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# Critical Issues in Large-scale Change

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by  
Teresa Joyce Covin  
*Kennesaw College, Georgia, USA, and*  
Ralph H. Kilmann  
*University of Pittsburgh, USA*

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In the past several years, there has been an increasing interest in the management of large-scale change efforts. Although the content and objectives of specific types of large-scale change efforts may vary, in general, such efforts require changes that encompass the entire organization, have occurred over a number of years, and involve fundamental modifications in ways of thinking about the business, the organization, and how the organization is managed (Nadler, 1988).

Despite the increased interest in the topic of large-scale change, few empirical studies have examined this phenomenon. While several studies have investigated important issues in various types of planned change efforts (Buchanan, 1971; Franklin, 1976; Burke, Clark and Koopman, 1984), studies of large-scale change seem to be underrepresented in the planned change literature.

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A second bias in the planned change literature is the tendency to focus on one set of stakeholders or experts in the planned change process (e.g., external consultants only). Accordingly, most empirical studies of planned change represent a particular frame of reference which may not reflect the perceptions of other stakeholders in the change effort. Attempts to present a balanced perspective by studying change processes from the reference point of multiple stakeholder groups are atypical of the planned change literature.

This article describes a study designed to delineate the impact of critical issues in large-scale change from the perspective of four stakeholder groups. Managers, internal consultants, external consultants and researchers were asked to complete a questionnaire focusing on their perceptions of important issues in large-scale change. Participants in the study identified several types of issues as having either a positive or negative impact on the success of these efforts. In addition, descriptions of large-scale change efforts obtained from respondents allowed for the testing of several specific hypotheses suggested by the planned change literature.

### Research Questions

For the purposes of this study, a large-scale change effort was defined as any planned effort designed to improve the long-term performance of an entire organization. The goal of this research was to gain a better understanding of the impact of key issues on the large-scale change process. The general research question addressed is:

What types of issues are perceived by change effort stakeholders as contributing to or detracting from the success of large-scale change efforts?

More specifically, scales were developed to assess the respondents' beliefs regarding the criticality of eight often-cited issues in the planned change literature. These scales focus on the impact of underestimating resource needs, reliance on external consultants, the consideration of other external stakeholders, the impact of change-supportive policies and procedures, reliance on top managers, program planning and control, employee participation, and the communication of expectations to employees. Theoretical support for the importance of these issues in planned change efforts can be found in the writings of Beckhard (1969), Bennis (1969), Beer (1980), Boss and McConkey (1974), Greiner (1967), Walton (1974), and others.

A secondary goal of the study was to investigate several hypotheses suggested by the planned change literature. More specifically, hypotheses concerning external pressure for change, degree and level of employee participation, and consultant involvement were explored. These variables have received much attention in the organization development literature. However, few attempts have been made to test empirically the relationship between these variables and change program success.

### *Hypotheses*

Several scholars have noted that change programs seem to be more successful in the face of external pressure for change. Environmental influences such as increased complexity, unpredictability and competition are thought to act as "change triggers" (Beckhard and Harris, 1977). Extraorganizational comparisons with firms in the same industry serve as a major force indicating the need for some type of planned change effort. Managerial action is often motivated more by performance relative to competitors than by the firm's absolute performance (Tichy, 1983). Increased competition appears to result in more employee tension (pressure for change) and a subsequent stronger desire for organizational change (Miller, 1975). Therefore, it is hypothesized that:

H1: There will be a positive relationship between the level of competition in the organization's primary industry and ratings of program success.

While the role of the external consultant is often emphasized in the planned change literature, many have questioned the degree of control consultants should have over the change process. For example, Pettigrew (1985) found that when a consultant takes greater control of the change process than does management, or when the consultant has a highly visible role, the change process meets management resistance. Beer and Walton (1987) note that managers' leadership, not consultants,

is central to managing major cultural transformations. These writings are consistent with other researchers who have emphasized the major role of internal leadership in organizations undergoing large-scale change (Tichy and Ulrich, 1984; Tushman *et al.*, 1988). Therefore:

H2: Programs that rely on a high degree of outside consultant involvement will be rated as less successful than programs that rely on a low degree of outside consultant involvement.

