



Prescriptions for managing change: a survey of their effects in projects to implement collaborative working between organisations

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Abstract

This paper reports on a quantitative study of 100 companies which had attempted to move towards a more collaborative relationship with another organisation. Judged on criteria set out in the survey 46 had succeeded and 54 had failed in their attempt to implement supply chain partnering. A questionnaire invited respondents to indicate which project management practices (drawn from a review of the change management literature) they had used. Statistical analyses showed that four practices accounted for most of the difference between successful and unsuccessful implementation. These concerned project goals, resources, structures and controls. Many conventional change management prescriptions had no statistically significant effect on the outcome. The paper relates these results to theories of change management and draw the practical implications. These are likely to apply to many other types of change project. © 2000 Elsevier Science Ltd and IPMA. All rights reserved.

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1. Change projects often fail to meet expectations

Projects intended to implement significant changes in the way an organisation works seldom turn out as expected. Some exceed expectations. Many others fall short of their promoters' intentions. Kearney [1] and the Economist Intelligence Unit [2] found a high failure rate when European companies adopted Total Quality Management (TQM) systems. Hougham [3] and Boddy and Gunson [4] have shown how information technology projects can take longer and cost more to implement than was expected—as well as delivering substantial benefits. Wastell [5] concluded that “Business Process Re-engineering (BPR) initiatives have typically achieved much less than promised” (p. 230). As Burnes observed, “even well established

change initiatives, for which a great deal of information, advice and assistance is available, are no guarantee of success” ([6], pp. 172–173).

Part of the reason must be the inherent novelty and complexity of the change being developed. Rapid technical developments, and the promise of prime mover competitive advantages, tempt senior managers towards novel solutions. They sign up to projects involving advanced systems which inevitably require a great deal of learning and discovery during implementation. Another factor is the unique organisational setting of each attempt at change. Even a well-known management practice acquires a degree of novelty when it is applied in a particular organisation, with its own distinct history and current circumstances. It is easy to ignore the systemic nature of organisations, and so underestimate the ripple effects of a project, and hence the scale of what needs to be done. And any one project is likely to be part of a wider cluster of changes which will have unpredicted links to each other.

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Another explanation, and the focus of this paper, lies in the way people manage the change. There are many anecdotal examples of management introducing potentially acceptable changes in a way that is almost guaranteed to create indifference, opposition and failure. The process of implementation matters as much as the content or substance of the change. Changes that affect how people work, who they work with, their status, interests and future prospects are inherently different from those that involve isolated physical changes. The use of established project management techniques will undoubtedly assist those conducting messy organisational change projects. But they cannot in themselves cope with situations where there are different interpretations of what should be done, or major conflicts of interest over the solutions proposed. Nor are participative or consultative techniques likely to be sufficient where a change threatens established practices that have deep significance to those affected. Such changes are likely to require a range of approaches to get things done. These could include using political and power-based methods [7–9] as well as those of project management and participation.

So the search continues for the factors that make the difference between successful and unsuccessful change projects. In this article, we present the results of a quantitative study of supply chain partnering, a form of organisational change currently in fashion. In the next section, we outline what we mean by the term and relate it to organisational change in general. We then indicate our perspective on change projects and summarise the many prescriptions which observers have offered to those responsible for managing such projects. We present the methods and results of our survey and conclude with the practical implications for those managing supply chain projects and other forms of organisational change. This latter section also draws upon the evidence of long-term case studies conducted as a separate element of the research project.

2. Supply chain partnering as an example of change

Supply chain partnering refers to situations in which organisations at related points in the supply chain agree to work in a more co-operative rather than adversarial manner. The argument is that extreme forms of hierarchies and markets have disadvantages (see, for example, Ref. [10]). Partnering occupies the middle ground between them as a way of organising economic activity. It is an attempt to build close, long-term links between organisations that are distinct, but which see benefits in working closely together.

Introducing partnering involves substantial changes in both organisations. There is more to it than a willingness to work together to develop a trusting relation-

ship. If this happens it does so on the foundations of many tangible changes in the way the two organisations work, and in the organisations themselves. There is scope for radical changes in the allocation of responsibilities for doing and co-ordinating work. Companies often need to re-design business processes and perhaps some of their technologies and physical facilities. It may also require deep cultural changes if people in both organisations are to move from an adversarial, arms-length relationship to one that is more collaborative and with greater mutual obligations.

