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Extreme Toyota

Radical Contradictions That Drive Success at the World's Best Manufacturer

THE SUMMARY IN BRIEF

To the casual observer, Toyota's ascent in the global auto industry reads like a rags-to-riches story, from its early struggles in the 1950s to its status today as one of the world's largest automakers. The company is rightly recognized as a paradigm of superior performance among the world's best-run, most successful manufacturing companies. With its rich history of putting a premium on the human energies that drive industrial production, Toyota stands out in many significant ways.

Industry observers, however, have long pondered the contradictions at the company's core. Toyota, to put it plainly, thrives on paradoxes; it harnesses opposing propositions to energize itself. It balances great advances with long periods of experimentation, resource frugality with extravagance in personnel and project decisions, operational efficiency with human resource redundancy.

In this summary, three business strategy scholars identify six contradictory forces that keep Toyota on the move, enabling the company to realize continuous innovation and constant renewal.

IN THIS SUMMARY, YOU WILL LEARN:

- How Toyota stimulates employees and pursues new opportunities by setting impossible goals.
- Why experimentation is crucial to Toyota's corporate culture.
- How Toyota remains sensitive to the needs and requirements of the countries and regions in which it does business, while maintaining its global position and reach.
- The ways in which Toyota's founders' philosophies still drive the company.
- Why Toyota's nerve system of open communication works.
- How Toyota's overall development and growth are enabled by an "up-and-in" human resource management system.
- How to grow a culture of contradiction and success.



by Emi Osono, Norihiko Shimizu and Hiroataka Takeuchi
with John Kyle Dorton

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THE COMPLETE SUMMARY: EXTREME TOYOTA

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Six Opposing Forces

Figuring out what makes Toyota a success is like peeling back the layers of an onion but never reaching the center. The degree of contradiction and paradox is distracting as one looks for the fundamental reasons the company has achieved so much. These paradoxes, however, are central to such an endeavor.

Very quickly, a larger pattern of expansion and integration begins to emerge — a pattern consisting of three expansive and three integrative forces unique to Toyota. The expansive forces lead Toyota toward new challenges and greater diversity and complexity, whereas the integrative forces allow the company to weave together and internalize these experiences and perspectives and make sense of the complicated environment in which it operates.

Expansive Forces

- **Impossible goals:** Toyota sets goals for itself that most would consider impossible to achieve, and it does this knowing full well that the means to achieve them may not yet exist.

Impossible goals infuse the organization with the motivation to break free of established routines and try new things. This is usually what starts a cycle of evolution at Toyota.

When Toyota rivaled General Motors as the world's largest carmaker in unit sales in 2007, it was not because Toyota had set for itself the goal of becoming number one. Rather, this was a by-product of its aim for a 15 percent global market share by the year 2010, a goal it had set in 2003 and called the "Global 15." As former Toyota President Fujio Cho explained, the Global 15 was actually a dream goal meant to inspire employees rather than

express a commitment to a specific numerical target. Year after year, Toyota's market share crept upward, aided by incremental sales averaging 650,000 units per year since 2002. The inspiring Global 15 dream is expected to become a reality by 2010, demonstrating how effective impossible goals are as a driver of Toyota's expansion.

Other examples of impossible goals at Toyota include meeting the needs of every customer by having a full line of vehicles in every market and ensuring that a Lexus with 50,000 miles on the odometer would not look, feel, sound or perform any differently from one fresh out of the factory.

- **Experimentation:** Toyota encourages a high level of experimentation and learning from failure.

The company's eagerness to experiment is an expansive force that has helped it scale the hurdles in achieving its impossible goals. Toyota operates on the premise that every original plan for a project is imperfect and incomplete and will only be completed by the project's successors. If the original plan does not work, they learn from the experience, modify the plan and try again. If it does work, they create a new routine from this successful practice and share it across the organization, aware that even new routines eventually will become obsolete. The organization then turns to chasing another challenging goal.