In the OD literature, substantial evidence suggests that more participative changes result in more commitment (Lawrence, 1979; Beer, 1980). Widespread participation is also widely viewed as a means of reducing resistance to change (French and Bell, 1978; Nadler, 1981). This is consistent with Beckhard's (1969) contention that programs for change that are, in a sense, "owned" by the people who are most affected are often more likely to succeed. These writings would suggest that a high level of participation throughout the organization is associated with program success. In other words:

H3: There will be a positive relationship between a high degree of participation in program activities (in terms of the percentage of total employees), and ratings of program success; and

H4: Programs that rely on the participation of employees at all levels of the organization will be rated as more successful than those programs that rely primarily on the participation of top management.

## Methods

### *Measurement*

All measures for this study were included in a research questionnaire. The questionnaire was divided into three sections. Section one was composed of forced choice and open-ended questions designed to collect organizational-level information on a specific large-scale change effort. Included in this section were questions pertaining to the level of perceived industry competition, the level of participants and degree of participation in program activities, and the degree of external consultant involvement. In addition to providing organizational and change program information, respondents were asked to rate the success of the programs they described on a scale of 1 (not at all successful) to 5 (extremely successful). Data from this section of the questionnaire were used in testing hypotheses 1 through 4.

Section two contained items which are often cited in the organizational change literature as critical issues in large-scale change efforts. The respondents were asked to indicate, using a 7-point Likert-type scale, the degree to which they believe a particular item impacts on the ultimate success of most large-scale change programs. The respondents were instructed to rate an item as "1" if they believed the particular issue had an extremely negative impact on the ultimate success of most large-scale improvement programs, "4" if they believed the issue had no impact, and "7" if they believed the issue to have an extremely positive impact on the ultimate success of most large-scale improvement programs. Thirty-eight of these items formed the basis for the eight multi-item critical issues scales previously mentioned and shown in the Appendix.

The final section of the questionnaire contained items designed to gather biographical information on survey respondents.

#### *Data Collection*

Individuals were selected from a university training program mailing list. This mailing list contained the names of individuals who have attended or expressed interest in seminars and conferences on the topic of large-scale change. In addition, professional membership directories and organization development-related journals and books were examined to identify recognized experts in this field and to identify organizations that are or have been involved in large-scale improvement programs.

The research questionnaire was mailed to those individuals identified through the aforementioned procedure. The respondents were asked to complete only parts two and three of the questionnaire if they did not have information concerning a specific large-scale change program. Of the 1005 questionnaires mailed, 67 were returned because they were non-deliverable, and 398 were completed and returned for a response rate of 42.3 per cent. Data were collected from 71 researchers/faculty, 58 external consultants, 80 internal consultants, and 189 managers. Of the 398 respondents, 336 reported on a specific large-scale improvement program. Three hundred and twelve of the 336 change program descriptions were included in the final analysis. Cases were not included in the final analysis if: (1) less than 100 individuals were employed by the organization or less than 100 individuals were affected by the change program; or (2) the changes described could not, in the judgement of the researcher, be considered large-scale changes.

The organizations described by respondents have attempted or are attempting to achieve major organizational changes through the implementation of some type of planned change program. In each case, substantial behavioral changes were required and the behavioral subsystem of the organization was a major focus of the change effort. The programs described had multiple goals and utilized multiple methods for achieving these goals. Thirty-one per cent of the programs described took place in manufacturing firms, 10 per cent in health care firms and 9 per cent in financial service firms. The remaining programs took place in a wide variety of organizational settings. The mean size of the organizations represented is 24,197 employees. The average age of the organizations in the sample was 65.9 years.

#### *Analysis*

Several different types of analyses were utilized in order to identify critical issues and to test the stated hypotheses. Mean scores were computed for the eight critical issue scales. These scores indicate the type of impact respondents perceived the issues to have on the large-scale change process. Correlation analysis and one-tailed *t*-tests were used to test the hypothesized relationships between organizational-level variables. Finally, open-ended responses identifying critical issues were carefully reviewed in order to identify common themes not captured in the scaled items in Part 2 of the questionnaire.