In many respects partnering is similar to other forms of large-scale organisational change. There are many players and interest groups; it is affected by policy changes at other levels of either of the partnering organisations; it is implemented in the course of conducting the daily business of both organisations; and the unfamiliarity of the concept means that implementation is more of a voyage of discovery than of following a well-charted route. The parallels with emerging views of strategy [11] are close. Understanding how companies tried to implement this form of innovation, and whether the methods used affected the outcomes, is likely to be useful to those managing any form of major change.

3. Perspectives on organisational change

The study reported here took account of current theories of organisational change. Fairly common ground in modern empirical studies of change is that the outcomes of innovation are unpredictable. They reflect not only the substantive novelty of the change itself but also how parties promote their interests through the structures, cultures and political systems of the organisation [12,13]. This interplay of interest groups, within a dynamic business environment, often means that change projects take unexpected turns. This brings new challenges to managers charged with implementing them. That led the research team to ask whether common prescriptions about managing change helped or hindered project managers in dealing with such complex and volatile situations.

The team, therefore, reviewed a selection of commonly cited works on change management, such as Slevin and Pinto [14], Kanter [15], Kotter and Schlesinger [16], Dawson [12] and Burnes [6] together with other relevant empirical work such as Boddy and Buchanan [17] and Macbeth and Ferguson [18]. It appeared that there was some consistency in the prescriptions made by these authors. Grouping them under the broad headings of project planning, structure and implementation, 11 practices were identified

which were commonly recommended to those implementing change. These were:

Project planning

- setting clear goals
- ensuring agreement with goals
- having senior management commitment

Project structure

- creating structures to manage the change
- ensuring adequate resources
- having a powerful and respected champion
- appointing a capable project manager

Project implementation

- creating a project team with the right membership
- preparing a detailed yet flexible project plan
- consulting widely with those affected
- setting up adequate controls.

The difficulty is that most of these prescriptions were based on personal experience or deductions from a small number of cases. The latter can give valuable insights into a particular situation, but it does not follow that the conclusions apply elsewhere. The research team therefore decided to test the validity of such prescriptions by drawing on a much wider range of experience. The aim was to establish if there was any quantitative evidence about the relative effectiveness of the prescriptions on how to introduce change.

A postal survey was designed to explore those aspects of the change process most suitable to that research technique. The major themes were:

- what proportion of attempts at partnering succeeded?
- were some of the recommended change management practices more often linked with success than others?

The hypothesis was that:

The project management practices used in organizations which claimed to have implemented partnering successfully would differ significantly from those which claimed to have been less successful.

The survey began by presenting respondents with a definition of partnering offered by Partnership Sourcing [19]. It then elaborated this and sought to establish the current status of partnering in the organisation. The questions directed at the process of change took the form of statements about change management practices, grouped as above. Thus project planning was covered by Questions 4–12, project structure by Questions 13–23 and project implementation by Questions 24–45. For each statement, respondents were asked to indicate the extent to which it had been

used on their partnering project by indicating a point on a 5 point scale. The survey concluded with standard information about the company. Those parts of the questionnaire most relevant to this discussion are reproduced in Appendix A.

4. The survey

A pilot study was conducted amongst participants on a related workshop. The main survey was conducted among firms which had some (however limited) experience of supply chain partnering. The source was a database of companies which had independently requested information on the topic. We selected 350 companies and posted a copy of the questionnaire to the contact name. We received 100 (29%) usable returns.

The largest single group (42%) of replies came from manufacturing businesses. Respondents were asked to indicate their own position in relation to the partnering project. 41% described themselves as the main promoter or champion. Others included 'part of implementation team' (19%), 'project manager' (6%) and 'part of strategic planning group' (21%)—indicating a well-informed group of respondents.

The research team divided responses into those which claimed to have been successful in introducing partnering, and those which had not. The basis for this decision was the respondents' answer to a question about the outcome of the partnering project. Clearly, there are hazards with this, but various statistical tests confirmed that the two sets of replies were being accurately distinguished. Other statistical tests confirmed that the position of the respondent in relation to the project had not significantly affected their perception of the outcome.

5. The results — what factors made a difference?

Two forms of statistical analysis were used, chi-square and discriminant function. The results are presented for both analyses, and then discussed.

The chi-square analysis showed that (at a significance level of 0.01) companies which had been unsuccessful in partnering had dealt with four practices differently from those which had been successful. These are shown in Table 1.