An example of experimentation can be seen in the development of the Scion in which one of the objectives was to shorten Toyota's product development process. The executive in charge mandated the team to develop the *bB*, later adapted for the U.S. market as the Scion *xB*, at half the development cost of similar cars. This forced the team to eliminate expensive prototyping and make extensive use of computer simulations instead. As a result, the *bB* was developed in just 15 months, rather than the



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Published by Soundview Executive Book Summaries (ISSN 0747-2196), P.O. Box 1053, Concordville, PA 19331 USA, a division of Concentrated Knowledge Corp. Published monthly. Subscriptions: \$209 per year in the United States, Canada and Mexico, and \$295 to all other countries. Periodicals postage paid at Concordville, Pa., and additional offices.

Postmaster: Send address changes to Soundview, P.O. Box 1053, Concordville, PA 19331. Copyright © 2008 by Soundview Executive Book Summaries.

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usual 24 months. After experimenting with change to develop the Scion, they were able to transfer whatever improvements this yielded to the rest of the company.

- **Local customization:** Toyota customizes products and operations to incorporate the sophistication and diversity of local markets around the world.

Local customization acts as an expansive force on Toyota in ways that are different from other firms because it doesn't just adapt to local needs. Toyota's customization approach concentrates product development and manufacturing preparation processes at its headquarters in Japan, while bringing in a high level of local input to tailor products for each market. This increases the operational complexity of the organization exponentially, while expanding the boundaries of Toyota's knowledge base as it incorporates intelligence gathered from the various markets into the central process.

An example of Toyota's local customization is found in its customization of the IMV (Innovative International Multipurpose Vehicle) which had to meet the diverse needs of consumers in more than 140 countries. Toyota designed a platform that broadly addressed the need for a vehicle that was both smooth to drive and rugged enough to handle difficult driving conditions. It produced five IMV models in the four main assembly countries of Thailand, Indonesia, Argentina and South Africa, while countries such as India, the Philippines and Malaysia manufactured IMV vehicles for their respective local markets. By using a single platform and limiting the number of models, Toyota minimized the design and production costs of the IMV.

A drawback of exponential expansion is that effective communication deteriorates, and it becomes increasingly difficult and costly to efficiently coordinate operations. How does Toyota cope with the hazards of constant expansion and growth?

While the expansive forces extend Toyota's organizational and knowledge boundaries, a set of integrative forces weave the company together and keep it from spinning out of control.

Integrative Forces

- **Founders' philosophies:** Historic words of the founders represent core values, shared and practiced by all, that are the foundation of Toyota's unique corporate culture.

- **Nerve system:** Toyota's intricately layered network of open communication promotes a cross-pollination of knowledge and practice that ensures "everyone knows everything."

- **Up-and-in:** Toyota's human resource management policy guarantees job security while emphasizing continuous development of individual creative potential through

learning and improvement. This approach is in stark contrast to the more conventional "up-or-out" management policy where those who fail are shown the door. ●

The Force of Impossible Goals

Like the navigators of early times who grew restless when in port too long, Toyota is restlessly in pursuit of new horizons and conscious of the ship's potential to run aground. This expansive pressure stimulates employees to set goals that seem difficult or even impossible to achieve, pushing them beyond conventional practices and driving Toyota's continuous self-reinvention and growth.

Make no mistake — with continuous improvement as a pillar of the organization, Toyota remains a stickler for detail in day-to-day operations. At the same time, the company is eyeing its next revolutionary step forward. Even when business is successful, senior executives are out exploring for the next source of propulsive force to power evolutionary change.

Setting tough goals to actualize the future may not be unique to Toyota, but how it sets those goals and resolves contradiction to achieve them sets Toyota apart from all other companies. Three examples that illustrate how impossible goals have driven Toyota's evolution include the following: meet every customer need; the finest cars, the finest dealers; and bypassing Japan to make a global car.

