

MANAGEMENT OF SYSTEMS

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*How to Follow the Path
of Deming and Toyota*

Grigory Fidelman



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*Management of Systems:
How to Follow the Path of Deming and Toyota*

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Dedicated to my family

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revealed. Special thanks to those of them who by their example as authors and owners of the tasks contributed to the success of the transformations.

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Preface

This book is for first persons. It is about how to create a competitive advantage that has brought Toyota (and not only Toyota) to world leaders. According to the author, both quality and lean production, to which so much attention is paid in the text, and in the practice of consulting, are only stages in the evolution of a Toyota-like company that once took the path of a completely unusual approach to management. And the company's competitiveness is highly dependent on how long this approach "manages" the development of the enterprise. This approach is called the author of "management of systems".

The outlined material is based on the practice of implementing projects in companies operating in the manufacturing sector and in the service sector, and even located in different countries.

Foreword

When I called the editor of the publishing house with a request to publish this book, in response, I heard the expected words for me: that the niche of books about Toyota was full and it didn't make sense for the publisher to take on another one, especially one written by a little-known practitioner. This question will arise from the reader, who is now holding this book in their hands. Indeed, why?

I will try to answer. The fact is that these numerous books (including such bestsellers as *Tao Toyota* and *Lean Manufacturing*) were written “from life”, i.e. from an already mature “individual” of Toyota, which spent more than half a century improving their system. So, what can this give to managers who are thinking of just starting? What should they do? Pick up ISO or invite lean manufacturing consultants? And move to a completely different “planet and aliens”, which seem to be the company itself, and its people?

This book is for first persons. It is about how to create a competitive advantage that has brought Toyota (and not only Toyota) to being world leaders.

According to the author, both quality and lean production, to which so much attention is paid in the text, and in the practice of consulting, are only stages in the evolution of a Toyota-like company that once took the path of a completely unusual approach to management. And the company's competitiveness is highly dependent on how long this approach “manages” the development of the enterprise. This approach is called the author of “management of systems”.

Why this is so and why the name is important is the subject of the first part of the book. The transition to management of systems is a turning

point in the history of an organization. It is akin to the emergence of a new being in the lap of the existing operating system and in this sense reminds us of the birth of a new life, long invented by nature.

It, as well as in nature, runs at a higher pace than in the “parent” company. And, like in nature, it follows the patterns, deviations from which are fraught with the death of the new system. But even if the birth occurred successfully, the development of a new system requires special, “maternal” attention. The second part is devoted to these topics.

Just as the vitality of a living organism is connected with its age, the competitiveness of a company is directly connected with the continuation of its movement along the path of improving the system of enterprises. What type of motivation must there be so that people aspire to work with the system, so that skills and abilities with regards to understanding and improving the system grow and accumulate until reaching the point of expertise? This is found in the third part.

The presented material is not the fruit of abstract thinking, it is entirely built on the basis of the practice of implementing projects in companies operating in the manufacturing and services sectors and even in different countries. The conclusion is quite clear. The opportunity to begin the path of competitiveness is not “ordered” to anyone and is entirely determined by the desire of the first person to go for deep transformations. To confirm this, we will give the floor to managers who have decided to start this journey in their companies.

Preface by D. E. Paltsev

It is believed that martial arts in ancient China originated in monasteries. The monks practiced exercise along with daily service and obedience to harmoniously develop body and spirit. All this resulted in a whole system of training, spiritual and physical development of a person (a monk or a warrior) and his constant self-improvement. And even there was a philosophical definition of this process—the Way. That’s exactly the principle of following this Path and describes the above proverb. Over time, they concluded that only systematic development and improvement, the universality of the principle allows to achieve gung-fu (translated into Russian as “art”). When the first Europeans came to China, they began to call it in Latin transcription—kung-fu and associate it with the martial art of hand-to-hand combat.

Enterprise (system) management is also a way of development and improvement. If the company does not develop and improve, it will not become competitive and leave the market.

Management of Systems should ensure coordination of development and improvement, as well as involvement at all levels. In a word—the universality of the principle.

The manager of this process is required to inspire everyone with self-development and improvement of the system around them. If every employee has a desire to develop and grow and this is supported and motivated, then the whole enterprise, as a whole system, will develop and improve. You can even offer a slogan—“Perfection is infinite, but infinity is not the limit.”

There is no need to use incomprehensible foreign words, or blindly follow everything that masters and numerous teachers say. Each company,

each system has its own way. Everywhere has their own performers, their own organizers, their own subtleties. You need to build your system and develop it using all the useful things that others have invented. Combine and apply, brush off one thing, bring in another thing. This process is endless, but since it is constant, it gives real results.