In order to establish more clearly which combination of variables most contributed to success or failure, we then used discriminant function analysis [20]. This showed that answers to five questions on the process of change—7, 14, 35, 38 and 39 contributed most to success or failure. Companies which had been successful at partnering tended to agree with the statements in Questions 7, 14 and

Table 1
Common prescriptions which had a statistically significant effect on project *success*

	1 (totally disagree)	2 (strongly disagree)	3 (neutral)	4 (strongly agree)	5 (totally agree)	Total (100%)
Q7 (chi = 9.67)	The people affected by the change within my organisation agreed with the goals					
Unsuccessful	2 (4%)	13 (24%)	24 (44%)	12 (22%)	3 (6%)	54
Successful	1 (2%)	4 (9%)	11 (24%)	21 (46%)	9 (19%)	46
Q14 (chi = 10.48)	Management created a clear structure to manage the change					
Unsuccessful	12 (23%)	13 (25%)	11 (20%)	14 (26%)	3 (6%)	53 ^a
Successful	2 (4%)	6 (13%)	11 (24%)	15 (33%)	12 (26%)	46
Q15 (chi = 9.6)	Senior management accurately estimated the amount of resources needed to implement the change					
Unsuccessful	14 (27%)	15 (28%)	18 (34%)	5 (9%)	1 (2%)	53 ^a
Successful	3 (7%)	13 (28%)	13 (28%)	12 (26%)	5 (11%)	46
Q22 (chi = 10.2)	The joint senior team created specific lines of authority and responsibility to link it to the joint operational team					
Unsuccessful	18 (33%)	12 (22%)	14 (26%)	8 (15%)	2 (4%)	54
Successful	6 (13%)	7 (15%)	12 (26%)	15 (33%)	6 (13%)	46

^a No response—one unsuccessful company.

35. They tended to disagree with the statements in Questions 38 and 39.

Combining the results from both tests shows that the survey respondents showed a statistically significant tendency to agree with the following statements (presented to match the earlier headings):

Project planning

- Q7: The people affected by the change within my organisation agreed with the goals.^{1,2}

Project structure

- Q14: Management created a clear structure to manage the change.^{1,2}
- Q15: Senior management accurately estimated the amount of resources needed to implement the change.¹
- Q22: The joint senior team created specific lines of authority and responsibility.¹

Project implementation

- Q35: A satisfactory system was developed to measure the progress of the change.² They showed a statistically significant tendency to disagree with:
- Q38: Care was taken to ask people with different perspectives for their views on the change.²
- Q39: There was a lot of exploring and experimenting with ideas.²

¹ Shown by chi square at significance level 0.01.

² Shown by discriminant function analysis.

6. Discussion

Responses to Question 7 show that the people affected by the change in successful partnering companies had agreed with the goals. This is consistent with those prescriptions on change management which emphasize the value of putting effort into convincing those affected that the change is a worthwhile way of meeting some pressing business need. The unsuccessful companies had not secured that degree of agreement with the goals of partnering.

Answers to Question 14 show that in organisations which had been successful in implementing partnering, senior management had created clear structures within which to manage the change. This is in line with expectations, and with the prescriptions of those who have stressed that expressions of support from top management are not enough—these need to be backed with clear structures, together perhaps with redefined roles and reporting responsibilities. This is complemented by responses to Question 22, which indicate that successful companies created specific lines of authority linking the senior team to the operational team.

Question 15 indicates that management in successful partnering companies had accurately assessed the scale of resources needed for the change. This is consistent with the view in much of the literature that major change is systemic in its nature, and that a change in one part of an organisation needs to be accompanied by appropriate changes elsewhere. These depend on resources both to plan and manage the change, as well as those needed to support substantive changes, such as in equipment or training.

Responses to Question 35 shows that successful companies had introduced adequate systems to moni-

tor the change. This is likely to be especially important in a complex, multi-site change such as partnering.

Successful implementers tended to disagree with the statements in Questions 38 and 39. These results were unexpected, as they showed that successful implementers had not explored and experimented widely with ideas. This is counter-intuitive, and is certainly not in accordance with much of the established prescriptive literature. One interpretation is that for most organisations the move to partnering would have been a novel activity. There would be little in-house experience, or perhaps even interest, in this initially rather abstract concept. Extensive debate with those likely to be affected may have been seen as counter-productive in those circumstances.

