (DURATION) under the assumption that some rate of failure is normal or endogenous to the programmes (or that Hawthorne effects are present). Both success criteria, DURATION and COMMIT, are likely to capture joint gains for workers and manager from QCs given the voluntary nature of such programmes: both managers and workers are well-positioned to weaken (COMMIT) or abandon (DURATION) QCs. Finally, we construct a measure of job satisfaction for employees who have dropped out of QCs (JOBSATOUT, $\alpha = .629$), similar to JOBSATIN, to consider the effects of the programme on those who are not involved. This final measure is of obvious importance given that many, and often most workers in a firm will not belong to QCs at any given moment in time.⁴

² We assume in the regression analysis below that facilitator bias in choice of surveyees as well as response biases in general affected responses in a consistent fashion.

³ These three questions were modified from the 1977 Quality of Employment Survey. See Quinn and Staines (1979, pp. 228-231).

⁴ For example, it is estimated that only 12.5% of Japanese workers actively participate in QCs. See Ellenberger (1982, p. 8).

For measures of the degree of participation, indices were constructed using the typology and variables found in Table 1. Thus, an index of worker AUTONOMY ($\alpha = .692$) and INFORMATION flows to workers ($\alpha = .623$) were created from the relevant variables. For worker control over incentives, only one variable, concerning worker say in supervision, met the inclusion criterion ($r^2 = .50$ with the sum of the other variables), and so it was used as a marker variable for INCENTIVES.

For exogenous effects on programme outcomes, we consider various factors which should influence the strength of workers relative to managers, including workforce education levels, the training of workers in the techniques of QCs, job insecurity, managerial difficulties in ascertaining worker effort levels, the percentage of workers unionized, and the involvement of the union with QCs. We would expect that if workers are not highly educated, they will have less bargaining power. If they are poorly trained in QC techniques, then they will be less able to direct QCs towards their own ends. If workers are threatened with job loss, then by the reserve army of labour argument, they will be less likely to become militant. If workers have few skills, work independently of each other, or work with inexpensive equipment, then it will be either inexpensive for managers to monitor worker output or (if equipment is inexpensive) the costs of poor monitoring will be minimal; in turn, if monitoring is simple or the costs of poor monitoring are low, this will reduce worker bargaining power (Ouchi 1980). Similarly, if workers are non-union or have a union which ignores QCs, workers will have either less bargaining strength and less unity around QCs to forward worker goals.

Measures of exogenous factors were constructed as follows. Education (EDUCATION) was constructed by ordinally ranking the education requirements which most workers in the firm must meet, while the amount of training in QCs (QC TRAIN) was constructed additively from questions concerning how many groups (workers, managers, supervisors) received training in QCs before and after the programme started. A measure of job insecurity (INSECURE, $\alpha = .716$) was created using the agreement criterion relied upon for COSTSAVE, JOBSATIS, etc., and included three questions concerning lay-offs during the last three years. Four questions to involved employees regarding skill levels and the interdependence of jobs, and a question to managers regarding the value of equipment were used to proxy the difficulty and costs of monitoring workers. This resulted in a marker variable regarding cohort skills (SKILLS) exhibiting agreement with an additive index of the other questions ($r^2 = .56$). The percentage of unionized employees (UNN LEVEL) was used as a measure of unionization, while four questions regarding union activities in the programme (e. g., whether the union was consulted prior to starting QCs) were used to create an index of union involvement (UNN ACTIVE, $\alpha = .784$).

Table 3 shows the results from regressing our five measures of programme success on the variables which may influence programme outcomes. Since most variables have no numerical interpretation, standardized beta coefficients are shown except where we controlled COMMIT for DURATION (both of which are cardinal). Additionally, though

two-tailed tests of significance were applied to most t-statistics, in certain cases we have predicted the direction of association, so apply one-tailed tests. Specifically, we predict that workers' control (AUTONOMY, SPRVSN, and INFORMATION) will positively affect programme outcomes. Since COSTSAVE is a measure of success for the firm, we would predict that weaker workers will correlate with greater cost-savings (all coefficients negative except INSECURE which should be positive). In parallel fashion, since JOBSATIN measures worker gains, we would predict that stronger workers will gain more from QCs (all coefficients positive except INSECURE which should be negative).