**Results**

*Identification of Critical Issues*

Table I shows the summary statistics and intercorrelations among the eight critical issue scales. The inter-item reliability coefficients (alphas) are within the acceptable range proposed by Van de Ven and Ferry (1980).

	1	2	3	4	5	6	7
1. Underestimation of resource needs Mean = 2.40, SD = 0.91 Alpha = 0.63							
2. Reliance on external consultants Mean = 3.11, SD = 0.93 Alpha = 0.68	-0.00						
3. Consideration of external stakeholders Mean = 4.93, SD = 1.1 Alpha = 0.83	-0.17 ***	-0.14 **					
4. Change-supportive policies and procedures Mean = 4.93, SD = 0.85 Alpha = 0.67	-0.08	-0.10 @	0.16 **				
5. Reliance on top management Mean = 5.16, SD = 0.80 Alpha = 0.69	-0.01	0.08	0.07	0.31 ***			
6. Program planning and control Mean = 5.61, SD = 0.60 Alpha = 0.63	-0.14 **	-0.03	0.24 ***	0.18 ***	0.24 ***		
7. Employee participation Mean = 5.82, SD = 0.72 Alpha = 0.65	-0.07	-0.10 @	0.35 ***	0.19 ***	0.12 *	0.43 ***	
8. Communication of expectations Mean = 5.89, SD = 0.72 Alpha = 0.63	-0.18 ***	-0.03	0.21 ***	0.26 ***	0.23 ***	0.51 ***	0.46 ***
@ $p < 0.1$ * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$							

**Table I.**  
Summary Statistics  
and Correlation  
Matrix

The mean values for each of the critical issue scales are shown in Table II. The scale means suggest how these variables are perceived to impact on large-scale change program success. The variable “underestimating resource needs” was viewed by respondents as having the most negative impact of the eight variables. Respondents believed that “reliance on external consultants” had a slightly negative impact on the ultimate success of most programs. “Consideration of external stakeholders” and “change-supportive policies and procedures” were viewed by respondents as having a slightly positive impact, as was “reliance on top management”. Three variables, “program planning and control”, “employee participation” and “communication of expectations” were rated by respondents as having a moderately positive impact on the ultimate success of most programs. The communication of expectations was identified as the variable having the most positive impact on the change process.

The absolute scale values indicate that none of these issues were perceived to have an “extremely negative” or “extremely positive” impact on the ultimate

Critical Issue	Mean Score						
	1	2	3	4	5	6	7
1. Underestimation of resource needs (m = 2.40, s.d. = 0.91)		X					
2. Reliance on external consultants (m = 3.11, s.d. = 0.929)			X				
3. Consideration of external stakeholders (m = 4.93, s.d. = 1.12)					X		
4. Change-supportive policies and procedures (m = 4.93, s.d. = 0.85)					X		
5. Reliance on top management (m = 5.16, s.d. = 0.80)					X		
6. Program planning and control (m = 5.61, s.d. = 0.60)						X	
7. Employee participaton (m = 5.82, s.d. = 0.72)						X	
8. Communication of expectations (m = 5.89, s.d. = 0.72)						X	
1 = Extremely negative impact on the ultimate success of most programs.							
2 = Moderately negative impact.							
3 = Slightly negative impact.							
4 = No impact on the ultimate success of most programs.							
5 = Slightly positive impact.							
6 = Moderately positive impact.							
7 = Extremely positive impact on the ultimate success of most programs.							

**Table II.**  
Perceived Impact of  
Critical Issues

success of large-scale change programs. However, this might be expected given that respondents were asked to generalize from their overall experience. Perhaps the issue categories assessed here are not sufficiently robust to have “generally” an extreme impact on program success.

### *Results of Hypothesis Testing*

Hypothesis 1 suggests that perceived program success and the degree of competition experienced by the organization will be positively correlated. Respondents were asked to indicate the level of competition in the organization’s primary industry (ranging from no competition to very high competition), as well as to assess the success of the large-scale change program described (ranging from not at all successful to extremely successful). The results of the correlation analysis show that these variables have a Pearson correlation coefficient of  $r = 0.144$  ( $p < 0.01$ ). Therefore, hypothesis 1 is supported.