It was also observed that several commonly prescribed practices, such as those shown in Table 2, appear to have had little effect either way on the outcome.

For example, it is often recommended that successful effective change requires the public support of senior management. The responses to Question 13 show that while this had occurred in 74% of successful cases (in line with received wisdom), it had also occurred in 54% of the unsuccessful cases. Question 16 give some support to the frequent recommendation

that significant change needs to be backed by a strong champion—74% of successful companies had a strong champion backing the change. Yet 50% of the unsuccessful ones also had a champion. Another common prescription is to prepare a detailed plan to manage a change. Replies to Question 33 show that this was done in 57% of successful cases—but was also done in just about as many of the unsuccessful cases. Such results show that while common prescriptions may help a project, they do not by themselves ensure success.

7. Implications for implementing supply chain partnering projects

The results indicate that many of the recommendations for managing projects based on anecdotal evidence are not in themselves a route to successful supply chain implementation. Practices such as ensuring top management support and consulting widely about the change will not do any harm. However, they should be seen as necessary rather than sufficient to the success of a supply chain project. The results also provide empirical support for the view that effective change does not depend solely on the skills of individ-

Table 2
Common prescriptions which had NO statistically significant effect on project success

	1 (totally disagree)	2 (strongly disagree)	3 (neutral)	4 (strongly agree)	5 (totally agree)	Total (100%)
(Q5)	The basic goals of the change were clearly defined					
Response	1	2	3	4	5	Total
Unsuccessful	4 (8%)	12 (22%)	11 (20%)	22 (40%)	3 (6%)	54
Successful	1 (2%)	6 (13%)	15 (33%)	17 (35%)	7 (15%)	46
(Q13)	Senior management publicly expressed their commitment to the change					
Response	1	2	3	4	5	Total
Unsuccessful	8 (15%)	8 (15%)	9 (17%)	21 (39%)	8 (15%)	54
Successful	4 (9%)	4 (9%)	4 (9%)	11 (24%)	23 (50%)	46
(Q16)	The change was backed by a strong champion (a person who was highly respected within the organisation)					
Response	1	2	3	4	5	Total
Unsuccessful	10 (19%)	7 (13%)	10 (19%)	15 (28%)	12 (22%)	54
Successful	1 (2%)	5 (11%)	6 (13%)	16 (35%)	18 (39%)	46
(Q28)	The change was run by an experienced project manager					
Response	1	2	3	4	5	Total
Unsuccessful	11 (20%)	8 (15%)	12 (22%)	13 (24%)	10 (19%)	54
Successful	6 (13%)	4 (9%)	10 (22%)	16 (35%)	10 (22%)	46
(Q33)	A detailed plan was prepared to manage the change (Yes or No)					
Response	1 (yes)	2	3	4	5 (no)	Total
Unsuccessful	28 (52%)	0	1 (2%)	0	24 (44%)	54 ^a
Successful	18 (39%)	0	0	0	26 (57%)	46

^a No response—one unsuccessful company.

ual change agents. People with those skills are valuable, but they need to be supported by more formal, institutional devices. Senior management needs to construct a coherent framework to support individual project managers. This will include appropriate management structures, clear reporting relationships and control systems that allow progress to be monitored. Management can increase the chances of successful implementation if they give priority to the small number of factors that made a difference to success or failure at the companies in our survey.

7.1. Ensuring agreement with goals

The data implies that at the project planning stage effort put into ensuring people understand and agree with the goals will usually pay off. The hazard that besets this seemingly obvious statement is that influential players may themselves disagree about the goals of supply chain partnering or emphasise different possibilities. Faulkner [21] argues that there are four principal motivations for creating inter-organisational alliances such as supply chain partnering:

<i>Resource dependency</i>	organisations seek to reduce uncertainty by gaining greater access to or control over resources or skills which are necessary to their continued survival
<i>Spreading risk</i>	firms facing 'either an opportunity or a defensive challenge' may seek to spread financial risk by collaborating with a partner.
<i>Speed to market</i>	a partnership can create the critical mass needed to respond rapidly to a market opportunity.
<i>Low costs</i>	an alliance may be regarded as a less risky and less costly option than, say, acquisition; the creation of the critical mass may also increase productive efficiency/economy of scale.

These may be complementary, or they may conflict. They may also change as a partnering arrangement develops and matures, making it all the more essential to put time and effort into ensuring continued agreement with the current goals of the relationship. This applies to both parties.