Meet Every Customer Need

It is, of course, impossible to meet every customer need in every market. Philosophically, however, Toyota is bent on meeting the needs of every customer, as stated in its internal document *Toyota Values*: "For Toyota to carry out [the policy of] 'customer first' globally, it is essential ... to respond to the needs of every customer quickly and thoroughly." This philosophy extends beyond the customer to include the supply partners; the workers on the assembly line; and the distributors, dealers and service centers.

Toyota publicly declares, in that same document, its impossible goals to raise the social consciousness of its employees, "always optimizing to enhance the happiness of every customer, as well as to build a better future for people, society and the planet we share." The goal of developing new cars for every customer segment in each country or region arises out of this sentiment.

Indeed, Toyota caters to all customer segments, with no trade-offs, especially in its two most developed markets, Japan and the United States. It makes the Corolla for the utility-minded customer, the Sienna for the family-oriented customer, the Prius for the environmentally conscious customer, the Scion for the young customer and

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so on. This approach stems from the firm belief that a car helps make people happy.

The Finest Cars, the Finest Dealers

The goals Toyota set for the Lexus not only were difficult, but seemed irrational. The primary goal was to develop “the finest cars ever built.” The Lexus required Toyota to move into areas where it lacked knowledge and experience, forcing a re-examination of its basic technologies, from manufacturing and body techniques to procurement, and it did so in the United States — only the most competitive market in the world.

The company established far-fetched targets for the car that pushed the envelope with respect to speed, fuel efficiency, noise level, air resistance and weight. These goals resulted in a number of technical contradictions that had to be resolved, without compromise or trade-off.

Bypassing Japan to Make a Global Car

In 1998, Toyota created the Innovative International Multipurpose Vehicle (IMV), a family of global cars in a production network that bypassed Japan to produce at bases in Thailand, Indonesia, Argentina and South Africa. The IMV would render the concept of “Made in Japan” irrelevant to the Toyota brand. Many Toyota executives thought it was either too risky or impossible. Former Senior Managing Director Zenji Yasuda, one of the originators of the IMV, reminded the naysayers that they would never accomplish anything if they just harped on the risks.

For IMV production to succeed, components had to be procured locally. Toyota embarked on initiatives to reduce cost, such as using the same platform and shared parts

The Six Lexus Compromises

Ichiro Suzuki, chief engineer of the LS400 development project, created a list of six technical contradictions that had to be resolved to build the car:

1. Outstanding high-speed control and stability/excellent riding comfort.
2. Fast and smooth ride/outstanding fuel efficiency.
3. Superb noise reduction/lightweight.
4. Elegant styling/outstanding aerodynamic performance.
5. Warm ambience/functional cabin.
6. Outstanding high-speed stability/excellent air resistance (low coefficient of drag).

Suzuki insisted that all the contradictory elements had to be achieved. Once the team could see that they could resolve contradictions, they were motivated to higher levels of achievement.

where possible and producing at overseas plants rather than in Japan. It developed a logistics network of international parts production, concentrating production of major components in a few key locations to gain economies of scale. When it was time to start production, the company dispatched several hundred members of the Japanese production preparation team to plants in Thailand and Indonesia, who coached workers and local suppliers. ●

Eagerness to Experiment

Toyota’s eagerness to experiment is embodied in the problem-solving routines or processes that have become a normal part of everyday business. The company evolved the Plan-Do-Check-Act (PDCA) model, which is a generic, continuous improvement process practiced widely throughout the business world, into the eight-step and A3 reporting processes, which are unique to Toyota. These are both an expression of the culture at Toyota, in which problem solving is considered to be a critical capability that is implanted in all employees early in their careers through rigorous training.

Eight Steps

The eight-step process, referred to as the Toyota Business Practices (TBP), helps employees develop the necessary problem-solving skills. The eight steps are as follows:

1. Clarify the problem.
2. Break down the problem.
3. Set a target.
4. Analyze the root cause.
5. Develop countermeasures.
6. See countermeasures through.
7. Monitor both results and processes.
8. Standardize successful processes.