It's not about "lean technology" and "Kanban". If you start with moving equipment and workstations, with shifting tools, you can safely say that you are going the wrong way. Dragging machines or production sites should be a result of improvements, and not the cause (here we will move the machines, and you will start a new life!). Such decisions must come in due time and become inevitable, because the workshop, site, etc. (system) is already organized in such a way that it does not work in a different way. The technological process itself requires shifting machines or introducing new equipment. Whether one calls it "Kanban"¹ or "muda"² does not matter, the main thing is for all participants and employees to understand what they are doing.

Thoughtfully and consistently develop yourself and the system, and accordingly, the situation around you—this is how I see the path to success. Following this Path, the enterprise (system) is moving towards harmonious relations, harmonious work of technology, harmonious state and, therefore, greater efficiency.

D. E. Paltsev

CEO

OJSC Engineering Plant

"Forward", aircraft business

¹Kanban is a system of organizing production and supply that allows to implement the principle of "just in time"

²The Japanese word "muda" means losses, unjustified expenses and any activity that consumes resources but does not create value for the client.

“From the horse’s mouth”

Although, we are not related to the ISO 9001 standard, but the eight principles underlying it are the quintessence of the methods and ways of building a quality system for managing people and processes. This book deals with the questions of practical implementation, in my opinion, of the most important principles—MOTIVATION and LEADERSHIP! And the fact that the book is built on practical examples, makes it very valuable for top managers.

Once in the process of preparing one of the presentations, I was lucky to work with a very talented artist. The central figure in the presentation pictures was such a very funny stylized clown. So, my artist painted countless clowns, and could begin to draw them with the big toe of his right foot, then from the nose or ear, and so on. When I read “Management of Systems”, I had a feeling of a talented artist who painted a clown at all from some unthinkable point! The experiment, which began with my direct participation as the first leader, continues with another director of Pf “Aknar”. A change of manager did not change the situation with constant improvements in the company! The reader can make conclusions from this.

V. N. Matveev

Majority owner of the AKNAR group of companies, agribusiness,
Kazakhstan, Karaganda (first partnership session, June 2010)

Controversial moments

The work of G. N. Fidelman is undoubtedly very interesting, useful and extremely timely. This is not just a phrase—as a practicing manager, I must

confess that I haven't been able to remember how to work with how-to recommendations like this on the fly. However, there is, in my opinion, one controversial point. In section 16, Grigory Nosonovich suggests the principle of participatory material interest. And although we implemented this approach in our company, I didn't see much effect, at least comparable to the system of improvements. Maybe this is the specifics of our company. Let who can do better!

How to start your way and avoid copying errors even the most successful companies in the related field is the main question for the first manager. We create enterprises, companies and want to be successful and stable, constantly present in the market. How to achieve this? How to secure your future? So that your enterprise does not collapse in the next wave of the crisis. Sooner or later, at a certain stage, each manager asks himself these questions and seeks answers to them. Yes, we must take the path of development and not hinder innovative ideas—many of us understand this. And how to do all this, we ask ourselves a question? How to choose the right direction?

You can read a lot of books on this topic, extract a lot of information from them, but how can you “pull out” the knowledge you need, get the skills to use them and teach other people from this stream? And do not hope:

- *for quick results;*
- *the fact that you, as the first person, will be able to step aside;*
- *the fact that people will immediately follow you;*
- *do not flatter yourself that once having said the words: “I have implemented the system”, the process will end. It's impossible. You will implement it all your life and deal with it. The easiest way to buy a machine and start it to work. A system is a spirit, a thought, a way of life.*

The main thing is to clearly define your position, your vision of the business, its management, when you begin to implement your plans within the framework of system management, in which every issue that needs to be resolved is considered systematically.

System management is first and foremost a system of thinking of the first leader and his team, a system that is used everywhere and always, and honed at work, at home, on vacation ... But this type of thinking is developed gradually. After you begin to apply it in your work and everyday life with your personal example, your team will follow you. Thus, you create a relationship system that will continue to move into units.

System management provides detailed tools for realizing your ambitious plans. But, again, and Kanban, and 5S, and ISO, and other management ideas are approaches and tools that should “fall” on the prepared ground, on such an atmosphere in the team, when everyone is looking for the answer to the question “who is to blame?,” and “what is to blame?.” In contrast, management of systems begins with these questions, without their consideration further movement is impossible.