To interpret the results, consider coefficients for which statistics are significant at the 5% level. In this case, no variable predicts COSTSAVE, while JOBSATIN is positively associated with AUTONOMY, INFORMATION, and EDUCATION, with UNN ACTIVE just missing a significant, positive relationship. JOBSATOUT only one significant relationship, a negative correlation with SKILLS, while DURATION has a

Table 3

*Determinants of QC Outcomes [1]
(Not corrected for multicollinearity)*

AUTONOMY	.5057 (1.065)	.4337 (2.154*)	.3158 (1.456)	.0622 (.309)	.6893 (3.172**)
INCENTIVES	[2]	.0469 .250	-.2070 (1.023)	.6070 (3.236**)	.1374 (.559)
INFORMATION	-.0611 (.170)	.4059 (2.432*)	-.1433 (.797)	-.0833 (.500)	.0238 (.132)
EDUCATION	-.3465 (1.042)	.3383 (2.014*)	.1569 (.867)	-.1465 (.874)	.1739 (.945)
QC TRAIN	.1132 (.351)	-.2144 (1.294)	-.2065 (1.157)	-.1133 (.685)	-.4407 (.041)
INSECURE	-.1232 (.273)	.0652 (.322)	-.3087 (1.415)	.4593 (2.272*)	-.1111 (.458)
SKILLS	-.1095 (.160)	-.2214 (1.030)	-.5899 (2.547*)	.1162 (.542)	-.4828 (2.071*)
UNN LEVEL	-.1733 (.382)	-.1393 (.659)	.1735 (.762)	.0087 (.041)	.2355 (1.034)
UNN ACTIVE	-.0072 (.002)	.3271 (1.631)	-.1786 (.827)	-.2832 (1.415)	.2321 (1.029)
DURATION [3]					-6.4181 (1.916*)

[1] Ordinary Least Squares regressions with listwise deletion of missing data; standardized beta coefficients reported unless otherwise noted.

[2] Coefficient not calculated due to missing data.

[3] Variable entered stepwise before other variables, actual regression coefficient reported.

* — significant at 5% level.

** — significant at 1% level.

positive association with SPRVSN and INSECURE. COMMIT is indeed subject to some exogenous decrease over time, as signified by the significant negative association with DURATION (the cardinal numbers allow the interpretation that an average of 6.4% of Circles in a firm will fail each year). COMMIT is also positively associated with AUTONOMY and negatively related to SKILLS.

Thus, we could argue that workers' control has a direct positive impact on the job satisfaction of involved employees and their commitment to QCs, and some positive influence on how long the programme will last. Worker who are in a strong position in terms of education also gain greater job satisfaction, but programmes are more likely to last where workers fear job loss. The negative affect of skills on worker commitment suggests that highly skilled workers may not need QCs to effect changes in the labour process or, alternatively, that managers are less supportive of QCs where workers are highly skilled and hold greater bargaining power. QCs apparently have little affect on the job satisfaction of employees not involved in the programme.

A potential problem in the above regressions may lie in a specification error. The regressions assume that the causal variables are not interrelated. However, examination of the correlation matrix revealed several significant relationships between independent variables at the 5% significance level, or multicollinearity. Specifically, SPRVSN was positively related to both AUTONOMY and SKILLS, and negatively related to INSECURE. The direction of these relationships suggests that workers who are in a stronger bargaining position (high SKILLS and low INSECURE) are also those provided with the greatest degree of workers' control (AUTONOMY and SPRVSN) or that a strong workforce can push managers to provide a greater degree of workers' control. Similarly, SKILLS was positively related to SPRVSN, INFORMATION, and UNN LEVEL, again suggesting a positive link between worker strength and workers' control.

There is no simple solution to multicollinearity. However, if we perform the regressions absent SPRVSN and SKILLS, the remaining exogenous variables will exhibit statistical independence. The resulting regressions are shown in Table 4. AUTONOMY now has the predicted positive impact upon COSTSAVE, JOBSATIN, DURATION, as well as COMMIT, supporting the basic logic that participatory management can lead to positive results for workers and the firm if workers are provided with a degree of control over their work. Further, INFORMATION and EDUCATION are positively associated with JOBSATIN. Again, stronger workers seem to experience greater gains from QCs. The relationship which comes closest to being significant (but which is not) is a negative association between UNN ACTIVE and JOBSATOUT, which might suggest that employees who have dropped from QCs resent union involvement with QCs.

