

FIVE STEPS TO EXCELLENCE WITH MSCDPS®—A METHOD THAT COMBINES SOCIO-SCIENTIFIC ASPECTS AND LEAN MANAGEMENT

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Abstract

In a case study, the adaption and implementation of the MSCDPS® method to a Chinese market leading company is demonstrated.

The MSCDPS® method is driven by long time experience in the management of change processes to gain a lean, innovative and self-optimising organisation for medium-sized companies. Its uniqueness is the introduction of socio-scientific insights in the change management for medium-sized companies. Core factor of a successful and self-driven transformation of a whole company is the engagement and qualification of the staff. It combines the TOYOTA approach of continuous improvement and strengthening the lean cooperation of all process partners with the western procedure of revolutionary leaps [8]. With the MSCDPS®-method, the issues identified in the inventory potentials will be implemented with the involvement of employees.

Clients market position and opportunities will be evaluated and quantified: this will take into account the costs, the durability of the products, etc. Also the strengths and weaknesses of one's competitors will be investigated. The break-even point is affected by the technology used, the fixed and variable costs and the overall flexibility. After this "frontloading" the "continuous long lasting strategy to market leadership" can be defined and implemented.

Step 1 "stable, self-optimising, and sustainable processes": crucial is the development of a KAIZEN-Process. Step 2 "Establishment of a product clinic": start of the advancement process for the product, installation of a product clinic, visualisation of its results for a continuous learning of the organisation. Step 3 "Monitoring, detailed measures": visualisation of each process. Step 5 "Approval" of the pilot project, preparation to out roll additional areas": results will be a commitment of management and co-workers for self-optimising and the on-going strategy. There will be transparent, continuous long lasting processes for problem solving and improved quality, reduced costs and better performance.

Keywords

Lean management, lean production, product creation process, frontloading, change management, empowerment, communication, leadership identity

1 WHAT DOES CHANGE MEAN IN DAY-TO-DAY BUSINESS?

Conversion? Change? Reorganisation? Nowadays, not a single company that wants to be successful can ignore these questions and decisions.

Regardless of their size, turnover, and number of employees, the market requires companies to implement adaptations.

The markets determine the requirements. The requirements of clients and customer groups take centre stage in the reorganisation of processes and structures. They serve as markers for products and services. All top managements need to remain flexible and continue reorganising.

Conversion, change, and reorganisation develop into processes that are implemented in day-to-day business. In this day and age, scarcely any company can refuse to accept or ignore and postpone changes.

Conversion, change, and reorganisation—How can they be carefully planned, successfully implemented, and carried on in the long term? The MSCDPS[®] method, which was specifically developed to support change processes, is characterised by its focus on sustainability through employee participation and tailored to the possibilities and requirements of medium-sized companies.

Change occurs in small steps, step by step, and never by force. All that is needed is a lot of patience. Patience coupled with awareness of how things are interconnected and understanding of fears and emotional setbacks are indispensable prerequisites for a company to start adopting change processes.

The consulting approach combines technical with socio-scientific approaches. Its strengths lie in the availability of technical and socio-scientific expertise and expertise based on long-time experience as well as the availability of social competences such as empathy, coaching skills, and moderation. The advantage is team cooperation based on the client's problems and questions and a high level of employee acceptance of consultants.

Figure 1 illustrates the three levels that the MSCDPS[®] model encompasses: medium-sized companies gain significant advantages in quality through innovation.

2 The nine characteristics of the MSCDPS[®] model

MSCDPS[®] anticipates the so-called 4P of TOYOTA's philosophy [3] – see Figure 2. Quality is the lever for success [22] and the only unique selling point that is effective in the long term because all other product features can be copied. Quality prevents waste in the form of rework, after-sales service, and emergency actions using the most valuable company resources [18,21]. That makes quality the key prerequisite for cost leadership.

The MSCDPS[®] method, with its focus on quality, is based on nine statements.