Although it is very difficult to abandon the system of punishments. I want to accomplish this as a manager, but I cannot yet! Our enterprise has openly proclaimed that punishment is inevitable: as they say, stole, hurt, drank—in prison! We do not depart from these principles, because we want to have people in production who do not need to be controlled and who themselves control the process. Control is an extra link in management, it does not solve the problem, but pushes it away.

Everyone knows that one of the eight principles of ISO says: you need to constantly work on improvement. It seems everyone understands it, it is not necessary to convince anyone. But how to start? And what to do? What to improve and what will it lead to? How to reflect the effectiveness in numbers, in people, in the results?

Everyone is moving in his own direction ... System management allows you to systematize approaches, build a system of thinking, and as a result, every system of problem solving, and management implemented at an enterprise produces results.

Yu. A. Korostylev

Majority owner and CEO of Elio-Ukraine, furniture business,
Ukraine, Kiev (second partnership session, October 2010)

In this book you will find many ideas, examples of how the system is being implemented improvements. But how it acts and what results it leads to is difficult to describe, because it constantly introduces new changes, new rules. The main thing—do not stop on the road.

The book sets out in a very accessible way the methodology for introducing Toyota's corporate culture in modern companies in the post-Soviet space that do not have historical experience in the management (management) of private business.

The author systematically gives answers to managers and owners of companies that have tried different fashion concepts and have not received the expected results.

What way to go, at what speed, what pitfalls are the company expecting to become a toy-like (author's term) company?

I would especially like to note that this is a methodology, and not tools, about which a lot of very useful books have been written (5S systems, kanban, SMED—quick changeovers, seven kinds of losses, etc.). It is very important—and I can say this from my own experience—that when you start changing the whole company as a system automatically, at certain stages there is a need for these tools, and their implementation will occur very quickly and along the whole front.

Speaking figuratively, then by changing the system, you begin to weave a braid, weaving multi-coloured ribbons into it—they are tools. In addition, each company itself determines when and what tool it needs to implement (weave a ribbon).

V. V. Grankin

Majority owner of Ocean Bank, banking business, Russia, Moscow
(third partnership session, January – February 2011)

What did the Improvement System Implementation Project give me?

It gave a lot, although not at all what I expected at the start.

In my head, pictures of a pioneer camp were born in a company where everyone works together, with enthusiasm, improves and invent without stopping, and business shoots up with an arrow.

It turned out something else: The system is implemented, albeit with significant adjustments to our team and situation. It works slowly, in the background. The number of improvements is reduced, but the system does not die.

And I like it all rather than not. I understand that the “fast and sharp” approach does not suit me or our company. Feels like, we got a unique tool that we use many times in different situations.

Just a few days ago, it seemed to me, a very interesting idea how the System can be used to relieve a certain internal tension and contradictions. And such a beautiful solution without this tool would be impossible.

Another important awareness for me is the result of the Project: you only have to do what you think is right and what the soul is for, and not what you are told or written to. This approach gives you the ability, confidence and strength.

I definitely began to look at life from a slightly different angle, for which I am very, very grateful.

A. Yu. Lupandin

Majority owner and CEO of TTG, advertising and production business, Russia, Moscow (fourth partnership session, October 2011)

In order for the company to start considering the possibility of creating a system of continuous improvements and a whole Toyota management system, it is important that many factors come together. To begin with, the stars must be properly located. Then you need an adept preacher. Then you should believe, and after a lot and thoughtful work, endure and believe again.

It seems to me that the introduction to the company of a program of constant improvements in almost every case should initially lead to the opening and localization of several key system problems, which almost all processes can do. In our case, this problem has become financial, namely, the lack of working capital for constant uniform and predictable financial flow planning.

Another major problem we faced was the lack of standards and regulations. It so happened that the company was developing very rapidly and did not need at a certain stage clear described standards, i.e., in fact, was an organization of entrepreneurial type in spirit, although in fact it had already outgrown this stage. Thus, starting a program of constant improvements, we realized the need to introduce standards and regulations, since it is very difficult to improve an incomprehensible and not described environment from which it is impossible to isolate the elements that need improvement ...

The need to describe the processes and create standards led to the next important and unexpected problem—the team, who very positively accepted the idea of a system of constant improvements, was not ready for formalization. What helped launch the program quickly and without resistance, at the same time, was a constraint for a more serious and serious plan of the energy process. Employees are used to working fairly freely and in the format of a conditionally controlled mess; This situation is very favourable for the introduction of all new, but strongly resists any process of formalization.

