

Strategic Projects

Introduction

The projects in this section illustrate the variety of socio-technical field projects and their various degrees of success and failure. Herbst's account of the voyage of the Balao describes the new form of organization that developed on the key Norwegian merchant ship, through which the Norwegian merchant navy has, along socio-technical lines, transformed a conventional form of ship design into an innovative form.

In the 1970s in the United States, the government supported a number of national projects. These had to be sanctioned by top management and the union(s) involved; by the corporation as well as those involved at the plant level, where there was a joint labor/management steering committee. Funding was half by the government and half by the company. External social science consultants were employed. The results were evaluated by an independent team on a common plan developed by the University of Michigan, which covered the first 18 months of each project. The analysis by Susman and Trist of the project at Rushton coal mine, which was both a success and a failure, brings into focus the complexities and the unpredictable changes in the factors influencing outcome in such undertakings.

The paper by Trist and Dwyer analyzes the phenomena of fade-out in projects in a very large multinational firm. They show that the projects were initiated by local management but were unknown at the corporate level; many locally successful endeavors failed through lack

of higher level support. Experience of fade-out suggested that strategies of "periphery-in" should be replaced by strategies of "center-out" (Ketchum and Trist, forthcoming), which are exceedingly difficult to secure.

In the Canadian Federal Public Service, the pattern of change is assessed by Westley and Trist and shows the complexity of basic organizational change in large organizations. A few departments initiated further change, but no general change has taken place.

A special opportunity arose in the work at Norsk Hydro, the largest firm in Norway, when they decided to build a new fertilizer plant and invited the collaboration of Thorsrud and Emery. It became possible to study the plant's evolution and also to compare it with an existing fertilizer plant. The jobs in the new plant were designed on socio-technical principles with the full participation of those concerned. The results showed that 30 percent less people were required. This was the first occasion where a method of payment for overall capacity was used instead of the traditional method of payment for the particular part of that capacity actually being used.

In a parallel project in a new refinery in Shell, UK, tanker captains objected to bills of lading being signed by workers, and British Rail blamed the incidence of a fire on board a Shell rail tanker on the absence of a foreman in Shell's loading group. Key customer organizations could force an innovating organization back to conformity.

Williams shows how socio-technical principles reduced "repetition strain injury" in the Australian public service, which has gone further than those in other countries toward wide-scale application of socio-technical principles.

STRATEGIC PROJECTS: Introduction

One of the most notable projects was that carried out at Sarnia, a new Shell chemical plant in western Ontario. The consultants were Davis, one of the leading social scientists in the field, and Sullivan, a leading official of the Energy and Chemical Workers Union. Entirely new ground was broken in a number of matters, including the fashioning of a contract. Through the acquisition of ancillary skills in lab work, maintenance and administration, production workers were able to secure more time on day shifts. Despite the progress made in the first two years, the project has hung fire in the 12 or so years since then.

Microprocessor technology and the big changes it implies are considered in the next section.