7.2. Creating structures to manage the change

This could include establishing clearly which individuals or departments are responsible for the change and what their remit should be. Those individuals who take a leading role in partnering need an unusual com-

bination of expertise. In some respects this consists of being able to apply familiar management practices to the particular circumstances of partnering. Partnering is also likely to require an additional set of boundary-spanning skills to cope with some of its distinctive challenges arising from making internal and external change, within a volatile environment.

However, there are limitations to what people acting on their own to solve a problem or improve a process can achieve. These include the possibility that they ignore wider considerations in their decisions, use a limited range of ideas and lack the necessary power. Continuity and learning is lost if they leave.

A way to overcome this is to support individual action with structures and mechanisms. People may create new structures to support their personal initiatives—such as pulling together a task force of people whom they know support their idea. Support mechanisms also take the form of relatively formal bodies which bring the players into regular face-to-face contact through teams of various kinds. Formal structures and mechanisms can ensure that people bring a corporate perspective to their diagnosis, draw on a wider range of skills and have access to institutional sources of power.

As an example (drawn from case studies conducted as part of the same project), two companies that successfully introduced partnering gradually created a series of regular, formal meetings at which relevant staff from both companies collectively dealt with immediate and longer term issues. They provided a regular forum at which issues could be brought into the open and dealt with. These structures supported individual initiative, in that people were able to act as seemed appropriate between meetings, confident that the commercial or other implications would be dealt with at these forums.

Structures also include documentary or electronic systems to record information about the proposals, decisions and agreements made in the course of the partnering project. These are independent of any one individual and can easily move to widely dispersed sites. Others can then act in more informed and mutually consistent ways and they may also learn from experience elsewhere.

7.3. Ensuring adequate resources

The survey shows that a significant factor in the success of a project is to make realistic resource commitments. The reasons for this lie in the complexity of collaborative working, and in the systemic nature of organisations. A significant attempt at supply chain partnering is likely to require significant internal change, especially in relation to the business processes and technical infrastructures of both partners.

Partnering implies that the nature, responsibility and location of business processes within and between companies change and become more closely linked. For example, one of the case study companies introduced, at corporate level, a major global process re-engineering exercise. The stated aim was to:

“Radically simplify business process within our supply chain with the aim of reducing time, thereby creating cost reduction opportunities, maximising flexibility, improving quality and increasing customer satisfaction.”

This in turn led to significant operating changes in processes for new product development, sub-tier supplier management, materials planning, inventory management, quality assurance, scheduling, and performance management and reporting. This clearly affected their relationship with core suppliers, prompting both the customer and their suppliers to introduce compatible internal changes.

Partnering can also involve one or both parties investing in compatible technologies, such as a supplier building a plant close to the customer and investing in dedicated equipment on the surety of a long-term relationship. They are also likely to invest in electronic information systems to support their business links. Finally, management is likely to plan and introduce partnering alongside current operations and alongside other changes. Coping with parallel, interacting changes severely overload both those planning change and those affected by it, unless they are adequately resourced for the job.

7.4. Setting up adequate controls

The survey shows that using one or more of the well-established project control techniques is likely to help the success of a change project. The difficulties of knowing what is happening in a multi-site change such as partnering are formidable, and this finding indicates that investing time in this area is worthwhile. One caution is that the novelty of the change is such that it may not be clear at the outset what should be measured. Control mechanisms therefore should be sensitive to the context and focus only on critical issues.

As an example, a computer manufacture undertook a major project to relocate production of some of its models from its own site to that of a subcontractor. This involved very complex logistical arrangements as it was imperative that production was not interrupted. The change involved consequential changes at four sites—two in Europe and two in the United States. The main control device used was to hold weekly teleconferences at which all the participants who were

active on the project at the time (over 30 staff at one stage) reported verbally to all others about the state of their part of the task. This allowed instant access to the latest information, as well as enabling actions to be co-ordinated. Items were symbolically coded at each meeting with green, amber or red flags, to indicate those that were felt to be in the least and most dangerous state.

7.5. Will ‘consulting widely with those affected’ help or hinder?

The survey results suggest that companies with successful partnering projects had not consulted and debated widely about the project. This result is contrary to conventional wisdom on change management. It implies that sometimes management must be willing to drive change, rather than delay while the issues are widely discussed. They may need to use political and power skills, rather than those of participation and consensus. This approach may work when the change is so novel that many of the possibilities only become clear with experience: prior discussion may add little of value. However, extensive discussion of the results of that experimentation, and of how to further develop the system in the light of that experience, is likely to be beneficial.