Hypothesis 2 was tested by comparing the average success ratings of programs in which external consultants were not involved with the average success ratings of programs in which external consultants were involved. The success ratings of programs in which external consultants were not involved were also compared with the success ratings of programs in which external consultants were involved in most or all program activities. Both of these analyses revealed that program success did not differ significantly according to degree of external consultant involvement. Therefore, hypothesis 2 is not supported.

Hypothesis 3 suggests that perceived program success and the percentage of employees participating in program activities will be positively correlated. Respondents were asked to indicate the percentage of the organization’s employees that participated in program activities and, as noted previously, to rate the success of the program. The results of the correlation analysis show that these variables have a Pearson correlation coefficient of  $r = 0.148$  ( $p < 0.01$ ). As such, this hypothesis is supported.

Finally, hypothesis 4 was tested by comparing the average success rating of programs in which respondents indicated that all employee levels were involved in program activities with the average success rating of programs in which respondents indicated that only or primarily upper-level managers were involved. The results of a *t*-test revealed that, consistent with hypothesis 4, programs in which all employee levels participate in activities were rated as more successful than those programs in which only top managers participate ( $p < 0.05$ ). The results of the hypothesis tests are shown in Table III.

Although the results regarding hypotheses 1, 3, and 4 are statistically significant, the correlation coefficients reported for hypotheses 1 and 3 are modest as is the magnitude of the difference between the subgroups compared in hypothesis 4. Accordingly, a reliability analysis was performed on the data. Specifically, the sample was randomly split in half five times and the same analyses were performed on the subsamples. The results of these analyses are consistent with those reported in Table III. In each randomly-generated subsample the findings regarding hypotheses 1, 3, and 4 remained statistically significant at the  $p < 0.1$  level or

H1:	There will be a positive relationship between the level of competition in the organization's primary industry and ratings of program success.			
	Test: Correlation analysis			
	Pearson correlation coefficient = 0.144,			$p < 0.01$
H2:	Programs that rely on a high degree of outside consultant involvement will be rated as less successful than programs that rely on a low degree of outside consultant involvement.			
	Test: One-tailed <i>t</i> -test			
		Mean	S.D.	N
	Outside consultants were not involved	3.40	0.86	57
	Outside consultants were involved in most or all program activities	3.48	0.93	82
				$p = n.s.$
H3:	There will be a positive relationship between a high degree of participation in program activities (in terms of the percentage of total employees), and ratings of program success.			
	Test: Correlation analysis			
	Pearson correlation coefficient = 0.148,			$p < 0.01$
H4:	Programs that rely on the participation of employees at all levels of the organization will be rated as more successful than those programs that rely primarily on the participation of top management.			
	Test: One-tailed <i>t</i> -test			
		Mean	S.D.	N
	Only/primarily upper-level managers	3.09	1.03	34
	From all organizational levels	3.46	0.88	210
				$p < 0.05$

**Table III.**  
Summary of  
Hypotheses

better and hypothesis 2 continued to be rejected from lack of support. Therefore, the findings reported in this article hold consistently throughout the sample.

### Discussion

The results of this study suggest that several variables have a positive impact on the ultimate success of most improvement programs, while other types of issues have a less favorable or negative impact. The active communication of program expectations to employees, the inclusion of employees as participants in the process, as well as a high degree of program planning and control were viewed as having a moderately positive impact on the success of most large-scale change programs. Relying heavily on top management for program implementation, aligning organizational policies and procedures to be consistent with the goals of the change effort, and including external stakeholders in various phases of the program were viewed by respondents as having a slightly positive impact. On the other hand, unrealistic assessments of resource needs and allowing outside consultants to assume a high level of responsibility for the effort were

viewed by respondents as factors which would have a negative impact on the ultimate success of most large-scale improvement programs. These findings are generally consistent with the current large-scale change literature.

The data also suggest that the context in which the organization is embedded and the characteristics of the particular change program will impact on the outcome of large-scale change efforts. The results of this research seem to support the contention that several specific organizational-level variables will impact on a given change program.

First, the research indicates a significant and positive relationship between the level of industry competition experienced by the organization and ratings of success ( $p < 0.01$ ). These findings are consistent with research which suggests that the impetus for major organizational change comes most often from outside the organization and that change is more readily accepted by organization members when organizational performance is recognized as poor or deteriorating (Tushman *et al.*, 1988; Beer and Walton, 1987).

