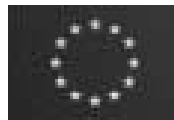


HIGH ROAD TO WORK ORGANISATION

CASE STUDY

Duni Tissue & Airlaid



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Abstract

The ability to adapt production to market fluctuations and new customer needs is an important factor for success at this small paper mill. Efficient process control is the most critical activity in the enterprise. This includes the ability of personnel, whenever necessary, to regulate, improve and adjust the process in an efficient way. To ensure that skilled personnel are always available, a system for human resource management has been developed. This includes identifying all activities necessary to determine the individual levels of skills of each employee, to place these in relation to customer demands of today and tomorrow, and to improve the individual skills of each member of staff until the requisite level has been achieved. Measurements made hitherto indicate considerable improvements in skills.

HI-RES Case Study: Duni Tissue & Airlaid

Sector

Paper Mill

Key Words

Process controls; Human resource management; Learning

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Abstract

'Good Practice' Case Study: Duni Tissue & Airlaid

Sector

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1. Background Information

Duni produces paper at four locations in Sweden, a further four in other parts of Europe, and in three locations outside Europe.

The paper mill studied is situated in Kisa, 60 kilometres south of Linköping. The production is delivered in the form of soft paper to other Duni factories, mainly for table products (30% of turnover) and for hygienic products, chiefly diapers for export and in Sweden (60% and 10% respectively of turnover). Germany is the largest single market for Duni's hygienic products.

The paper mill's turnover was SEK 350 million in 2001. The number of employees was 135, of whom 35 were white-collar workers. There are approximately 120 customers, of whom around 10 account for 80% of turnover. The enterprise does not have a unique technical profile, but aspires to create a competitive advantage in the form of speedy reactions by skilled and motivated personnel. One special feature is the good relations between management and the trade unions that have facilitated many practical attempts to change the organisation and its methods. This has provided good experience to work further on.

2. Drivers for Change

The necessity of having the requisite skills to make efficient switchovers between different existing products and to new products is the reason behind the development of the enterprise's human resource management model. The capacity to make adjustments to meet the demand for products is an important competitive factor. The development of the human resource management model was started in 1997 and is now approximately 50% complete. It was management and the trade unions that took a joint initiative to implement the model.

Long-term cooperation with Linköping University has probably been of great importance for the focus of the work on change that has been pursued for a long time by the paper mill and which the current changes merely represent the latest stage.

3. Characteristics and Process of Change

One step on the way to creating an overview and understanding of the process relationship is the "flow organisation" that was introduced in the mid 1990s. The two paper machines, which were previously regarded as a functional unit, were each given their "flow leader" whose task was to follow-up and support the results produced in the "flow". Later, subsequent sorting and packaging was also regarded as a separate flow. The flow organisation has had the effect that the individuals involved in each process have a somewhat better overview of their work.

During the latter part of the 1990s the work has consisted of identifying problems that are relevant for existing customer demand, designing routines for testing the individual knowledge of the personnel, implementing supplementary education and training programmes, and verifying the results of these programmes. The first phase, 1997-2000, which included ensuring that all individuals had the requisite skills, was implemented on the basis of this model. The operators have a financial incentive for improving their skills since their pay is linked to it.

The second phase 2000 - , has focused on ensuring that the right skills are available at cost centre level. Phase no. 3 will be ensuring that each team has the requisite skills. Relevant problems and routines for the use of the model are developed for each phase with the aim of verifying the skills that meet customer requirements.

4. Obstacles to Change

The introduction of the new model for human resource management has proceeded more slowly than estimated. One major reason for this is the hesitation to make changes shown by people whose responsibilities and powers are affected by changes in the skills structure and work organisation in the enterprise. This hesitation has been found in both white-collar workers and some blue-collar workers.

Another factor that has affected the rate of implementation is the low personnel turnover (6-7 %, 2001). Low personnel turnover leads to a gradually higher average age amongst employees. In turn this means that their ability to study declines as does their preparedness to make changes, relative to the outside world.

Flexibility has previously been defined in terms of freedom and the ability to take action. Changes have tended to be governed more by events (practice) than by predetermined criteria and principles (theory). Human resource management as an instrument for greater flexibility in the steering of processes and for efficient adjustment makes increasing demands that measures - that are taken to change the organisation and skills - should be relevant for the assignments received from customers. The dialogue between representatives of "practice" and representative of "theory" must function properly, which also takes time.

5. Risk Analysis

One identified risk in the paper mill's implementation of the new model for human resource management is that, for one reason or another, changes are not completely executed. This risk shall be understood from the perspective of the history of the paper mill, which is permeated by a large number of development projects, experiments and changes. Perhaps it lies in the nature of development work that not all plans are successfully implemented. However, the problem is that many people be exhausted by too many changes.

If the enterprise were to meet new, high priority demands for changes, there is a risk that the small paper mill's resources would not be sufficient to continue the work on human resource management. This would damage the trust built up by management among the employees and have a negative effect on the possibility of taking up the plans once again in the future.

6. Benefits of Change

For the enterprise and the personnel:

The results achieved hitherto are impressive, where verified human resource development is concerned.

Before:

After some 2,000 diagnostic tests there was a considerable divergence between the results of individuals. The highest value achieved was 100% (= when a person successfully solves all the problems included in the test). The lowest value was 5%. The average value was 61%.

After:

After completion of education and training programmes - adapted to the needs of each individual - the following results were achieved: highest value 100%, lowest value 86%, average value 97%. The figures indicate unexpectedly high effectiveness in human resource management.

The explanation of the good results is the precision with which the individual diagnosis was made and the high degree of relevance in the education and training programmes, which was guaranteed by the problems selected.

Human resource development gives individuals greater security to face the problems they meet in their work and provides an increasing amount of freedom for working on self-improvement. The system makes it possible for operators to have a career up to master craftsman level, with accompanying higher levels of pay.

Since the system started to be applied in 1998, the productivity index has increased from 161 to 218 (2001), i.e. an increase of 35%. The values in respect of complaints received and quality losses remain good.

Conclusions

Constant new customer demands and keen external competition has forced the enterprise to continuously offer new products and services. The skills and preparedness of the personnel to take appropriate action are, and will be, the crucial factor for the success of the enterprise.

Management has the responsibility for knowing what the individuals in the organisation can achieve, and how shortcomings in skills in relation to the demands of customers and processes shall be met.

In order to obtain continuity where the skills of the employees are concerned, and not to become merely dependent on enthusiasts or external experts, a clear and documented division of responsibilities and powers in the organisation is required.

Furthermore, the organisation makes internal customer and supplier relations necessary, i.e. business relations with the same respect for each other's experience and interests as if they were external relations.

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