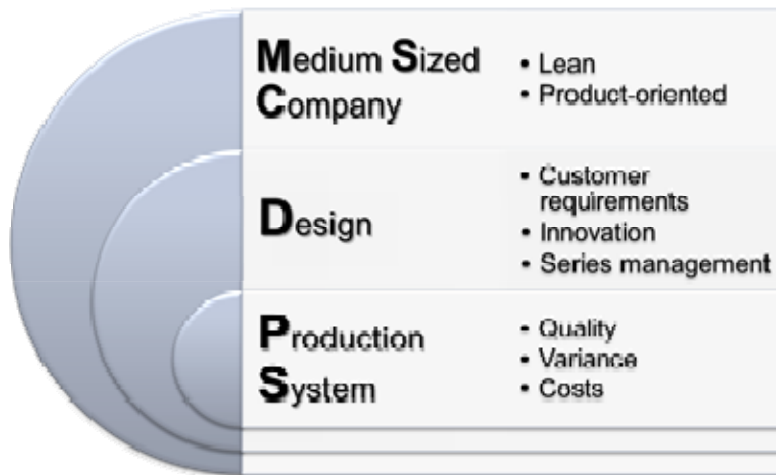


Figure 1: the three levels of the MSCDPS® model

Characteristic 1: employee participation

Differences in the success of companies can be explained by the use and qualification of their employees. Basically, people feel the need to learn and develop themselves and their environment. A company that supports its employees and encourages them to continue learning and developing themselves will continue to be innovative and successful.

Characteristic 2: customer requirements

Taking into account current and anticipating future customer requirements is a key success factor. One way to get there is by establishing lead customer care.

Characteristic 3: transparency and visualisation

Visualisation and communications are key instruments of any innovation project. Cockpits visualise key indicators and generate sustainability.

Characteristic 4: communication

Efficient operations of development teams require project space, the so-called OBEYAS (Japanese for large room). The development teams meet there at specific times to hold group meetings and to work. The visualisation of the results achieved, often with simple, handwritten, large-format charts and exhibited test or sample parts, induces close, informal communication and a strong sense of belonging to the respective development team across all the operating units involved.

Characteristic 5: executive and employee empowerment

The term empowerment refers to self-empowerment, autonomy, and self-disposal. Empowerment describes courage-generating processes of empowerment in which people start to take their affairs into their own hands. They become aware of and develop their own capabilities and use their individual and collective resources [14]. With the MSCDPS[®] method, the empowerment of the process participants is strengthened through coaching, mentoring, training, etc.

Characteristic 6: mistakes as a guide

Only in a culture in which mistakes are forgiven does innovation occur; only when risks are faced with courage can new things be created. Mistakes are departures from the accustomed, established path which can generate valuable clues. A culture of error analysis is created, for instance through statistics, in which mistakes are uncovered and improvement processes implemented that demand systematic error analyses such as TOYOTA's well-known A3 procedure [2, 3].

Characteristic 7: studying examples

Benchmarking allows for classification and evaluation of in-house capabilities. A product clinic [10] includes in-house production, for instance also by presenting successful competing products.

Characteristic 8: lean production processes

Lean production is flexible and ready for on-going improvements. Stocks breed inertia and generate financial inflexibility. Lean production operates according to the pull principle: each employee is responsible for an adequate supply of preliminary products and information, fluid processes with the lowest possible volumes, and a willingness to reduce productivity for quality and not pass on flawed products [3, 5, 18, and 19].

Characteristic 9: learning management (going and learning locally)

Successful medium-sized companies have highly competent managements. By establishing exemplary management behaviour, regular on-site visits to the place where value is created will become a corporate principle (according to the principle of going and learning locally). Only those decisions are implemented that affect the long-term development of the organisation and the product – GEMBA (see Figure 3).

3 MSCDPS[®] project targets

With the MSCDPS[®] method, companies are supported in creating an environment for their employees that encourages their creativity and so makes possible the creation of fascinating products or services.

