

## Relations industrielles Industrial Relations



**William A. PASMORE : *Designing Effective Organizations. The Sociotechnical Systems Perspective*. Wiley Series on Organizational Assessment and Change, New York, John Wiley, 1988, 200 pp., ISBN 0-471-88785-4**

Alexander J. Matejko

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The last four chapters are concerned with organizational structure and processes, including such topics as communication, organizational design and organizational change. In these four chapters fewer research studies are cited and there is more reliance on writings of organizational consultants. This indicates that much research needs to be done.

This textbook is directed toward the beginning student and each chapter starts with a short case or magazine article describing how particular topics such as leadership or communication actually occur in organizations. These introductory examples are more interesting than the various frameworks developed in academic research. Introductory students in business administration might benefit more from books with cases and readings as the cases would be much expanded and the articles present fewer conceptual frameworks in greater depth.

Practicing managers should read books like this to get greater understanding of how they can better communicate with employees and generally make their organizations more effective. The managers should start with the final four chapters to determine which particular topics in organizational practice have greatest interest to them. For example they might be interested in how to use quality of work life (QWL) as a tool in organizational development. They would find references to early chapters on job design, decision making and group dynamics. It would be very wise to read these other chapters before deciding whether to start a QWL program in a company.

In summary, the current urgency to get greater participation and effectiveness from both managers and employees makes all this academic research and conceptual schemes more useful. Organizational behavior is definitely a field whose time has come.

Bernard PORTIS

The University of Western Ontario

**Designing Effective Organizations. The Sociotechnical Systems Perspective**, by William A. Pasmore, Wiley Series on Organizational Assessment and Change, New York, John Wiley, 1988, pp. x + 200, ISBN 0-471-88785-4

This book deals with the question how well the social and technical systems are designed with respect to one another and with respect to the demands of the external environment. Organizations are agreements among people. «Changes in the organization will affect these agreements and vice-versa» (p. 5).

Environment is treated as a source of provocation and inspiration. The stronger this provocation, the more likely it is that a design will fail to respond adequately to it. The more growth of environmental turbulence, the more flexibility of design is needed. The more evident is the environmental provocation, the more adaptation will be focused on immediate problems. Changes through innovations are the testimony of organizations viewing the environment as the source of inspiration. The growth of external turbulence necessitates to transform the environment as well as the organization. An effective change of the environment necessitates the organizational actions to be at least as powerful as the forces that originally created the environment. In order to adapt to environmental demands, organizations must first be able to determine that demands exist and to distinguish which require response and which do not; reacting to demands may be so as they are presented or transforming the environment so as to eliminate or alter the demands. Responses to changes in the environment require resources proportionate to the significance of the changes. Environmental sensing devices should be at least as sensitive as the context which needs to be understood. The more sensitive the environmental

detection device, the more challenges will be available to response. The greater the influence of tradition on decision making, the greater the expressed need to make «rational» versus creative decisions. The greater the perceived ability to influence the environment, the more innovative design decisions will be. The more turbulent the environment, the more difficult it is to understand how current trends differ from past experience. The more successful the organization has been, the less willing it will be to give up past behaviours.

The success of adaptation to environmental challenges is directly related to the availability of alternatives for action. The more significant the adaptation to the environment required, the more difficult it will be to gain acceptance of new behaviours associated with the changes. The greater the level of experimentation in organization design, the greater the likelihood that learning will occur and lead to more effective future adaptations to the environment. The more involvement there is in the scanning process, the more commitment there will be to making changes in the organization to meet the challenges uncovered. The more energy is put into the scanning process, the more likely it is that attention will shift from exclusively internal to both internal and external opportunities for action. The impact of a vision statement regarding the organizational growth is greater with a better data-base, sentiments being captured, higher attainability, ability to demonstrate the true concern of organizational leaders, and the inspirational nature of the project. All these generalizations may be much useful in orienting organizations towards the environmental challenges.

The social system needs also much attention. The more the design of the organization permits the satisfaction of unfulfilled needs through work, the higher the level of motivation to work will be. The more flexible the organization design is, the more likely it is that continuous motivation can be achieved (needs are neither static nor entirely understood). Organizations which both create needs and satisfy them will be more successful than organizations which act only in response to stated needs. To the extent that organizations are designed to meet lower-level needs exclusively, high performance is unlikely to occur. The greater the involvement of employees in the design process, the more flexible the resulting organizational design will be, as well the clearer the understanding of how behaviours are linked to desired rewards. Designs created without the direct input of organizational members are unlikely to take into account the influence of unique population characteristics on reactions to design features. The greater the disparity between these characteristics and design features, the less successful the design will be.

