

HIGH ROAD TO WORK ORGANISATION

CASE STUDY

Mammut Work Wear



Palle Banke

Danish Technological Institute

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Abstract

Mammut has over a period of 12 years changed what is probably the most tayloristic kind of production - the classic clothing production - into a version of the learning organisation. The enterprise has survived as a clothing manufacturer by implementing the dual strategy with a combination of outsourcing and upgrading of domestic machinists jobs. It has understood to use participation in a number of European and national projects as a lever to engage both operators and administrative staff in continuous development.

HI-RES Case Study: Mammut Work Wear

Sector

Clothing

Key Words

Pay system; Middle management; Team-based organisation; Development of self-confidence; European projects; Outsourcing

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1. Background Information

Mammot Work Wear was founded in 1982 in the town of Naestved 80 km south of Copenhagen. In the beginning, the enterprise specialised in high-quality coats, but, over the last ten years, the product range has been broadened to include a full range of work wear. Customers are large public and private enterprises, wishing to signalise the unique profile of their operation.

During recent years, a rapidly growing part of production has been outsourced to low-pay countries. Where 70 per cent was produced in Naestved in 1994, this share has today been reduced to 1 - 2 per cent. The largest foreign supplier can be found in Poland with 120 machinists and in the Far East with about 100 machinists. In Naestved, the total workforce is 35 of whom 12 are employed in the workroom.

In other words, Mammot has experienced the same development with outsourcing of production as the rest of the business in Denmark, but as one of the few Danish clothing manufacturers, Mammot has been able to sustain domestic production in a way that contributes to the overall competitiveness. The background for this is, to a very high degree, the work, which has been carried out since 1990 with development of employee qualifications and work organisation.

2. Drivers for Change

From the mid-1980s, Mammot experienced a rapid change of market requirements, like the entire Danish clothing industry, towards customers expecting earlier deliveries, smaller batch sizes, and greater variation in product types. Probably, it was especially in production of work wear that the relation between sales and production shifted. Before salesmen went on the market with products and sales terms matching an efficient and effective rational production. Now, competitiveness means that production knows how to produce on the background of customers' wishes. This can be illustrated with a quote from an interview from 1990. Here, the sales manager said:

"More and more often I feel squeezed between the customers and the production manager. The customers expect that orders for small quantities are shipped within a week. They also think they are entitled to change our designs, for example if they want an extra pocket somewhere, a new colour or the like

If I accept such orders - and the market has changed, so we may have to accept them - I can be certain to run into problems when I come back to the factory. The production manager will say that it is either impossible or extremely expensive to produce such small batches at such a short notice. It will have a negative impact on the production plan for the entire factory, and efficiency and effectiveness will be lost if he puts the order into production.

This means that many sales people refrain from targeting that part of the market, though it is in fact becoming increasingly dominant"

In addition, the recruitment base for machinists became strongly limited those years. Machinists jobs had a reputation of causing attrition and having very few challenges, and in surveys it was found that machinists strongly advised their daughters not to enter the trade. The straining and monotonous work was also correlated with a relatively high absenteeism. This general situation was the background for the decision by the machinists' trade union and the employers' federation for clothing and textiles to initiate a development project together in 1989. Mammot accepted an offer to participate as a pilot enterprise in the project, which supplied training of operators and consultancy services in connection with development of work organisation. The development work which was started more than 10 years ago continues to this day, and initiatives are still being taken to develop work organisation further.

3. Characteristics and Process of Change

The reason for inviting Mammot to participate in a sector development project was the industry's wish to establish a couple of Danish reference workplaces in order to demonstrate feasibility in connection with a transition to new production concepts. A part of this was development of new course contents for the machinist training. This focus on development gave Mammot's pilot group of 8 machinists (at that time, Mammot employed a total of 25 machinists) a very active role in the change process. They were test persons who, at the same time, had ample opportunity to bring forward their experiences and suggestions. In this case, the extensive involvement of the machinists was based on the general development character of the activity. But the positive consequences of the involvement show that it is generally advisable to ensure operators a broad influence on a change process.

Another positive feature is the close involvement of consultants and trainers who both have a responsibility to the enterprise and to the general target of a project seeking new development roads. Work forms that break with an established practice can be carried out on a trial basis as a part of the overall project, which the enterprise is participating in. Thereby, it is not necessary for all interested parties at an enterprise to be convinced in advance of the financially rational in testing new working forms. The project label implies that existing positions and old production philosophy are less threatened in connection with discussion of a radically different alternative. Several examples of this occurred when the enterprise a couple of years later entered into an EU project under the BRITE EURAM programme aiming to develop sewing machines designed for teamwork. The autonomous group at Mammot tested prototypes of sewing machines which were far more flexible and were able to do far more diverse operations than traditional industrial machines. This implied a liberation from the constraints of traditional line production where all operation places in the line have to be manned in order to avoid bottlenecks. An example was that the work in the cutting room had always been sharply separated from that of the workroom. Even though it is an advantage for the physical well-being of machinists if they now and then carry out the job of removing the cut pieces from the table, such a thought would be absolutely impossible to a supervisor being responsible for a traditional line production. If the machinists had to assist in the cutting room on a random request, the whole balancing of the line would be disrupted.

However, as an evaluation of the broader potential in autonomous groups equipped with more flexible machinery, an experiment was set up. The result proved that not only was this expansion of job functions an ergonomic advantage; it also proved to be a much more rational way of working in a team-based organisation. Members of the autonomous test group showed that they could save quite a lot of working time by packing the cut pieces in a way so that they, afterwards, could be handled directly in the order which the group had planned to make up this batch.