A3 Reporting

The A3 reporting process is named for the 11x17-inch-size paper known in Japan as the A3. Only the most essential information needed to solve a problem is summarized on this one sheet of paper and communicated throughout the company. A3 paper was the largest size that would fit into a facsimile machine, which was the common method of communication within Toyota until the advent of the personal computer.

A lot of information can be condensed onto a sheet of A3 paper, but simplified into the company’s A3 form, the information flows according to the problem-solving process, from problem definition and description to future steps.

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Think Deep, Act Small

The eight-step process and A3 reporting process lay out the path for employees who are challenging the status quo, testing a hypothesis, and discovering what works and what doesn't. Toyota has discovered that the most practical way to realize mission impossible is to think deep but act small, taking measured steps and never giving up — the quintessential traits of an experimenter.

What sets Toyota apart from other companies as an experimenter is the way it thinks in this process and organizes it, as follows:

- *Think of the “objective of the objective.”* Clarify the ultimate objective in relation to the more immediate aims. Toyota employees are trained to think about the true objective, or the “objective of the objective.”
- *Break down the problem.* After identifying the true objective, break down the larger problem into smaller, more concrete issues and pinpoint the specific cause of each.
- *Start small and take incremental steps.* This is a historically proven approach to experimentation. Toyota's launch of its youth-friendly Scion model in the United States reflected this thinking. The launch was executed using a cascade approach — first in California (which tended to be receptive to new things), then in the South, on the East Coast and finally in the Midwest. Along the way, Toyota learned what worked and what didn't and made many incremental improvements.
- *Repeat experiments, even if they fail.* Toyota used earlier experiments in the youth market to learn what not to do with the Scion.
- *Institutionalize successful practices.* Toyota builds benefit from success and failure. When an experiment is successful, it devotes time and effort to institutionalizing the successful process and building it into daily work routines. When an experiment fails, it learns from the experience, modifies the plan and tries again.
- *Continue to raise the standard.* While Toyota institutionalizes what works, it does not assume that those new practices are effective forever. Both the eight-step TBP and the A3 reporting processes emphasize the importance of monitoring the effectiveness of a successful practice.

Experimentation Software: Values

The preceding practices constitute the hardware of experimentation. The values and principles supporting these logical routines are the software, and they can be traced back to the founders of Toyota. Mottos like “Let's give it a try” and “Don't be afraid to make mistakes” are integral to the corporate culture that enables experimentation. There are five values that serve as enablers of experimentation:

• **Value 1: Taking Decisive Action.** The mind-set of experimentation requires a willingness to take decisive action to produce results. Toyota employees are constantly encouraged to get their hands dirty with the motto “If you're 60 percent sure, take action.” Taking action and not succeeding is considered OK, because doing nothing is worse.

• **Value 2: Tolerating Failure.** Toyota has a high tolerance for failure. In fact, failure is viewed as an everyday event at the company, a sentiment originating with the founders about learning the hard way. Toyota does not just tolerate failure — it embraces failure as a mechanism for learning, recognizing that you have to fail to progress. When something goes wrong, it is viewed as an opportunity to take corrective action and learn from that experience.

• **Value 3: Being Honest.** Toyota relies on the results of experimentation to learn what works and what doesn't, but this process cannot succeed if employees feel they have to hide bad news or fabricate positive results. A unique feature of Toyota's work culture is the way it encourages all employees to admit that problems exist, to make them visible, to see them as opportunities for improvement, to identify their root causes and to take concrete countermeasures to prevent problems from recurring over the long term.

• **Value 4: Doing Good.** Trying new things and staying ahead of the times form the basic rationale for experimentation. At Toyota, these practices are not only a motivating force, but also the *duty* of employees, enabling the company to be of service to humankind.