While respondents indicated that high reliance on external consultancy resources might negatively impact on the change process, there were no differences in the success ratings of programs with high versus low degrees of outside consultant involvement. This finding does not necessarily imply that outside consultants are or are not needed in order to implement successfully large-scale change programs. One conclusion might be that outside consultants should not become so involved in program activities as to diminish the roles of organizational members who are ultimately responsible for program results.

Finally, there was a significant, positive relationship between the extent of employee involvement in program activities and program success ( $p < 0.01$ ). Similarly, programs in which all levels of employees participated in program activities were rated as significantly more successful than programs in which only top managers participated ( $p < 0.05$ ). These results are consistent with years of research on the impact of participative management on decision acceptance (Coch and French, 1948) and performance on ill-structured, uncertain tasks (Vroom, 1976).

Respondents were also given an opportunity to identify additional issues or actions which they believe have an extremely positive or negative impact on the ultimate success of most improvement programs. In general, these responses seemed to emphasize issues already identified in the scaled responses. For example, over 50 per cent of the respondents indicated again the importance of employee participation and top-management support. However, respondents also identified several important issues which were not captured in the scaled items developed for this research. The following themes were mentioned by more than 10 per cent of the respondents:

- (1) The importance of strong leadership throughout the organization. The responses suggest that middle-level managers play an extremely important role in change efforts, and that lack of support and commitment of middle-managers has an extremely negative impact on the success of large-scale change efforts. Further, respondents indicated that the role of middle-managers should be one of skilled leadership, not passive commitment.

Mixed signals (e.g., canceling meetings, rewarding inconsistent behaviors, general apathy concerning the program) from any manager can cause the program to lose momentum.

- (2) There must be a clear and compelling need to begin the program. Employees must see a clear need to begin a program and the program must make sense to participants. Responses suggest that the program must fit the needs of the organization (respondents warned against "cookie-cutter" approaches), and its goals must be congruent with real business needs. Inappropriate techniques which are not directly related to the organization's strategic plan may not be taken seriously by employees.
- (3) Viewing change as a process. A number of respondents reported that labeling a long-term change effort as a "program" had an extremely negative impact on the ultimate success of such efforts. This is in line with Beer's (1988) suggestion that to label a serious change effort a "program" is to doom it from the start. The word program seems to imply an effort with a definite beginning and end, while large-scale change seems to require a more long-term perspective. Respondents suggested that planned change requires ongoing attention, patience and long-term commitment.
- (4) Addressing the needs of nonmanagerial employees. Respondents noted that the failure to recognize employees for their efforts could cripple the change effort. Recognition can be shown in a variety of ways. Responses suggest that treating participants with respect, providing individuals with the tools and information necessary to function effectively, as well as more visible rewards for contributions will have a very positive impact on the process.

### *Implications and Conclusions*

The implications noted here should be considered in the light of the following limitations. First, because this study was cross-sectional, rather than longitudinal, causal linkages among the variables cannot be demonstrated. Second, data were collected from one respondent per organization, and different large-scale improvement programs were reported by each respondent. The self-report measures (including the measure of program success) used in this study might have been completed differently by other respondents within the same organization. Finally, the low correlation coefficients between program success, competitive intensity and participation suggest that these variables, considered independently, are poor predictors of success. Other organizational and environmental variables would account for some portion of the variance in program success.

The following theoretical and managerial implications are offered with the aforementioned limitations in mind. Foremost among the theoretical implications is the possibility that the impact of several large-scale change issues may be overemphasized or underemphasized in the organizational change literature. Specifically, while respondents indicated in open-ended responses that lower and middle-level managers play a critical role in successful efforts, writings on large-scale organizational change have concentrated primarily on the role of the chief executive officer and other top-level managers. In addition, much of the

organizational change literature has been focused on the professional consultant or change agent as the key figure in the implementation of change. *This study suggests that line managers, not external or internal consultants, are the key figures in large-scale change efforts.*

The research will have its greatest application in organizations involved in or contemplating large-scale change. The specific managerial implications of this research would include the following:

- (1) Careful consideration should be given to setting the stage for large-scale change efforts. Poor preparation, including unrealistic assessments of resource needs, inadequate communication of program goals and expectations and poor program planning may considerably reduce the likelihood that a large-scale change program will be successful. In addition, the role of external consultancy resources should be carefully considered and discussed among program participants.
- (2) While primary responsibility for the change effort may lie with top management, more attention should be paid to the role of middle and lower-level managers in large-scale change programs. The data suggest that these managers will have a major impact on the success of such programs. Middle managers can do much to promote or obstruct the achievement of program goals. In addition, management would be advised to consider explicitly the needs of other program stakeholders, both internal and external to the organization. Keeping lines of communication open with clients, customers and stockholders and recognizing employees for their contributions toward program goals were widely viewed as actions which positively impact on the success of large-scale change efforts.
- (3) The findings of this study indicate that several organizational-level variables impact on the outcome of large-scale change efforts. While several of these variables are outside the direct control of management, the percentage of organizational employees directly involved in the program, and the organization level of program participants are typically subject to management influence. In other words, widespread, meaningful participation in the process does seem to contribute to program success.

In conclusion, several types of issues were identified by respondents as having a highly positive or highly negative impact on the ultimate success of large-scale change programs. The issues identified in this study provide an inventory of some of the problems and opportunities commonly associated with the implementation of major, organization-wide changes. Although the results of this study are tentative, the potential impact of these issues on the success of large-scale change programs should be seriously considered prior to beginning any such program.

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1. Underestimation of Resource Needs
  - Underestimating the amount of time necessary to implement the program.
  - Underestimating the costs of the program.
2. Reliance on External Consultants
  - Giving outside consultants primary responsibility for the success of the program.
  - Allowing outside consultants to determine the goals of the program.
  - Contracting with outside consultants to assess the organization independently prior to beginning a program.
  - Allowing outside consultants to determine the specific activities that will be a part of the improvement program.
3. Consideration of External Stakeholders
  - Seeking advice from clients, customers or stockholders before beginning the program.
  - Keeping clients, customers, or stockholders informed about the progress of the program.
  - Including clients, customers or stockholders in specific program activities.
4. Change-supportive Policies and Procedures
  - Revising organizational policies and procedures to be consistent with the goals of the program.
  - Changing promotion and selection criteria to reflect the goals of the program.
  - Hiring or promoting people who will support the program.
  - Releasing or demoting individuals who do not support the program.
  - Basing pay increases on the employee's contribution to the program.
5. Reliance on Top Management
  - Achieving agreement among top managers that improvements are necessary before beginning a program.
  - Achieving agreement among top managers as to the specific goals and methods of the program.
  - Allowing top managers to determine the goals of the program.
  - Relying primarily on top managers to implement the program.
  - Requiring top managers to participate in as many program activities as possible.
  - Monitoring top managers to make certain their behaviors are consistent with the goals of the program.
  - Placing responsibility for the success or failure of the program with the chief executive officer.
  - Depending on the chief executive officer to inspire or influence employees to support the program.
6. Program Planning and Control
  - Establishing a deadline for achieving the goals of the program.
  - Using committees, task forces, or temporary work groups to guide or monitor the program.
  - Using a program that has been designed specifically for the organization.
  - Appointing or hiring a person to co-ordinate and monitor program activities.
  - Establishing and conveying a theme for guiding the program.
  - Developing a detailed plan of all activities and events that will be a part of the program.
  - Providing employees with a written plan for the achievement of program goals.
  - Evaluating the effectiveness of the program at frequent intervals.

7. Employee Participation
  - Creating a shared vision with employees of what the organization will be like when the program is completed.
  - Involving all employees who will be affected by the program in program-related activities.
  - Involving as many employees as possible in structuring the program.
  - Scheduling frequent management-employee meetings to discuss the program.
  
8. Communication of Expectations
  - Communicating to employees exactly what results are expected from the program.
  - Providing specific training to new employees to help them understand the program.
  - Providing counseling to employees who might have difficulty accepting changes stemming from the improvement program.
  - Providing clear guidelines for expected employee behavior during and following the improvement program.