Innovati⬤n in Japan

Anne Miller looks at the parallels between the innovation management techniques used by large Japanese corporations and some of the most innovative European companies. Both place great importance on the role of the engineering team leader, and use innovation processes based on tacit knowledge and a 'let's try it' culture, rather than top-down strategy and formalised processes.

Introduction

Business success requires innovation. However, although many large Western corporations are trying to develop a successful innovation process, the results are often disappointing. This is leading to a tendency to focus on acquisition of innovation rather than internal R&D.

Although it is tempting to deny it, large Japanese corporations do seem to be able to innovate, as is clear in areas such as audio-visual equipment where Japanese corporations now dominate the global market.

For many Westerners it is difficult to understand how Japanese companies have been so successful at innovation and it is tempting to proclaim that the Japanese are 'only' good at incremental innovation. However, while it is certainly true that Japanese companies are in general much more successful at incremental innovation than basic research or dramatic radical innovations, the cumulative effect of sustained incremental innovation is itself radical, as we see in the audio-visual market.

The cultural aspects of Japan's success at innovation are also puzzling. Firstly, the Japanese seem to be happiest when fitting in with the rest of the group, which hardly fits with the Western image of the individual maverick innovator. Secondly, and stranger still, Japanese managers are remarkably uninterested in strategy, to

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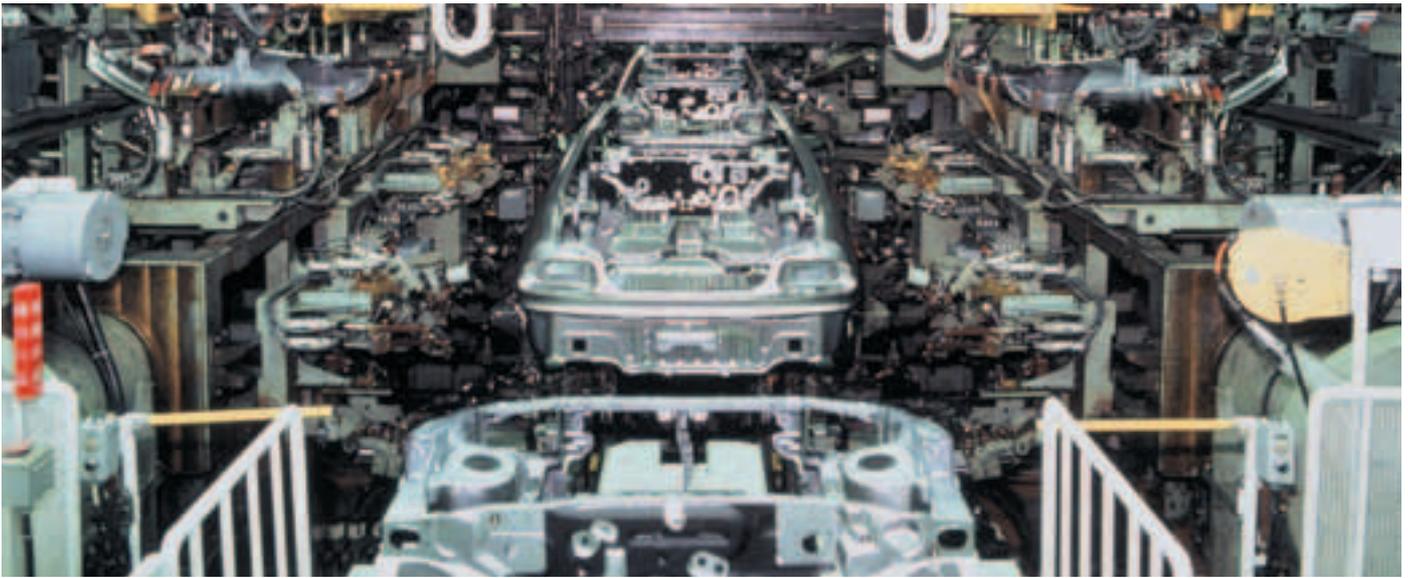
Body welding at Mitsubishi Motors at the Nagoya Plant, Okazaki, Japan

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This article is based on a series of interviews carried out during a study tour of Japanese innovation, carried out under the auspices of the EU–Japan program (www.eujapan.com), and looks at whether there are any lessons we in the West can learn from Japan about innovation. Japan is particularly interesting from an engineering perspective, as the post-War Japanese economy has been based on the fundamental assumption that economic prosperity will come from expertise in engineering, rather than from science, finance, or law.