Another unexpected, but generally very predictable effect is that after the start of the program, the flow of information that flows to the head of the program increases drastically, which by all indicators is crucial for the company. It becomes clearly visible a huge number of activities that need to be carried out, and each of them can lead to significant improvements. At this point, the improvement program cannot yet be managed and dispensed with the energy supply of enthusiasts. Altogether, this leads to the fact that attention is spread and efforts are scattered, and as a result, the result is seriously affected. Due to the non-obviousness of prioritization, some processes are overlooked, receive less attention and begin to calm down, the owners of these processes are “blown away” and, in general, begin to be more sceptical about the changes being implemented.

It is very important to understand that the process that has begun will affect the entire system. It is impossible to run the program in one

department of the company and see what happens (although the temptation is very high). As a result, today we have the following:

- 1) identified a key problem;
- 2) all employees somehow “tasted” the improvement program;
- 3) we began to describe the processes and create standards;
- 4) the main efforts of company executives focused on solving the key problem;
- 5) as a result, the program of improvements to the current moment in the company in a “frozen state”;
- 6) a restart of the program is being prepared considering the experience gained (after solving the root problem).

The most important thing is to realize that after the launch of the program there will be no improvement in the way back. It is not because you will stir up the existing system. Any system in the absence of heated enthusiasm will eventually return to its former state. And not because you said something to the team and carried away something with it, but you do it all the time.

And for one simple reason: even with one glance, looking at the picture obtained as a result of creating a system of improvements, it becomes clear that this method, philosophy and style of work can take your company to a level that is extremely difficult to reach using standard, conservative management methods. And this, as it seems to me, for any leader is the strongest motivator and ... challenge.

D. E. Paltsev

General Director of OJSC Engineering Plant “Forward”,
aircraft business, Moscow (fifth partnership session,
November 2011 – February 2012)

The worst thing for a manager is the inability to influence the situation. The order was torn down, the quality declined, the production plan was not fulfilled, the equipment failed, and you feel like a victim of coincidence.

It is in such situations that you begin to frantically search and think—and how is it with others? And what about them? How do they manage to produce products in the hundreds of thousands a year, while having cooperation from more than a hundred suppliers to a product worldwide and still maintaining service maintenance?

Who seeks will always find. Therefore, having preoccupied with this issue, you conclude that it is possible to reduce costs to infinity, “save” production and move machines, but if there are no sales and service support, then there will be no place to reduce costs. Here a complex answer arises, which is not a matter of frugality or quality, but in the system. What exactly “system work with the system” (and the enterprise is the system) begins to produce results.

For the manager, in this case, the main thing is to decide to embark on this path, on the path of comprehensive system management and managing the continuous improvements that this system itself begins to create.

In my opinion, this book helps to take this step consciously, in order to avoid a lot of mistakes that are not necessary to do. And to avoid mistakes is to reduce the loss of time, which is very expensive, because life is made up of time.

I. E. Chaus

Majority owner of TIT Insurance Company, Russia,
Moscow (sixth partnership session, March – April 2012)

Our company for the first time worked with the author on the program “Alternative Management” in early 2009. By that time, the company had been working in the insurance market for almost 16 years and had long established traditions in building a company management system and approaches to business development.

At first, the ideas underlying the proposed system seemed a bit utopian to us, but we decided to experiment. The result of this experiment exceeded all our expectations.

We started with building a financial and economic model of the company's development for the next five years. This model allowed us to:

- firstly, to build a system that harmoniously considers the mutual interests of both the company's staff and the owners of the company. The main criterion for evaluating the performance of each unit and the company as a whole was profit. Each employee of the company's team makes a reasonable contribution to the formation of the company's profits, and the owners of the company are ready to share it with the staff in the form of additional bonuses for the result of each reporting period;*
- secondly, to form an economic vision and understanding of all production processes and factors affecting the financial performance of the company. And production, technology, personnel and other decisions within divisions began to be made by employees considering these factors.*

The next step was to launch a system of improvements in the company, as a result of which:

- there was a significant improvement in the psychological climate within the team. At the expense of the “team” work in cross-groups on the identified problem—the “diamond”—employees from different departments learned to negotiate among themselves, see and respect the work of employees of other departments and, most importantly, calmly, without mutual reproaches and conflicts, communicate on production topics;*
- the company has got algorithms for searching and fixing problematic “narrow” places in work, and employees have a desire to take on them and find ways to solve them;*
- top managers of the company experienced true pleasure from the fact that the team began to independently, voluntarily and effectively work with problems (“diamonds”) and offer the manager ready, well-thought-out solutions to eliminate the identified problems.*