The interplay of the stakeholders involved in the product-development process and high-level product knowledge up to and at top management levels constitutes the strength of medium-sized companies. With knowledge

and experience supported by the latest practical findings from organisational sciences, the MSCDPS[®] method contributes to the development of the company's strong points through individual adaption of best-in-class development practices—as exemplified by TOYOTA's lean development cycle (see Figure 3).

3.1 Procedure with MSCDPS[®] process, implementation

The MSCDPS[®] method starts with a careful determination of the initial situation and task-clarification phase. At the start of the project, all the parties involved have to agree on the project target and approach.

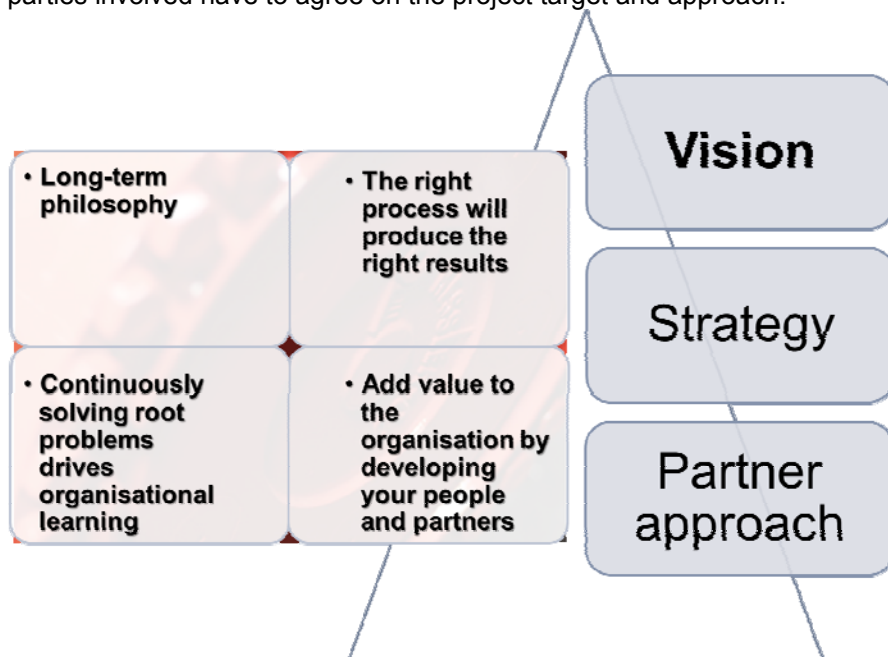


Figure 2: the four basic principles of MSCDPS[®] adopted from TOYOTA's approach [2]

Over the course of the project, the MSCDPS[®] method allows for a lot of room for intensive, target-oriented communication. The clear-cut presentation of the circumstances ensures transparency.

MSCDPS[®] projects cover a wide area, i.e., various alternative solutions are identified. Decisions carefully have been prepared and are documented. A key deciding factor is the robustness of a solution against expected environmental impacts and the development potential, which contains the preferred solution.

3.2 Consulting steps for the implementation of MSCDPS®

Companies establish processes that assure the on-going flow of required new products [10, 7]. The purchase decision of clients is the product benchmark. By incorporating lead clients in the development process, undesirable developments may be identified early on and evidence may come forth that will make the new product desirable to potential clients. On-going care and trust is what a lead-client relationship requires.

For medium-sized companies to generate scale effects in production and procurement is a seemingly on-going trade-off with the requirement of meeting organisational, customer requirements. Multi-functional solutions that are adapted to customer requirements may meet these requirements. Classic variant management requires a target-oriented organisation and is an on-going challenge for the management. Product platforms may be applied to deal with this challenge. The key task is to organise the interface and change management after selecting a minimal number of appropriate platforms.

3.3 MSCDPS® implementation in the company

The first step is to systematically query the product requirements of the clients, management, and other stakeholders through the development and innovation organisation.

This includes topics such as:

Which customer requirements are there?