Part of the reason for Japan's success at innovation may lie in Japanese attitudes both to strategy and to the role of the engineering team leader. Both have much more in parallel with the attitudes common in the West

in small entrepreneurial companies than in our large corporations.

Innovation management and strategy

As in the West, the role of the senior management of a large Japanese organisation is to set the direction of the company, but this will be by setting its corporate objectives and values rather than the strategy for achieving these. For example in Canon this process is known as 'Kyosei', or 'living and working together for the common good'. The focus will be much more on growth and continuing employment of the workforce rather than on profit.

Japanese corporations use a much wider diversity of management approaches than are found in Western corporations. Japanese managers say that this is because the absence of business schools means that very few managers learn a standard 'business school' framework with which to structure their experience. As there is still very low mobility between companies, each corporation evolves its own approach.

Nevertheless, in general the focus is much more on generating and sharing tacit knowledge than on codifying explicit knowledge. Japanese managers

will readily exchange experiences in what they actually do, for example in Quality Circles, but there is a significant cultural disinterest in discussing theory. In general, where Japanese methods such as JIT (Just-In-Time manufacturing) have been formulated as strategic processes and disseminated in the West (and also back to Japan), it is Western management consultants who have identified and systematised previously unnamed Japanese practices.

While senior management perhaps play a less direct role in Japan than in the West, in the Japanese process the team leader often has a much more important role, both in the process of defining the goal and feeding this up to more senior levels in the organisation, but also in leading the collective innovation process. Nonaka* refers to this as 'middle-up-down management'.

The role of the team leader

Many large Western corporations are trying to develop a successful innovation

* Nonaka and Takeuchi, *The Knowledge-Creating Company: How Japanese companies create the dynamics of innovation* (1995)

process, but unfortunately the results are often disappointing. It is therefore interesting that the Japanese approach works well in large corporations.

Although there are fundamental differences between the underlying philosophy and culture of Japanese corporations and smaller European companies, we believe that a key common factor in both is the importance placed on the role of the team leader. Both see this as being much more important than having a top-down corporate strategy, formalised processes, or the objective decision-making criteria that are so often the focus of attention in the large Western corporation.

The aim of the Japanese team leader is to keep a clear focus on the often deliberately ambiguous objectives, and to bring together the individual diverse contributions of the team members into such a close and harmonious whole that it is as if the team formed one organism. The team as a whole can then make the necessary creative leap, utilising the knowledge base of the whole group.

When performed well, this is an immensely powerful technique. This process is in keeping with the underlying philosophical feeling that is held by many Japanese, of an ambiguity in personal boundaries and a sense of fundamental unity between all living things. However, the technique also makes the characteristics of the team leader particularly important. An effective team leader will be able to harness the power of the group to create something new. An ineffective one may achieve harmony, but also stagnation.

Note that the focus on harmony does not imply a 'cuddly' atmosphere: Japanese society is still very

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hierarchical, and leaders may be pretty tough on the team members, who may well be somewhat afraid of them.

Qualities of the team leader

Mr Inoue, former board member in charge of R&D at Toyota, explained that in Toyota a Chief Designer (the individual who leads the team that develops a new model) is selected for 'enthusiasm, knowledge, open-mindedness and the ability to "smell the good one" '. A senior manager at Fuji uses similar criteria, selecting team leaders for 'experience, leadership characteristics and the ability to create new ideas for him/herself'.

It is noticeable that the focus is on technical leadership ability, rather than simply on skills in project management, and that high emphasis is placed on personal experience, tacit rather than explicit knowledge, and intuition. This is not unusual in Japanese companies. For example a senior manager at Sharp quite explicitly rated intuition as much more important than market surveys in the identification of new product opportunities.