• **Value 5: Never Giving Up.** Even though Toyota is highly tolerant of failure, it is still not easy for employees to initiate the experiment, and even more difficult to shut down an experiment that is riddled with setbacks. The key that determines whether worthwhile experiments will have a reasonable chance of any measure of success is the determination and commitment of project leaders, who never give up in the face of adversity. ●

Local Customization

Despite its global presence, Toyota remains a local company at heart, remaining sensitive to the needs and requirements of the countries and regions in which it does business. This sensitive approach to local operations is a creative contradiction as Toyota strives to be global and local at the same time and exerts an expansive pressure in the organization. The local customization process starts with the way Toyota innovates for individual markets. It then rolls these innovations into a global process that benefits every market, while maintaining local preferences and demands.

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By catering to unique sets of local preferences, Toyota is pushed to new customer targets, new business relationships, new ways of marketing, and new supply chain management systems and process technologies. Like the expansive force of impossible goals and experimentation, local customization also drives Toyota to try new things in response to the demands of local markets around the world.

Product Development and Manufacturing

The challenges of local customization are the same for every car manufacturer. Success hinges on proper handling of the economics of product development and manufacturing. The chief hurdle is figuring out how to scale vehicle design and manufacturing to yield cost benefits while satisfying local needs for customization. Toyota achieves both without compromising one or the other.

As challenging as local customization may be, it has benefits in auto manufacturing. For one, it exposes Toyota to the diversity of perspectives it needs to overcome the limitations of its own provincial origins. Learning to understand and accept these differences is the first step in facilitating local customization. Local customization also exposes Toyota to conditions unheard of in its home market that help it to further stretch the envelope in vehicle engineering.

Finally, local customization exposes Toyota to the sophistication of local tastes, as in Europe, where it was a late-comer. Virtually all new European cars introduced after the 1979 Frankfurt Motor Show were FF models: front-engine, front-wheel drive cars offering excellent handling and performance as well as comfort and a sporty look. The wide array of competitive products in Europe put Toyota on the defensive. To survive, it had to develop products that met local market demands on all these fronts.

Disseminating Local Best Practices Throughout the World

Toyota has developed new practices and processes as a result of incorporating the unique demands of customers in specific local markets. Local customization has worked because Toyota recognizes the value that diversity brings to the whole company and therefore entrusts its local operations with significant autonomy.

The challenge for Toyota was how to preserve that diversity and autonomy while encouraging each country to share its best practices for mutual benefit. As the automobile industry became globalized, Toyota pursued both localization and global commonality, through the establishment of its Global Knowledge Center, which disseminated innovation from specific local markets into a global process, to benefit the whole company. ●

The Founders' Philosophies

The power of the founders' philosophies is the glue that binds employees, dealers and suppliers and connects their aims. It acts as an integrative force in concert with Toyota's two other binding forces, the nerve system and up-and-in human resource management. The company's relentless pursuit and dissemination of the values expressed in these philosophies have effectively aligned the core values of Toyota employees, dealers and suppliers.

'Tomorrow Will Be Better Than Today'

The shared belief at Toyota that "tomorrow will be better than today" grows out of institutional memory from the difficult experience of entering the international automobile market about 50 years behind the dominant American producers and 100 years behind the established European manufacturers. Behind this phrase is the attitude that Toyota will make it a better day, as embodied in the routine practice known as *kaizen*, a Japanese word meaning "continuous improvement" that is now part of the vernacular of manufacturing industries around the world.

Kaizen is the habit of wanting to do a little better every day by eliminating waste and continuously becoming more efficient. It is an attitude of never being satisfied with the status quo, which helps explain why Toyota is continuously and persistently conducting experiments.

Everybody Should Win

The second philosophical value that serves as an integrative force within Toyota is the notion that everyone should win. As a guiding principle, it moves everyone forward together. For founder Kiichiro Toyoda, the word *everyone* includes society at large, and this is central to Toyota's mission, "To contribute to society through the manufacturing of automobiles."

On a micro level, Toyota succeeded in getting its factory workers to buy into this aim. What differentiates Toyota from its rivals even today is its view of the factory worker not only as a pair of hands on the assembly line, but as a knowledge worker who accumulates *chie*, the wisdom of experience that can only be gained on the factory floor.