- How is the incorporation organised of the customer requirements in the development specifications?
- How large a share do new developments have in the engineering capacity?
- How does the global product launch function?
- How is the development safeguarded?

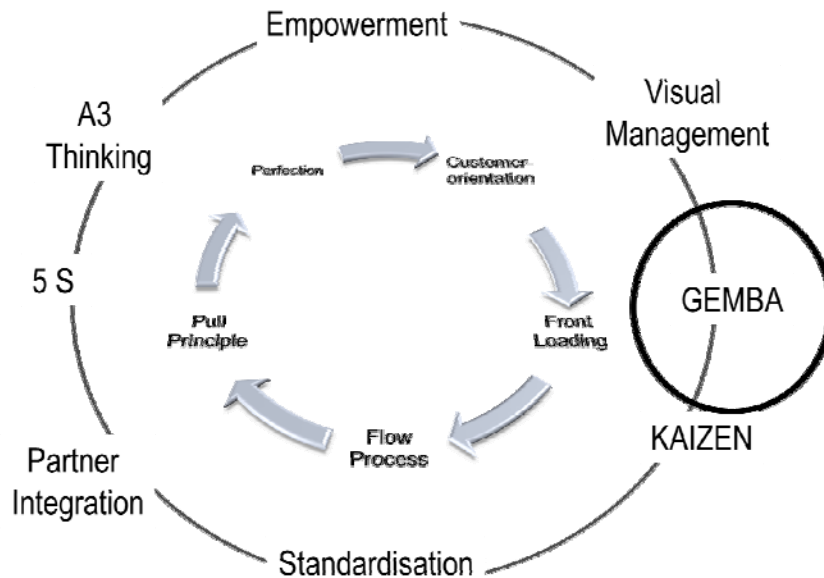


Figure 3: MSCDPS® development circles for perfection [15]

With the support of the consultant, the aim is to identify potentials and resources, develop successful strategies, filter out future requirements, and identify internal blockages and insufficient simplicity.

Analysis: taking stock of initial situation

- How is the product-development process structured?
- Inquiries into company documents, organisational chart, and overall concept
- Which competences are available locally?
- How are the lines of communications organised in the area of development?
- Taking into account site-specific requirements
- Size of business units, which locations produce for which markets?

Workshops on target clarification

The workshop is about using the improvement potentials of the participants. During the entire process, evaluations take place throughout all phases to assure reflection of the developed contents and of the group situation. The participants are informed that their opinion is called for and by working in study groups and teams, they may use the opportunity to be heard and participate in a qualified manner in the improvement, reorganisation process.

4 The five-step programme: achieving excellence in five steps

The MSCDPS[®] procedure has demonstrated its practical suitability in various application scenarios [12, 13]. As a case example, we wish to present the consulting of a Chinese commercial-vehicle company. They want to develop their structures and processes with the procedure so their products will be cleared for delivery to the European and US market and they want to develop build a sustainable organisation to be innovative and competitive on an international level.

A practical case study

As organisational developer, we supervise a change process in a German-Chinese joint venture. The Chinese company is a production company with around 2,500 employees. The principal office of the company is in the megacity Zhucheng in Shandong province. The organisational form of the company is functional: it is divided into departments such as production, marketing, development, and procurement.

As our point of departure, we implemented a company audit in April 2015, in which we analysed and queried the strategic units following the ISO TS 16949 approach.

Prior to initiating on-site operations, we conducted many coordination and preliminary talks on Skype with the company management and our Chinese-language agent from Singapore. We received a comprehensive organisational chart of the company with its individual departments and the persons responsible. In accordance with the departments we singled out for our survey, the respective qualified persons were contacted in advance, informed about our plans, and asked to participate.

To kick off the action in China, the joint-venture agreement was concluded in the presence of representatives of the provincial government. Moreover, the company management arranged for around 100 employees to be present at the preliminary meeting the first morning we were at the company. The individual areas were informed that we were conducting meetings in the company and would carry out an audit. We presented our concept, which we had initially prepared based on findings from the Skype conferences and information from Internet sources such as the company website and our professional experience, in individual, easy-to-follow steps.