This may be illustrated by one of the case study companies that decided to establish closer links with a supplier of a bulky product that was previously imported from the United States. They wanted to have a secure and reliable local source. They identified which of their current suppliers was willing to work with them to meet the demanding quality requirements and to invest both human and financial resources in developing closer links. This strategic decision was made by a very small number of senior people and the relationship began. However, at later stages of its development many more people in both organisations became involved in decisions about how best to make the relationship work. They progressively discovered the issues to be managed and built the confidence to deal with them.

8. Implications for managing other forms of change project

To the extent that other major organisational change projects are similar to partnering changes, these results may apply more widely. Some of these areas of similarity were mentioned earlier—many players and interest groups; affected by policy changes at other levels; implemented in parallel with other changes; and unfamiliarity with the detail of the concept. To the extent that managers can recog-

nise these similarities in their projects then this study should be useful. It helps them to discriminate between the many prescriptions available. The quantitative analysis of the experience of 100 companies suggests that they should concentrate their actions on four areas—ensuring agreement with goals; ensuring adequate resources; setting up adequate controls; and creating structures to manage the change.

This last point can be elaborated. Many writers on change have emphasised the role and significance of the skills of the individual change agent. We have done so ourselves in earlier work, and clearly skilled and committed change agents are essential ingredients. However, this research shows that they are not enough, and that their activities can be supported by appropriate institutional mechanisms. Such structures probably contribute to change in at least four ways.

1. They provide a known forum in which the players can raise issues, lay them on the table and seek to resolve them in conjunction with the other players. Structures provide a vehicle for bringing wider ideas to bear on a solution, including both functional and hierarchical interests [12].
2. They can link the inner context of the project to wider developments in the external context. This helps to ensure that events or information from both are brought together for scrutiny and decisions in the same forum. This can reduce the chances of inconsistent or incoherent actions being taken by individuals acting independently of one another, and the tensions between external demands and internal constraints.
3. They can integrate a cluster of changes. One change is usually part of a cluster of changes within, or affecting, an organisation. Well-designed structures enable managers to maintain an overview of such multiple changes, and in which they can balance the tensions between them.
4. They support and maintain the change over time. Major change is surrounded by volatility and can easily falter and lose momentum as priorities change, people leave or individual change agents become discouraged or overwhelmed. More formal structures can sustain or substitute individual effort to maintain momentum through difficult times and as the need arises. They may be a stronger barrier to the forces of inertia than an individual. This is especially true of changes which cannot be fully-defined at the outset, but in which solutions are learned and discovered in the course of the change. Without a coherent institution such incremental or emerging change can become unco-ordinated or directionless motion. Structures can be the basis of control mechanisms to check on progress.

9. Conclusion

Managers are not short of advice on how to manage change projects. They are expected to produce quick and effective results, as well as deal with current operations and other parallel changes. Where best to concentrate their effort and resources? Change can only be managed by adapting any practice to the unique and particular setting in which it is taking place. However, with that caveat, this paper provides firm empirical support for the argument that they should pay particular attention to the areas of project goals, resources, structures and controls.

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Appendix A. Questions on the change processes used

Respondents were requested to indicate on a scale of 1 to 5 (where 1 is totally disagree and 5 is totally agree) the category which best described their company's experience.

Planning the change

- (4) The pressures for change were clear and urgent.
- (5) The basic goals of the change were clearly defined.
- (6) Partner organisations agreed with the goals of the new relationship.
- (7) The people affected by the change within my organisation agreed with the goals.
- (8) There was a lot of uncertainty about the costs and implications of the change.
- (9) The change was expected to disrupt a lot of established practices.
- (10) The costs of the change were expected to be greater than the benefits.
- (11) The goals of the change were in line with the general goals of the organisation.
- (12) The change just seemed to be inappropriate to our culture and style.

How your organisation structured the change process

- (13) Senior management publicly expressed their commitment to the change.
- (14) Senior management created a clear structure within which to manage the change.
- (15) Senior management accurately estimated the amount of resources needed to implement the change.