Table 4
Determinants of QC Outcomes [1] (Corrected for multicollinearity)

Independent Variables	Dependent Variables, Coefficients (t-statistics)—				
	COSTSAVE	JOBSATIN	JOBSATOUT	DURATION	COMMIT
AUTONOMY	.4952 (1.795*)	.3592 (2.176*)	-.0196 (.096)	.3617 (1.819*)	.5401 (2.652**)
INFORMATION	-.0954 (.345)	.3776 (2.341*)	-.2269 (1.135)	-.0532 (.274)	-.0370 (.198)
EDUCATION	-.3759 (1.410)	.3197 (1.976*)	.0643 (.321)	-.0548 (.281)	.1381 (.737)
QC TRAIN	.1434 (.570)	-.1858 (1.183)	-.1925 (.990)	-.0100 (.053)	.0616 (.339)
INSECURE	-.0653 (.251)	.1465 (.879)	.0328 (.159)	.1792 (.894)	.0524 (.268)
UNN LEVEL	-.2257 (.745)	-.2255 (1.191)	-.0044 (.019)	-.0444 (.195)	.0422 (.193)
UNN ACTIVE	-.0623 (.218)	.2817 (1.490)	-.3523 (1.505)	-.1592 (.700)	.1392 (.630)
DURATION [2]					-6.3697 (2.231*)

[1] Ordinary Least Squares regressions with listwise deletion of missing data; standardized beta coefficients reported unless otherwise noted.

[2] Variable entered stepwise before other variables, actual regression coefficient reported.

* — significant at 5% level.

** — significant at 1% level.

VI. CONCLUSIONS

Overall, the class conflict view of participatory management receives support from the survey results presented here. As predicted by virtually all research, some increase in workers' control indeed seems to produce positive results for both the firm and workers. However, because the interests and power of workers and firms differ, we find that only a small amount of workers' control is typically provided, while firms reap substantial rewards in terms of factors affecting profitability. The net gains from PM seem clearly weighted toward the interests of the firm.

Although firms may gain the most from PM, worker strength can tip the balance, if slightly, in favour of worker interests. The association between workers' control and various indicators of worker strength suggests this argument, as does the positive association between education levels and the job satisfaction of involved employees. However, if workers become too strong, the firm may abandon PM, as suggested by the positive correlation between job insecurity and programme duration.

There are also costs to worker involvement in PM. As the (weak) negative relationship between union involvement in QCs and the job satisfaction of QC drop-outs suggests, unions who take an active role in QCs may alienate the usually substantial portion of their membership who do not participate in QCs. Note further an opposing (though again weak) positive relationship between union activism in QCs and involved employee job satisfaction. Thus, it may be that while a union can strengthen its ties to participants through active involvement in QCs, such ties come at the expense of alienating non-participants.⁵

In sum, for workers who are strong relative to employers, participatory management may provide a small opening for increased workplace democracy. However, in general, participatory management seems to be facilitating profitability over substantive workers' control. Therefore, the evidence arguably provides support for both Gorz's argument that PM can lead to workers' control, as well as Mandel's argument that PM favour the interests of capital. In this observer's opinion, the weight of the evidence is more supportive of Mandel's negative assessment: in the typical case, PM in capitalist firms is only leading workers to extremely limited forms of workplace democracy. For proponents of workers' control, this analysis may suggest that energies which are currently directed at the PM initiatives of capitalist firms, would be spent in broadening trade union organization, increasing levels of worker ownership, or direct political work.

Received: 16. 06. 1986

Revised: 8. 09. 1986

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⁵ Mike Parker (1985) makes this point in his insightful analysis of unions and PM.

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APPENDIX

Relevant Survey Questions and Variables

The actor to whom the questions were directed is denoted by (M) for manager, (F) for QC facilitator, (S) for supervisor, (I) for involved employees, (O) for employees who dropped from QCs, and (U) for union shop stewards. The name of the constructed variable heads each set of questions and questions meeting the inclusion criteria for index construction are marked with a "*".

DURATION (F)

When was your first Circle started? (1) 1978 or earlier (2) 1979 (3) 1980 (4) 1981 (5) 1982 (6) 1983 (7) 1984

COMMIT (F)

Of all Circles started, what approximate % are still active as of this date?

COSTSAVE

(M*, I*, O*) Do you feel that Circles help create a more productive atmosphere? (1) yes (2) no difference (3) no, less productive

(M) [The following refer only to the 1ST — 3RD YEARS AFTER beginning Circles]

* Labour turnover or quits at your location: (1) improved (2) stayed about the same (3) increased

* Absenteeism at your location: (1) improved (2) stayed about the same (3) increased.

Product quality at your location: (1) improved (2) stayed about the same (3) decreased.

* Productivity at your location: (1) improved (2) stayed about the same (3) decreased.

(F) * Has your Circles programme succeeded in reducing costs or increasing revenues? (1) yes (2) no (3) too early to tell

(S) [Do Circles help to solve the following types of problems?]

