

Workplace Transformation

Workplace Transformation and Human Resource Management Practices in the Pulp and Paper Industry

Summary

As the paper industry continues to struggle, the financial performance of paper companies has been much scrutinized. However, human resource practices have only seldom been the object of systematic empirical research. This project aims to provide an improved understanding of factors affecting implementation and effectiveness of high-performance work systems, in which workers are trained and motivated to take full responsibility for their work unit and its external relationships

The paper industry cannot survive without significant innovation at the mill level. Such change necessarily entails significant adjustment for workers and management alike. Field research in the form of industry surveys and site visits can help uncover key elements in successful workplace transformations.

This project is approximately 10% complete and is dependent on the collection of industry-wide survey data for analysis. Low response rates from survey recipients have seriously curtailed progress on this project. If insufficient industry-wide survey data is obtained, a case-study approach of several sites will be undertaken. It is expected that this project will conclude in June 2004.

Key Questions

- ▶ What are the performance-related impacts of work innovation, such as high performance work systems, and related

Value Proposition

Insights gleaned from actual industry experience can facilitate successful workplace transformations, resulting in greater competitiveness and increased returns for management and labor. Specifically, this research will identify effects of human resource innovations on business unit performance, such as percent uptime, percent culled paper, on-time delivery, and other parameters.

human resource management practices in the pulp and paper industry?

- ▶ What are the worker-related outcomes associated with workplace innovation?
- ▶ What factors affect the adoption and implementation of workplace innovations?

Key Results to Date

Initial work has focused on visiting mills and interviewing appropriate personnel in order to design an industry-wide survey instrument. This preliminary field work has also helped in the construction of a representative sample of mills to survey.

Site visits were made to both a paper mill and a national union headquarters. Discussions were also held with various industry consultants. These interactions were focused on learning more about the “transformed” workplace, the processes that lead to transformation, some of the on-going operational issues, and productivity measurement approaches.

Through these interactions, it was learned that the policy of various HR transformation practices and how they are affected in day-to-day operations is an important distinction. This led to a greater sensitivity to the actual usage of the practices and reinforced the initial plan to get multiple viewpoints on these practices and their effectiveness. Consequently, the industry-wide survey was designed to interview three different levels at each mill site: the human resource manager, the production manager, and a paper machine superintendent.

Also through preliminary interactions with the industry, it was learned that attempting to get comparable productivity data from mills would be a challenge. Several suggested approaches to obtain research-relevant information on this from production managers in such a way as not to reveal confidential company data. In addition, there will be an increased research focus on termination of various “transformational” practices and reasons behind these decisions.

From discussions with a few corporate level managers, a greater understanding of the various roles of corporate Human Resources, Organizational Development and Continuous Quality Improvement departments was gained. These discussions were fruitful in designing an early draft of the corporate-level HR survey.

As this project also included participation from relevant unions, a visit was made to a national union headquarters. Through discussions with key members, knowledge was gained on various ways that the national union can affect workplace transformation as well as the relationship of the national union to the local unions. This increased understanding of union structure will enable better analysis of various union-management

factors as well as more productive ways to approach local union leaders for survey participation.

Currently, a pilot survey was conducted in which 20 mill sites were contacted to verify company information and identify appropriate personnel (HR manager, production manager, paper machine superintendent) to receive surveys. From this initial effort, only three (3) completed surveys were returned. This poor response rate is a serious concern. If a similar response rate (5%) is obtained when the full list of more than 200 mills are contacted, there will be insufficient data to draw any significant conclusions.

Completion of this initial project should provide a rich data set on the prevalence of different types of work systems in the industry, ranging from “traditional” to “transitional” and “transformed” (or High Performance) work systems. Additional work will be proposed to conduct more focused site visits. This research will focus on the consequences that particular work systems have for the work relations experienced by front line mill employees. By conducting additional on-site surveys of production and maintenance workers, this research should enable an understanding of the consequences of non-traditional work systems for hourly workers’ well-being, focusing particular attention on such outcome variables as job stress, trust toward management, work involvement, and wages.

Implications for Industry

Labor costs typically represent 15 to 20% of mill operating budgets. Small variations in workplace design, employee attitudes, and behaviors are likely to have major effects on the performance of production units. The documentation of performance-related impacts of innovative work and human

resource practices will therefore be of practical importance to the management and labor union officials.

This research will identify the effects of human resource innovations on business unit performance, such as percent uptime, percent culled paper, on-time delivery, and other parameters. This project aims to transcend anecdotal evidence and provide insights of a more general character grounded solidly in a large body of empirical evidence.

Research of 36 steel production lines owned by 17 companies estimated the impact of training practices, worker involvement in teams, and enhanced labor-management communication on improvement in line uptime to be \$10 million over a ten-year period.[†] If these findings are translated to the paper industry, considering that there are many assumptions and factors included, this research represents a potential of over \$13 billion in savings over ten years for the 1300 installed machines in the U.S.

Anticipated Results and Implications

Survey results will provide a good basis for managers, workers, and union officials to consider the merits of various workplace innovations. Though there is a plethora of similar research in other industries, the level of specificity and tailoring of the research questions and data to the paper industry should facilitate analysis of the options in this area. As this project moves into Phase 2 where on-site visits for more extended periods of time will be conducted, reports will provide a richer description of various

setting-specific factors that need to be considered (e.g. union vs. non-union, Greenfield vs. Brownfield). It is hoped that these more elaborated findings provide support for both active discussion of the alternatives in workplace transformation as well as the approaches for implementing them. Other potential benefits are in the educational domain as industry-specific materials can be blended into programs for managers, workers, and union officials.

Industry Involvement and Impact

During Phase One of this research, several site visits were made to paper companies in order to collect data and develop a survey for industry-wide use. Initial contacts with mills have made them aware of the CPBIS and its research effort. Work with PIMA (Paper Industry Management Association) has increased awareness of this project. This early engagement may set the stage for later interest and use of these results by a wide segment of the industry.

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[†] From Ichniowski, Shaw, & Prennushi, June, 1997, *American Economic Review*