This difference in attitude may well have its basis in the philosophical emphasis placed in the West on the distinction between intuitive and rational thought, while Japanese philosophy emphasises unity. Nevertheless, it is also noticeable that in the West it is the most

innovative organisations and managers that place the most importance on the skilled use of intuition.

The importance placed on personal tacit knowledge means that the role of Chief Designer or team leader also requires a breadth of experience. Toyota therefore select potential Chief Designers early and aim to maximise the breadth of their experience, transferring them from R&D to production, sales and 'even' planning departments. This personal experience enhances their ability to bring together the diverse and nebulous requirements and possibilities that are involved in the development of a new model.

Strength through diversity?

Japanese companies often seem wildly diverse to Western eyes. Not only does each have its own unique company style, but each may well also have a totally diverse product range which will have developed through organic growth rather than acquisition. This does not just extend to the large corporations such as Sumitomo Electric Industries, which has a product range extending from super-conductors to hair tonic, but even shows itself in smaller groups such as the 800 employees of the Mitani group who sell cement, oil, computers and write software for

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Pachinko machines (the ubiquitous Japanese pinball machines).

This diversity probably arises because if a research group in a Japanese company suggests a potentially interesting product or diversification, the attitude is very much one of 'let's try it', but in a small way so as to manage the risk. If the diversification is successful, more resources will be allocated to it. A new product idea will be brought to the market as quickly as possible, and then modified as appropriate in the light of user reactions.

This 'bottom-up', competency driven, 'let's try it out' approach has proven to be very successful at generating diversity and growth. In contrast, most publicly quoted large Western companies adopt a 'top-down' strategy or finance-driven approach, and many of them have found diversification challenging. This, together with the necessity for publicly quoted businesses to be simple enough to be readily understood by the City, has probably contributed to the current fashion to focus on core activities.

As Gary Hamel and others advocate, we might do a lot better to follow an approach based on competencies and strategic partnerships, as adopted by large Japanese companies.

Although, since the start of the Japanese recession in 1992, many leading Japanese companies are starting to try to introduce Western 'top-down' methods to improve profitability, there is still real concern in Japan about how to adapt these techniques to suit the Japanese success factors. For example, if a top-down, profit-focused approach damaged the harmony within the company, this would destroy the

Japanese innovation process. If this happened, it is very unlikely that the Japanese would be able to transform themselves rapidly, if at all, into the entrepreneurial individualistic generation of leaders that would then be needed.

The Japanese are successful innovators, even though their culture emphasises harmony rather than individual creativity. Nevertheless, as Japan's dismal economic performance since 1992 has shown, innovation alone is no guarantee of economic prosperity. Since 1992 Japan has fallen from first place to 26th in the overall World Competitiveness Index*. Although they are still in second place (after the US) for Science and Technology, the overall fall is partly because of the poor back-office productivity and excess labour that is one of the consequences of their reluctance to make redundancies, and partly because of the lack of competition that has built up because of the complex web of cross holdings between companies. The complexities of the Japanese language have also handicapped them in developing a strong IT sector, although the game software industry (for example, Nintendo and Sony) makes an interesting exception.

In conclusion

Japanese companies will probably have to learn some hard lessons from the West to help them deal with their productivity problems. However, if they can also learn from the best European examples about how to build harmonious but entrepreneurial organisations, the social consequences

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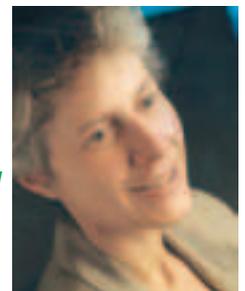of this inevitable change will be much more palatable.

Large Western corporations should also find some useful lessons in the Japanese collective innovation process. The key features of the process are:

- An approach to diversification and growth that is driven by building competencies and strategic partnerships rather than acquisition.
- The power and autonomy given to the leaders of major development projects within the companies.
- The 'harmonious' project team, led by a strong leader, which uses a collective innovation process based on tacit knowledge, human vision and experience, rather than the formal processes of a large Western corporation.
- The 'let's try it' culture, which encourages rapid development and often results in a diversity of opportunities and companies within a group.

These are the same 'organic' innovation processes that are used so successfully in small innovative companies in the West. ■

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