In the second part of the 1990s, Mammot was partner in an Adapt project together with a Greek enterprise. Also here, the activities were carried out with a high degree of participation of the machinists. For example, machinists participated on an equal footing with administrative staff in exchange and visits to the Greek partner. All these activities have achieved a very high degree of employee participation, coherence in the organisation, and agility towards the constant pressure to adapt to new conditions.

The broader perspective and the self-confidence, which participation in development projects has resulted in combined with courses in languages and IT, are the background for the important role of machinists in connection with contact with sub-suppliers abroad. Today, they are also part of the close co-operation between designer and constructor regarding development of new models. Hereby, their experiences and the specific possibilities and barriers, caused by the machinery, become included at an early stage of design of new models.

The project was based on the need for development of the machinists' jobs, but, lately, also sales and administration have begun to implement principles of team organisation, partly based on the experiences from the workroom.

4. Obstacles to Change

The greatest barrier has been the tayloristic principles which permeated the previous work organisation. Till the mid-1980s, the Danish clothing industry had stayed competitive on price through a traditional method of making working procedures continuously more efficient and effective. This had the effect that factors such as the machinists' qualifications, wage system, efficiency targets, layout, machinery, etc. were all up-to-date in a system with a sharp distribution of work and high rate of work in the individual's very limited operations. For example, it was impossible to establish flexible groups with shared responsibility under the existing piece-rate pay system. Today, via a couple of intermediate steps, the enterprise has reached the stage where the machinists are employed as salaried employees with a fixed monthly salary plus a common bonus calculated on the basis of the production result.

Another barrier was the supervisor's lack of interest in operating in a system with shared responsibility among all group members. In spite of agreements to let the group coordinator role rotate, the supervisor continued to give information to one particular member of the group. When management clarified that they wanted the agreed principles of group organisation fully carried out, both on this and some other points, the supervisor chose to seek employment outside the enterprise. After a transition period, where the production manager functioned as coach and part-time supervisor, the former supervisor's tasks have been integrated in the groups' responsibility area.

Relatively quickly, a dividing line arose between the pilot group and the machinists who were not included in the first round of change. This could partly be explained by the considerable interest which the pilot group had attracted, but also by the fact that a break with taylorism necessitates a shift to a new way of calculating productivity. With traditional measuring, the pilot group appeared as far less efficient as those who continued the traditional line production, even when you consider that the pilot group's contribution to the bottom line result was just as positive as that of the piece-rate machinists. A specific calculation showed that an efficiency number of 110 for a line production corresponds to 60 in an autonomous group. This caused a form of jealousy which made it difficult to start up production groups for the rest of the machinists, when the subject came up a couple of years after the initiation of the project.

5. Risk Analysis

The present organisation will be threatened, if the enterprise does not succeed in introducing new machinists to the present broad job contents, before machinists begin to retire. Something which can be expected to happen in 5 - 10 years. Likewise, it will be a risk to the existing model if the enterprise was to meet such financial difficulties that management would choose to move the last operator functions to low-pay countries, or if there is a change of management so that the historically based understanding of the potential of the broad integration of all functions in the enterprise is no longer present.

6. Benefits of Change

The new work organisation at Mammot has resulted in a number of advantages for both enterprise and employees. The enterprise has achieved classic operative improvements through a high degree of agility and a motivated workforce with an absenteeism of just one per cent. But the double strategy with a large part of the production outsourced and still a group of production employees at home has given advantages in the form of robustness in development of new designs. At the same time, the machinists in Denmark function as a sort of 'insurance arrangement' in the sense that they can perform small changes or repairs on products delivered from foreign producers. Finally, Mammot attempts, to a certain degree, to transfer own experiences with team organisation to

those suppliers abroad that Mammut has permanent co-operation with. At present, the possibility is discussed of having a Polish supplier establish a production group especially geared to handling small batches of a maximum of 500 pieces. However, in connection with transfer of group organisation experiences, there is a tendency that these sub-supplier enterprises are being influenced in the direction of traditional taylorism by other customers who can possibly purchase larger batches. Specifically, this has been the case with German customers.

For the machinists the change has meant completely new job contents. The far greater variation in the job contents makes the work less physically straining, and the possibility of becoming involved in all phases from design via contact to sub-suppliers to shipment has made the work far more interesting. In addition, where a machinist's job previously could be regarded as a 'dead-end' job in relation to alternatives on the labour market, the new job contents gives a broad qualification. IT courses are being supplied, and everybody has been given the offer of having a free PC at home, and, finally, there is no doubt that the more intangible concept of self-esteem has increased for everyone who has participated in the process.

Conclusions

Through efforts to upgrade employee qualifications and develop work organisation, Mammut Work Wear has demonstrated that it is possible to survive in a highly competitive sector via a combination of production in low-pay countries and domestic production. This development has been based on participation in both national and EU programmes for development of enterprise and technology. In the beginning, focus was on development of the machinists' jobs, and not until recent years has Mammut begun to implement the successful principles from the workroom in the rest of the enterprise.

The co-operation with foreign sub-suppliers has shown potential possibilities that the principles of work organisation, job quality, and flexibility, which an enterprise has adopted itself, to a certain degree, can be transferred to workplaces in low-pay countries.

Today, Mammut has concluded that a far greater vertical integration of functions is necessary in order to ensure a continued development in the enterprise.

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