Improve productivity: (1) yes (2) no

Improve quality: (1) yes (2) no

Reduce scrap levels: (1) yes (2) no

* Reduce hold-ups in production: (1) yes (2) no

Workers require less watching: (1) yes (2) no

* Workers seem more motivated: (1) yes (2) no

JOBSATIN and JOBSATOUT (I*, O*)

Have you usually received adequate raises at your firm? (1) yes (2) no

Do you have a good benefits package where you work? (1) (2) no

Would you go into the same line of work if you have a chance to start all over again? (1) yes (2) no

AUTONOMY (I) (all questions are yes/no)

Questions used for AUTONOMY are all but one of the five in Table 1 (excluding the question on who people work with.)

SPRVSN (I)

The question used as a marker variable for SPRVSN is the last SPRVSN question in Table 1.

INFORMATION (I)

Questions used for INFORMATION index are all but the first (how to perform your job) and last (investment plans) INFORMATION questions from Table 1.

INSECURE:

The first question was asked of managers twice with the two headings: [The following refer only to the 2 YEARS PRIOR to beginning Circles.]

[The following refer only to the 1ST — 3RD YEARS AFTER beginning Circles.]

(M**) At your location, some workers experienced: (1) permanent lay-offs (2) temporary lay-offs (3) no lay-offs

(I*, O*) Has your firm had lay-offs (permanent or temporary) during the last three years? (1), substantially (2) yes, some (3) no

UNN LEVEL (F)

What % of your entire workforce is unionized?

UNN ACTIVE (U)

Did your union local approve of beginning Quality Circles? (1) yes (2) no

* Was your union consulted before beginning Circles? (1) yes (2) no

* Does an agreement exist that Circles will not interfere with provisions of your collective bargaining agreement? (1) yes (2) no

SKILLS

(I*) Are the people you work with highly skilled? (1) yes (2) somewhat (3) no

(I) How long did it take to fully learn your present job after you were hired? (1) 1—3 months (2) 4—6 months (3) 7—12 months (4) 13 months — 2 years (5) over 2 years

(I) Does your work require close co-ordination with the work of others? (1) yes (2) sometimes (3) no

(I) Does the work of others seriously affect the quality of your own work? (1) yes (2) somewhat (3) no

(M) Does your average non-managerial (or non-exempt) employee work with at least \$10,000 worth of equipment per person? (1) yes (2) about half do (3) no

QC TRAIN (F*) (Index constructed by adding positive responses)

The following were asked twice with the alternative headings: [Who of the following was trained for Circles BEFORE you started the programme?] [Who of the following received Circles training DURING your Circles programme in addition to that provided within the Circles themselves?]

Managers: (1) yes (2) no

Supervisors: (1) yes (2) no

Hourly employees: (1) yes (2) no

EDUCATION (M*) (Index constructed by ranking answers to each question of (1) and (2) identically, then ranking positive responses to the first question above positive responses to the second above positive responses to the third above all negative responses)

Does your typically non-managerial (or non-exempt) employee hold a college degree (1) yes (2) about half no (3) no

Has your typical non-managerial (or non-exempt) employee attended technical or vocation school for at least one year? (1) yes (2) about half have (3) no

Does your typical non-managerial (or non-exempt) employee receive at least one month of in-house training after being hired? (1) yes (2) about half do (3) no

PARTICIPACIJA RADNIKA U UPRAVLJANJU KAPITALISTIČKIM FIRMAMA

Analiza programa „Kružoci za poboljšanje kvaliteta rada“

Robert DRAGO

Re z i m e

U članku se razmatra dinamika klasnog konflikta participacije radnika u upravljanju kapitalističkim firmama i ispituje relevantni materijal, zasnovan na istraživanjima obavljenim u 42 firme tokom 1984. godine u Milvoki oblasti sa programima "Quality Circles". Došlo se do zaključka da je uspeh programa, u pogledu štednje troškova, povećanog zadovoljstva radnika poslom, privrženosti radnika programu i trajanje programa, potpuno zavisio od stepena autonomije date radnicima. Međutim, stepen autonomije koji je potreban da bi se ostvarili ovi rezultati minimalan je i obično ne uključuje radnike u odlučivanje, koje je tradicionalno prepušteno rukovodećem kadru. Takođe, sindikat svojim aktivnim učešćem pokušava da štiti interese radnika u programu, a nesigurnost u zapošljenju izgleda da stabilizuje programe tokom dužeg perioda. Ovi rezultati nagoveštavaju da se loš položaj radnika u odnosu na rukovodeći kadar u kapitalističkim firmama nastoji zadržati u kontekstu participacije radnika u upravljanju, mada postoji neznatna mogućnost da takve aktivnosti dovedu do povećane demokratije na radnom mestu.