To the extent that the design of an organization is consistent with naturally occurring group processes, performance will increase. The success of group-based designs for work varies directly with the amount of attention given to making group processes effective. The effectiveness of groups in organizations is related to the technical proficiency of group members, adequacy of the reward system to the cooperation demands, provision of training and other supports, good management of labour mobility in groups, and the skill of groups to handle environment. The effectiveness of group designs varies directly with the extent to which the task is stable and the knowledge differences among group members are small. Group cohesiveness and performance will increase to the extent that group tasks are defined to encompass critical interdependencies in the work itself.

The stronger the culture of organization, the more it will constrain design possibilities. The more complex the external environment, the greater the potential for internal cultural diversity. The greater the cultural diversity within the organization, the more difficult it will be to achieve consensus on design parameters. The greater the cultural difference between management and labour, the less receptive employees will be to designs proposed by management. The better fit between the organization's culture and its external environment, the more effective the organization will be.

The effectiveness of group and individual activities in an organization is directly related to the extent to which the structure of the organization supports the performance of those activities. Effectiveness is greater in the long run if a flexible structure is adapted; no single design will remain optimal over time. The most effective structure in a particular organization is one which fits with the realities of the environment and supports desired sociotechnical systems design objectives.

Regarding also the technical system several proposals are formulated by the author. The design of jobs is more stimulating when a variety of skills is demanded from the employees, skills require time to learn and master, interaction among employees does exist; there is a variability in inputs, conversion, processes and outputs, there is a continuous change or modification, direct and immediate feedback is provided, there is a flexibility in geographic movement and in work patterns, and a significant degree of relevant decision making is left to employees. Barriers to cooperation force management to utilize more coercive or political style of supervision. Technological arrangements which minimize barriers to problem solving and maximize both cooperation and flexibility are more likely to result in organizational effectiveness over the long run.

Variances should be controlled at their source. Boundaries between units should be drawn to facilitate variance control. Feedback systems should be as complex as the variances which need to be controlled. The impact of variances should be isolated in order to reduce the likelihood of total system failure. Technical expertise should be directed to the variances with the greatest potential for systems disruption. Technological flexibility should match product variability. Technology should be appropriate to the task. Inputs should be monitored as carefully as outputs. Core absorbs support. The effectiveness of the whole is more important than the effectiveness of the parts.

The technical system analysis includes the following steps: identify key success criteria, draw the layout of the system noting the flow of material, list the major steps in the conversion process, identify current unit operations, collect data on variances in each step, study interrelationships among variances within and across unit operations (a variance matrix), identify key variances, construct a key variance table, suggest technical changes to help prevent or control key variances, suggest social system changes to help prevent or control key variances.

Common organizations suffer from the variety of design ills: an over-specialization of most jobs, an over-reliance on the ability of supervisors to control employee behaviour, too great an investment in maintaining the status quo, the breakdown of interdependent systems and activities, an over-centralization of information and authority, an over-reliance on individual monetary rewards, the undervaluing of human resources, an over-reliance on technology as a solution to organizational problems, and under-attention to the external environment.

The sociotechnical consulting is mostly focused on autonomous groups, technical skill development, action group, change of reward systems, self-inspection of quality, technological change, non-rating teams, facilitative leadership, and maintenance performed by operators. The sociotechnical systems change model includes the following steps: define the scope of system to be redesigned, determine environmental demands, create vision statement, educate organizational members, create change structure, conduct sociotechnical analyses, formulate redesign proposals, implement recommended changes, and evaluate changes/redesign.

The assessment of complex organizations practiced by W.A. Pasmore is founded on six dimensions: innovativeness of leaders and subordinates, the extent to which human resources are developed and tapped, awareness of the environment and response to it, readiness to work

together in order to accomplish superordinate goals, dedication to the accomplishment of superordinate goals, the design to accomplish organizational goals. This assessment is the basis of consulting offering the clients specific programmes of organizational optimization.

The book is a very useful introduction to practicing the art of sociotechnics understood as organizational improvement by the better coordination of social, economic, and technical facts within adequate structures and procedures.

Alexander J. MATEJKO

University of Alberta

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