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Scrutinising the art of kata: How Toyota does it

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These are not pretty times for Japanese automaker Toyota. After pulling ahead of General Motors to become the world's best selling automaker in 2008, the car giant has suffered a number of blows over the last few months: plummeting car sales hit by the recession; a forced recall of 3.8 million Toyota and Lexus cars due to a braking problem; and more recently, a legal battle to place a gag-order on a former employee threatening to blow the whistle on Toyota's manufacturing ethics.

With these developments in mind, it is difficult to read Mike Rother's *Toyota Kata* without some scepticism. The 290-page book, which was obviously written during Toyota's better days, gives high praise to Toyota's leadership and improvement routines (known as *kata*) which have been credited to be the driving force behind the company's success.



But if we can put the current circumstances aside, *Toyota Kata* is a good read as it gives insight into how the car giant achieved unparalleled growth in the past 70 years. Do not expect it to spell out techniques or secrets that can be mimicked to the same effect. Instead, this book, which is the result of Rother's six years of research into Toyota, explains in detail the automaker's process for managing people. More importantly, it goes beyond Toyota's example, to discuss how organisations can transform their leadership and management to achieve competitiveness.

Chapter 9 – in which Rother describes in detail how companies can replicate the improvement *kata* – is likely to be the reader's favourite part of the book. But be warned: try not to skip ahead to this chapter as it would not make much sense until you have read the preceding chapters and understood them.

Improving and coaching

According to Rother, Toyota's *kata* (or way of doing) create a culture of constant learning and improvement among its entire workforce. This allows Toyota to respond nimbly to problems and maintain its competitive edge. The two *kata* that forms the backbone to Toyota's success are the improvement *kata* and the coaching *kata*.

Based on the improvement *kata*, change is the only constant at Toyota. The company has a routine of establishing challenging target conditions (desired future states), working step-by-step through obstacles, and learning from the problems encountered. A positive attitude also permeates: problems are regarded as "jewels" because the management wants to "see and utilise small problems to exploit the potential they reveal, and before they affect the external customer."

So at Toyota, having no problems is a problem in itself, as it means that the current processes are not being challenged and the company is in danger of stagnating. Companies that simply strive to "make production" or reach a target quota skirt around existing problems, while Toyota aims to root them out. "You may make production today, but will you still beat the competition tomorrow?" asks Rother. Hence, the improvement *kata* is not about apportioning blame; there is the assumption that people are doing their best, and that problems are *system* problems that can be understood and resolved.

Flashlight, darkness and obstacles

In Chapter 5, Rother spells out how companies can analyse production processes and establish target conditions. In the next chapter, he gives examples and shows how companies can move towards their target conditions. Contrary to the common perception that the Japanese love predictability, Rother warns that the way to reach a target condition is a gray, murky zone, with unanticipated obstacles. Rother's analogy is that of a person at the foot of a staircase, trying to work towards a desired future state but in darkness. This person holds a flashlight but it only shines a short distance into the darkness. To see further and to spot obstacles hidden in the dark, the person simply needs to step forward.

Toyota deals with the uncertainties (or darkness) by taking small, rapid steps up the stairs – learning and adjusting along the way. It is not based on wild guesses but a scientific method, consisting of formulating hypotheses, and then testing them with information obtained from direct observation.

The steps of experimentation are known as the *Plan-Do-Check-Act* (PDCA) cycle. It starts with a hypothesis,

followed by action to test it out, and a check to see how the results compare to the expected outcome, before the solution is standardised and stabilised. For Toyota, the target condition is not achieved with a single PDCA cycle, but many rapid cycles so that small problems are detected quickly and resolved along the way. In this sense, every step up the staircase is one PDCA cycle in itself.

At the end of Chapter 6, Rother gives a list of five questions which sums up Toyota's approach for moving towards a target condition. This acts like a checklist for beginners when they are on the staircase, in the PDCA phase of the improvement *kata*. They are: What is the target condition? What is the actual condition now? What obstacles are preventing you from reaching the target condition? Which one are you addressing now? What is your next step? (Start of new PDCA cycle) and last but not least, When can we go and see what we have learnt from taking that step?

Teachers and learners

After describing the improvement *kata*, Rother goes on, in Chapter 8, to flesh out the coaching *kata* which is a way of teaching the improvement *kata* to every single employee so as to increase their improvement capacity. In a nutshell, the *kata* is to develop people who live and breathe the improvement *kata* so that they can continue improving processes at Toyota.

According to Rother, everyone at Toyota is assigned a mentor who facilitates the mentee through the process of making actual improvements so that the mentee learns, over the course of his career, how to apply the improvement *kata*. This mentee then goes on to guide another person, and the cycle continues. It is interesting to note that while the mentee is to be responsible for taking action, mentors are expected to bear considerable responsibility for the results. This overlap in responsibility creates a strong bond between the two, resulting in a commonly heard expression in Toyota: "If the learner hasn't learnt, the teacher hasn't taught."

Still, Rother points out that the mentors expect their mentees to make small errors as they could lead to bigger discoveries. Based again on the belief that problems can be "jewels", mentors sometimes allow mentees to make small missteps (as long as they don't affect the customer) rather than giving them the answers up front.

To demonstrate the coaching *kata*, Rother uses an example of an assembly line involving a cast of seven characters. The situation is set out in 11 short chapters: each one outlines the situation as it progresses, and concludes with a thought-provoking analysis. This is the most practical part of the book as it allows the reader to think through the case, and figure out the next step based on all that has been learnt on the improvement and coaching *kata*. It also gives the reader a better idea of the sort of mentoring style that is practised by Toyota.

The key message that arises from the case study is that the mentor takes the effort to "Go and see" and asks the mentee to "Show me" in order to better understand the situation. Rother stresses the need for mentors and mentees to be on the factory floor to observe the processes before jumping to conclusions and coming up with irrelevant solutions.

Rother then gives a detailed explanation of how a written document (dubbed 'the A3' due to the size of the paper) helps to support the mentor-mentee dialogue. The items on the A3 would include a summary of observations or current condition; the target condition; proposals; plans; and key points from reflections.


Coaching *kata*'s future


Rother acknowledges in his book that the improvement *kata* is based on a scientific approach and thus universal in nature. He has also utilised it successfully many times and confidently recommends readers to apply what they have learnt. But the author admits that there is not enough evidence to say that the coaching *kata* is always necessary for developing the improvement *kata* behaviour. He shares candidly that "perhaps Toyota's coaching *kata* is not the only way to do it."

The long-term sustainability of Toyota's coaching *kata* which is a time-consuming and people-intensive approach, was also discussed. As the automaker expands globally, this arrangement may not be practical. Rother quotes Toyota's President Fuji Cho who said in 2004: "A vital aspect of our reinvention is changing how we choose and develop our leaders. Obviously, using only Japanese advisors cannot be done anymore. We are stretched thin."

After reading the book, one might wonder if the improvement and coaching *kata* might have been compromised as a result of the car giant's rapid global expansion. Was this why a potentially fatal braking fault in 3.8 million cars went undetected? Speculation aside, Rother's *Toyota Kata* is surely a timely reminder to Toyota, the values, philosophy and vision that once helped the company become the global leader in this high profile industry.

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