At the company, we were welcomed very sympathetically and respectfully. We were met with curiosity and extreme hospitality in all respects. Immediately after the preliminary meeting, we started the actual audit work. In each case, we were accompanied by an English translator. Every evening, we analysed our results and findings and adapted our next steps to the on-site situation. Each audit activity, which included both surveys and observations at the respective workplace, was carried out as far as possible after the standardised procedure and adapted each time to the workplace conditions. We conducted the surveys as guided interviews with the executives of each evaluated department. At the site of the workplace, we

observed and recorded the machinery, environment, and working situation and conducted and documented further meetings.

It turned out to be extremely helpful that the top managers, the company director himself, and his substitute, the son of the entrepreneur, were at our disposal at all times and that they had informed their executives and the employees about our visit and our task. Some of them were present as guests at the official ceremony of the signing of the joint-venture agreement. And so, the information that a team from Germany would visit the company and conduct meetings and observations filtered through to all company levels. This, and the commitment of the employees, made our work all the easier. At no time did we experience open blockages or obstructions, though this does not mean that there were no possible hidden aspects we were not told about.

Supported by the audit results, our findings, and the experience we had gained locally, we and the company management—after holding intensive discussions on Skype—developed a programme for our overall organisational-development plan, which we will initiate in the summer of 2015.

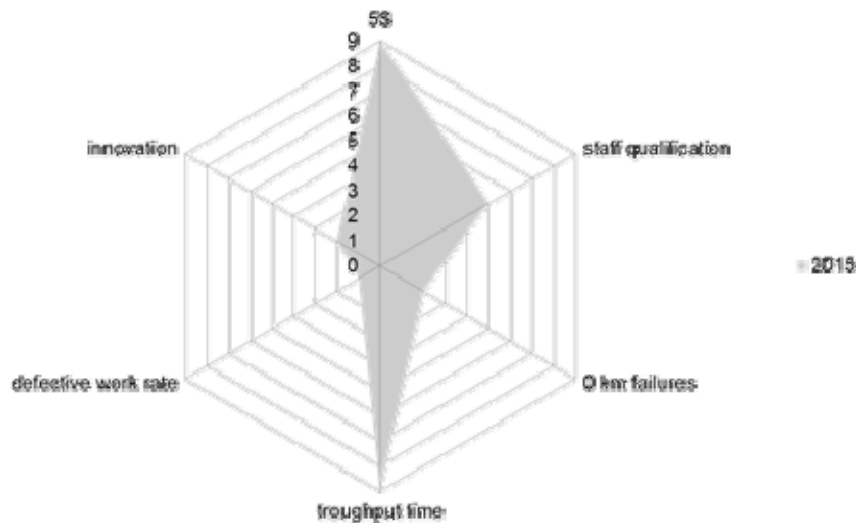


Figure 4: radar chart of corporate key data

We would like to highlight one of our audit results, the so-called radar chart with a presentation of key corporate performance data. The picture demonstrates a high level of imbalance. The key data cover the areas workplace innovation, organisation, and cleanliness as well as employee qualification, delivered malfunctioning products, production time, and amount

of rework. Major shortcomings remain, in particular with the delivered malfunctioning products, rework rate, and innovation.

5 Conclusion

Conversion, change, and reorganisation involve stress in the company. Executives as well as employees, board and managers are under pressure. Nonetheless, they are required to successfully carry on with the day-to-day operations. The one thing that has to be done is to relieve the strain and commit innovators who manage the reorganisation process and support all those involved.

In the case of the Chinese company, the MSCDPS® method was chosen to optimise the processes. Consulting without technical product knowhow and without taking into account the possibility of employee participation will not generate the required concrete success.

Overall, the practical application of the combined consulting approach, which combines technical and socio-scientific knowledge and experience, has proved its worth.



Figure 5: assembly of axles according to the continuous-production principle

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