The company also views its dealership network as the "Radar for All of Toyota." This mission gives dealers the responsibility to communicate their knowledge of their specific market and customer needs to the rest of the Toyota group. In contrast to the atomistic view of business relations that builds silos and limits interaction, it is a broadly interactive approach that recognizes interdependency in a business ecosystem. Dealers are partners in Toyota.

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‘Customer First, Dealers Second and Factory Last’

In Japan and overseas, “customer first” is a popular phrase but Toyota has been practicing it for more than 70 years, ever since the idea was first articulated by the Master of Sales, Shotaro Kamiya.

This concept has shaped the company’s unique relationship between distributors and dealers and between dealers and customers globally. This mind-set runs through everything Toyota does, from upstream activities such as research and development to the rank and file on the factory floor.

Genchi Genbutsu

The fourth philosophical value that is ingrained at Toyota is *genchi genbutsu*, which means “go and see things for yourself, firsthand.” The inference is that if you have not seen something firsthand, then your view of that thing is not credible. Toyota’s top executives are proud to be the *first* ones to ask, “Have you seen it?” ●

Toyota’s Nerve System

Toyota’s top executives operate on the assumption that “everybody knows everything” because the culture of communication is open and personal. Communication flows freely up and down the hierarchy and across functional and seniority levels, extending outside the organization to suppliers, customers and dealers.

Toyota’s interconnected world in the digital age is primarily analog, based on the belief that e-mail cannot replace real, human communication in the flesh. The result is an accumulation of relationships in an analog web or “nerve system,” which, in many ways, outperforms even the most advanced computer. Toyota views its people as its nerve cells that produce and transmit signals or impulses for action.

Five Characteristics of Toyota’s Nerve System

As a system, it is never complete because Toyota keeps growing and producing new nerve cells that transmit different impulses in the ever-changing business environment. There are five characteristics of this system:

- **Open and lateral dissemination of know-how.**

To facilitate teamwork, employees are encouraged to engage in *yokoten*, short for *yokoni tenkaisuru*, which literally means “unfold or open out sideways.” This approach encourages everyone to share their individual know-how and expertise openly with others.

- **Freedom to voice contrary opinions.** The organization should also be open to criticism and contradiction for the nerve system to function properly. This means everyone has to feel free to voice contrary opin-

Capturing *The Toyota Way 2001*

Under the presidency of Fujio Cho, Toyota embarked on an initiative to put into writing the wisdom of its founders that had been passed down verbally through many generations. The result was *The Toyota Way 2001* (known as the “Green Book” within the company), which kicked off a larger effort to disseminate the founders’ wisdom throughout the organization.

ions, even to top management and headquarters.

- **Frequent face-to-face interaction.** Rarely do managers at Toyota reach senior positions without acquiring and embracing the skill of listening thoroughly and intently to what employees have to say and continually questioning and probing to find a better way.

- **Making tacit knowledge explicit in the Toyota Way.** Tacit knowledge is converted to explicit knowledge every time someone verbalizes or writes down the knowledge he or she has.

- **Formal and informal organizational support mechanisms.** Formal and informal support mechanisms have been established in the organization to contribute effective functioning of the nerve system. The Toyota Institute, the Global Knowledge Center and the University of Toyota are formal organizational mechanisms supporting the nerve system that enables everyone to know everything. ●

Up-and-In Human Resource Management

The phrase *up-and-in* is derived from the opposite practice of *up-or-out* that is common in most professional firms. In the *up-or-out* system, a professional employee is either successfully promoted up the ladder or gradually forced out of the company. Toyota rarely forces out so-called underperformers, focusing instead on *upgrading* their capabilities *inside* the company through various on-the-job training (OJT) and evaluation schemes.

The *up-and-in* resource management system is the enabling environment for development and growth, and it is particularly applicable to industries like automobile manufacturing, where learning from experience is important.

