

## Timely intervention

For further reading, use your BSIS access to obtain additional information, quoting keywords:

PRODUCTIVITY,  
SMALL-TO-MEDIUM-  
SIZED ENTERPRISES,  
INNOVATION,  
KAIZEN,  
VALEO

## Knowledge management – what's that?

JIT implementation needs to start with education and training of employees and also calls for strong management commitment and support. Gradual implementation will reduce production loss and improve employee morale during the change process.

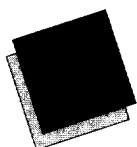
The application of JIT has been a success at Valeo and could be used to improve quality and productivity in other SMEs. The problems faced by Valeo in the two manufacturing cells on which the focus fell are both operational and strategic, and the evidence is that the concepts involved in JIT, 5S and Hoshin are as applicable to SMEs as they are to larger companies.

In the same way, many problems identified are universal. Redesigning plant layout may reduce non-value-adding activities and simplify control of material flows within the production system. Autonomous cells may serve the dual purpose of encouraging worker involvement and improving inventory control.

Flexibility is essential. Some cells may have to be merged to track the source of waste, others rearranged as low-volume jobs increase and new jobs are implemented.

Many SMEs may be doing well, or at least see themselves in that light. But the capacity for improvement at little financial cost may well be great.

This is a precis of an article entitled: "Improving operations performance in a small company: a case study," which was first published in the *International Journal of Operations and Production Management*, Vol. 20 No. 3, 2000. The authors were A. Gunasekeran, L. Forker and B. Kobu.



## Replicating best practice

Possessing knowledge is one thing – using it to best effect is quite another. Such is the experience of many companies determined to tap and share the knowledge existing within their organizations. But it can be done and Ford is one company that has done it, recording considerable bottom-line benefits.

But let us step back a moment. What exactly do we mean when we speak of knowledge management? And how do you manage knowledge effectively?

An interesting example of the challenges involved can be drawn from the experiences of a high-tech, multinational communications company, let us call it FastTech, operating in a fiercely competitive market. Fast time to market for new products is crucial if the company is to maintain the edge on its competitors. Some of its product development teams are doing far less well than others in this respect.

The company resolved to tap the knowledge that clearly exists in its best performing divisions in order to boost the performance of the laggards. To do this, it was decided to create a "knowledge repository" to encourage the sharing of information that could help boost speedy performance. A

**So, how do you make it work?**

sophisticated database was set up and there was much discussion and promotion within the company of the concepts of “know-how” and knowledge management. . . But results were disappointing, as they have been in many other companies starting out with the best of intentions of knowledge sharing and its potential benefits.

The example of Ford, meanwhile, shows just how well such knowledge management can work, when it does, and how profitable it can be. Introduced in the 37 plants making up the company’s vehicle operations division which assembles and paints the vehicles, Ford’s intranet-based best practice replication system has led to the sharing of some five to eight descriptions of best practice per week. These are concise and standardized, describing and often illustrating the practice, detailing the savings made, and giving contact details for further information. Hand-picked production engineers, or “focal points”, are responsible for implementing best practice and for recording state of play and results.

In one year, the company’s best practice replication system saved the company \$34 million. The value of the system, of course, lies in replication and one example of best practice has already been adopted in 35 of the company’s vehicle operations plants.

The resounding success of Ford’s system has led to similar schemes being implemented in other parts of the company including customer service and product development.

**The key to success**

So why did Ford succeed while FastTech did not? Well, the problem seems to lie in the type of knowledge targeted and its method of transfer. Unsuccessful companies such as FastTech often use methods of knowledge sharing – in FastTech’s case a database – that are incompatible with the kind of knowledge to be tapped.

If we compare the type of knowledge shared at Ford with that at FastTech it can be seen that the “best practice” in Ford’s vehicle operations division derives from processes involving routine tasks which can be standardized, and which are easily documented and are transferable to other plants. None of this is true for FastTech. Best practice in product development is non-routine, i.e. variable; it involves intuition and creativity, may demand last minute decision making, and is likely to be non-transferable to other product groups. So, while a database can be a highly appropriate means of transfer of knowledge for Ford, this is unlikely at FastTech.

There are other routes for transfer of knowledge. Based on the comparisons between Ford and FastTech operations and different types of knowledge, these can be summarized as:

- **Serial** - a team performs a task and then repeats this in a new context.
- **Near** - knowledge of largely routine work is transferred from one team to another, possibly via intranet, where a similar task is performed in a different location.
- **Far** - transfer of knowledge of a non-routine task between two different teams meeting to share experiences. Knowledge would be primarily tacit, i.e. not written down but carried in the heads of team members.
- **Strategic** - transfer of complex knowledge relating to major strategic issues, e.g. product launch or acquisitions. Knowledge would emanate from cross-functional teams and would be both tacit and explicit.

## Mutual learning through "transfer teams"

*For further reading, use your BSIS access to obtain additional information, quoting keywords:*

KNOWLEDGE  
MANAGEMENT,  
KNOWLEDGE TRANSFER,  
BEST PRACTICE,  
ORGANIZATIONAL  
LEARNING,  
PRODUCTION  
MANAGEMENT,  
FORD,  
LOCKHEED MARTIN

## A question of priorities

- **Expert** - transfer of explicit knowledge relating to a task accomplished infrequently and where the expertise of a third party, expressed in a formula or a procedure, can be tapped. Transfer could be by e-mail.

FastTech's lack of success can be seen as resulting from its method of transfer of knowledge. It was endeavoring to share what can be seen as "far transfer" knowledge via a "near transfer" method. The knowledge "carriers" are its people and intranet transfer is inappropriate.

Another company that has had notable success in knowledge management is Lockheed-Martin which designed a scheme, LM21 Best Practice, to share knowledge between its 40 operating companies. These specialize in products ranging from jet fighters to commercial electronics. The Lockheed-Martin system recognizes that all the group's companies have strengths and all can learn from others – none is "best" at everything.

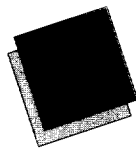
The company's system builds on 30 "transfer teams" which incorporate both "source" and "receiving" companies, i.e. those with expertise to share, and those which stand to learn from the expertise; "source" companies are usually simultaneously also "receiving" companies and vice-versa as different working practices are explored.

Individual transfer teams work as a unit for a number of months to effect knowledge transfer via development of business and implementation plans for each of the receiving sites. This is a systematic approach which effectively taps and shares knowledge of a range of processes in a reciprocal exchange between peers – a real learning among equals.

Such an approach could well suit FastTech.

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This is a précis of an article entitled "The insight track" which was originally published in *People Management*, 17 February 2000. The author was Nancy Dixon, associate professor of administrative sciences at the George Washington University, Washington DC.



## An environmental transformation

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Being a pioneer in the field is not always advantageous as many industrial firms have discovered, to their cost. Early industrial plant and practices were developed with a view to maximizing production, and little knowledge of environmental and health hazards. But all this has changed and companies can ill afford to ignore the environment. Caught flouting environmental and safety regulations, US electricity and steam heat supplier Con Edison discovered this to its cost when faced with expensive and hugely damaging legal action which severely tarnished its reputation.

Con Edison has been a major supplier of electricity and steam heat to consumers in the City of New York for 176 years. Its priority has been the efficient delivery of electricity, gas and steam to over three million homes and businesses in the city – indeed, the company claims to have the best record for reliability of any utility in the country.