- (16) The change was backed by a strong champion (a person who was highly respected within the organisation).
- (17) An internal senior level team was set up to handle the strategic issues.
- (18) An internal team was set up to handle operational implementation issues.
- (19) A senior level team was set up to handle operational implementation issues.
- (20) Teams were set up with joint membership from both organisations to handle operational implementation issues.
- (21) The senior level strategic team created specific lines of authority and responsibility to link it to the internal operational team.
- (22) The joint senior level team created specific lines of authority and responsibility to link it to the joint operational team.
- (23) Top management received regular feedback on the progress of the change.

Partnering implementation in your organisation

- (24) Partners contributed to problem solving as much as our own staff did.
- (25) Partners were able to influence the changes in practice which they had to make.
- (26) The change goals were explained to all of our staff who were affected by them.
- (27) The change goals were explained to all affected staff in our partner's organisation.
- (28) The change was run by an experienced project manager.
- (29) The implementation team included people with adequate technical skills.
- (30) The implementation team included people with adequate management skills.
- (31) The implementation team had specific lines of authority and responsibility.
- (32) The implementation team was committed to the success of the change.
- (33) A detailed plan was prepared to manage the change. Yes/No.
- (34) The change plan was flexible enough to adapt as circumstances changed.
- (35) A satisfactory system was developed to measure the progress of the change.
- (36) Careful studies were made of the changes in practice that would be needed.
- (37) Staff involved were actively encouraged to identify possible difficulties.
- (38) Care was taken to ask people with different perspectives for their views on the change.
- (39) There was a lot of exploring and experimenting with ideas.
- (40) Changes in staff that would be needed to support partnering were implemented.

- (41) Adequate training was provided in the new ways of working.
- (42) Affected staff were well informed about what was expected of them in the new system.
- (43) Attempts to revert to old practices were discouraged.
- (44) Resources were available to resolve practical difficulties as soon as they arose.
- (45) The successes and benefits from the change were widely publicised.

References

- [1] Kearney AT. Total quality: time to take off the rose-tinted spectacles. Kempstown: IFS, 1992.
- [2] Economist Intelligence Unit. Making quality work—Lessons from Europe's leading companies. Economist Intelligence Unit, London, 1992.
- [3] Hougham M. London ambulance service computer-aided despatch system. *International Journal of Project Management* 1996;14(2):103–10.
- [4] Boddy D, Gunson N. Organisations in the network age. London: Routledge, 1996.
- [5] Wastell DG, White P, Kawalek P. A methodology for business process redesign: experience and issues. *Journal of Strategic Information Systems* 1994;3(1):23–40.
- [6] Burnes B. Managing change. London: Pitman, 1996.
- [7] Keen P. In: Rhodes E, Weild D, editors. Information systems and organization change. Oxford: Implementing new technologies Blackwell/Open University Press, 1981.
- [8] Pfeffer J. Managing with power. Boston: Harvard Business School Press, 1992.
- [9] Graham JH. Machiavellian project managers: do they perform better? *International Journal of Project Management* 1996;14(2):67–74.
- [10] Macbeth DK. Partnering—why not? In: Proceedings of the 2nd Worldwide Symposium on Purchasing and Supply Chain Management. Stamford, England: CIPS, May 1998. p. 351–62.
- [11] Mintzberg H. The rise and fall of strategic planning. Hemel Hempstead: Prentice-Hall, 1994.
- [12] Dawson P. Organizational change: a processual approach. London: Paul Chapman, 1994.
- [13] Hardy C. Understanding power. *British Journal of Management* 1996;7:3–16.
- [14] Slevin DP, Pinto JK. The project implementation profile: a new tool for project managers. *Project Management Journal* 1986;(9):57–65.
- [15] Kanter RM. The change masters. London: Allen and Unwin, 1993.
- [16] Kotter JP, Schlesinger LA. Choosing strategies for change. *Harvard Business Review* 1979;March/April.
- [17] Boddy D, Buchanan D. Take the lead: interpersonal skills for project managers. Hemel Hempstead: Prentice-Hall, 1992.
- [18] Macbeth DK, Ferguson N. Partnership sourcing: an integrated supply chain management approach. London: Financial Times/Pitman, 1994.
- [19] Partnership Sourcing. Partnership Sourcing. London: CBI, 1990.
- [20] Harris RJ. A primer of multivariate statistics. New York: Academic Press, 1975.
- [21] Faulkner D. International strategic alliances: co-operating to compete. Maidenhead: McGraw-Hill, 1995.

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