Knowledge-Creation Management

There are five key aspects of an *up-and-in* human resource management system as practiced at Toyota. It is part of a system of knowledge-creation management that can be emulated by other companies in the

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How Toyota Reinforces Teamwork Goals

At Toyota, the principle “respect for people” is interpreted as “respect for the individual realizing that power is consolidated in a team.”

To actualize this sentiment, everyone above the management level of *kacho*, or section chief, submits a “mission statement” at the beginning of each fiscal year. Managers jot down their personal goals and conduct self-evaluations according to the behavioral requirements of the job. The evaluations are reviewed by supervisors who also serve as coaches in a one-hour session held three times a year.

knowledge-based business environment and has the following characteristics:

- **Stable, long-term employment.** A mutual, long-term commitment between a company and its employee in the form of stable, long-term employment is an essential aspect of up-and-in human resource management and knowledge-creation management in general. It justifies the investment of resources needed to develop organizational capabilities that only show benefits over time. Acquiring experience in several job functions or aspects of business operations equips managers to make better systemwide decisions.

- **Emphasis on training.** To build a multiskilled work force, Toyota institutionalized a number of training programs, both on and off the job, that teach problem-solving skills. During their first 10 years at the company, employees are thoroughly trained in the fundamentals of thinking their way out of problems.

- **Power in teamwork.** Individual self-actualization is emphasized at Toyota as a function of teamwork. The exemplar employees who serve as teachers and mentors are not seen as hotshots separate from the group but as a reflection of the group in which leadership is distributed. Toyota depends on all the workers in the company bringing their strengths into play to demonstrate their power as a team.

- **Action orientation.** The preference for action is a quintessential Toyota trait. The value of taking action is passed on through generations in popular phrases such as “If you’re 60 percent sure, take action” or “It’s better to fail doing something than doing nothing.” What matters more than the results is the “process” of taking action to achieve results.

- **Learning-based evaluation.** Toyota has developed a unique set of criteria for evaluating managers. For top managers, the company bases 100 percent of remuneration on performance related to results as well as process.

To evaluate process performance, the company looks at how goals are achieved; how issues are handled and resolved; how organizational skills are fostered; and how people are developed, motivated and empowered. ●

What Your Organization Can Learn From Toyota

How can other companies emulate Toyota, one of the world’s best-run, most successful organizations? Certainly, emulating Toyota is not easy. It takes time. It also requires abundant resources.

For starters, however, an organization can do three things to emulate Toyota’s extreme performance model of business management:

1. Embrace contradictions as a way of life.

Reaching new customers, new segments and new geographic areas and tackling the challenges posed by competitors, new ideas and new practices trigger the changes and improvements needed to break down rigidities. Companies must embrace these challenges and create their own contradictions to achieve higher levels of performance.

2. Develop routines necessary to resolve those contradictions.

Unless companies teach employees how to tackle problems rigorously, they will not be able to harness the power of contradictions.

3. Let all the employees and outside constituents come up with solutions.

Leaders must be open to criticism and contradiction if they want to source new ideas from any point in their organization’s ecosystem. This requires time, patience and frequent face-to-face interaction.

Conclusion

Toyota’s extreme performance model is a very human model of business management where each employee forms a vital part of the organization whole. Being human, it is an incomplete model. Being incomplete, there is room for change and renewal.

Contradictions, opposites and paradoxes are a way of life within Toyota and Toyota relentlessly pits opposing forces against each other to realize continuous innovation and constant renewal. ●

RECOMMENDED READING LIST

If you liked *Extreme Toyota*, you’ll also like:

1. **The Toyota Way** by Jeffrey Liker. Learn the 14 foundational management principles behind Toyota’s world-famous system of “lean production.”
2. **The Agenda** by Michael Hammer. The author of *Reengineering the Corporation* presents nine core principles critical to contemporary corporate success.
3. **Blockbusters** by Gary S. Lynn and Richard R. Reilly. The authors reveal the five critical practices that all successful new-product teams must follow.