MCPD System: Removing 5 Main Barriers to Transforming Companies

The MCPD system was created by **Dr Alin Posteucă** in over 20 years of ongoing research.

Achieving the target profit and other expected results of companies by using a consistent and harmonious transformation of resources in outputs requires a uniform business vision across the company.

The expected results of companies are:

- External results (for customer satisfaction) are: productivity, quality, costs, deliveries, environmental protection and innovation;
- Internal results (for employee motivation) are: safety and health at work, morale and lifelong learning.

Ensuring target profitability by continually raising awareness and improving the cost behind losses and waste in every product family process is the primary goal of Manufacturing Cost Policy Deployment (MCPD). MCPD ensures the necessary profitability for any kind of industry: production, services and trade.

Often the uniformity of business vision is hindered by some barriers obstructing outputs in line with what could be achieved with current facilities, real market needs or what was planned.

Therefore, from the perspective of the need for profitability, the main five barriers to the systematic and systemic improvement of the current transformation approach addressed by the MCPD system are:

1) The Lack of Real Managerial Commitment

Current state:

Active and visible continuous participation of top and middle managers in establishing and supporting vision, mission and strategic improvement directions, and maintaining a continued desire for a change to the better of the current production method is still an important drawback for many management teams.

MCPD ensures the necessary profitability for any kind of industry: production, services and trade.

Often, the support for improvements only exists at the declarative level, as the connection between the improvements and the concrete financial results in the balance sheet is not exactly perceived. In the absence of awareness that systematic and systemic improvements ensure an acceptable level of revenue and expenditure and, implicitly, an acceptable level of operational profit, building a culture of improvement is considered more or less a fad. In this context, companies often lack a vision, a mission, concrete goals, and robust plans for long-term improvements in product volumes (especially capacities synchronised to market requirements) and unit costs, in tandem with the company's business plan, even if they "make full use of the best methods, techniques, and tools for improvement."

In this context, management teams sometimes do not have a level of strategic and comprehensive understanding of the improvement impact on the entire organisation in the short, medium, and especially long term. The main consequences of the lack of this real managerial commitment is the lack of confidence in the ability to achieve consistent improvements, especially due to the failures of past improvement projects, lack of prioritisation of improvements, inability to measure in advance the impact of the improvements in money, and, consequently, the lack of resources necessary for the improvement (especially the time needed for people to participate in improvement projects).

In fact, managerial teams are focused almost exclusively on performing current activities and less on long-term health of the manufacturing system by making improvements. Managers are not fully aware that continuous development and implementation of improvement scenarios and the master plan also help them to achieve short-term performance targets.

Necessary state:

a) Identifying real profit growth directions (directly from current and future processes of product families) and understanding the real role of productivity in ensuring long-term health of the company to generate the necessary profit for business continuity;

b) Designing and implementing the multi-annual master plan of productivity to ensure the target profit regardless of whether the sales are on a rising or falling trend;

c) Identifying and addressing the strategic key points of costs from the main business processes – bottleneck processes;

d) Quantification of losses and waste in costs and drastic and continuous reduction of those costs; and

e) Maximising the internal profit contribution to supporting the multi-year profit plan (manufacturing cost improvement through productivity; targets and means deployment for manufacturing cost improvement).

2) Resistance to Change

Current state:

The continuous adaptation of manufacturing companies to changing market needs and the continuous support for the transformation of the current production method require an awareness that improvements and, implicitly, ongoing change are part of the current and future life of the company. Not a few times, maintaining a new standard resulting from an improvement project lasts for a short period of time, or it is not even fairly communicated to those who should follow it in their daily tasks.

The top management must continuously provide all those involved with answers to questions such as: Why is the change

Therefore, to accept change as a normal and everyday state, there is a need for continuous reconciliation between the strategic approach and the operational approach.

implemented? What is the problem now? Why is the change needed now? Why it is us who must make the change and not others?

Therefore, to accept change as a normal and everyday state, there is a need for continuous reconciliation between the strategic approach (top-down approach or desires, including the need for cost

reduction) and the operational approach (bottom-up approach or possibilities, including real opportunities for Manufacturing Cost Improvement, MCI), using a participatory management (catchball process) based on managerial coordination according to predetermined targets. In the absence of this continuous reconciliation between desires and real possibilities, resistance to change occurs especially among medium sized managers, even if top managers and operators often desire to shift the current production method to the better.

In fact, the easier acceptance of a change takes place if those who will have to accept the change (the new standard) participate in its design (the kaizen and/or kaikaku improvement projects), and if any change has a clear strategic motivation and all necessary resources are provided.

Necessary state:

a) Full involvement of those who change the new standards (rules) from the beginning of change (in defining and understanding issues);

b) Allocation of resources for improvement;

c) Implementation of effective communication – visual management;

d) Total involvement of managers in supporting change;

e) Development of training programs appropriate to current or future needs;

f) Robust plans for knowledge transfer (using One Point Lesson – OPL techniques);

g) Development of knowledge management (including for skills and expertise);

h) Comprehensive understanding of cost vs. benefits reasoning from improvements – before improvements are made and linked to company profit strategy;

i) Analysis of bottleneck processes to determine the dynamic behaviour of losses and waste in processes and the associated costs in order to establish relevant targets and means to achieve these targets;

j) Implementation of the annual improvement budget for existing products based on the quantified behaviour of the critical costs of losses and waste;

k) Implementation of the multiannual improvement budget for new products; and

l) Implementation of the annual cash improvement budget.

(3) The Lack of Total and Continuous Involvement of All Departments and Beyond

Current state:

The participation in making unnecessary resource use improvements is not just the "duty" of the production department and the direct support departments (especially the maintenance, quality, and engineering departments), where production takes place, but of all departments and all people involved (including from outside the company). Identifying means to reach predefined targets of different Key Performance Indicators (KPIs) to meet manufacturing companies' strategies is the task of each department and of every person involved in the company's activities.

So, companies develop an annual action plan for systematic and systemic improvements, including manufacturing cost improvement (MCI), fully involving all available workforce and all available facilities, as the fluency of the company's core flow is more important than the activities of any department or employee (including any manager).

Necessary state:

a) Depending on the competition pressure, it is necessary to continuously connect the improvements with the company's short, medium, and long-term strategies for each competitor, for each customer, for each current or future product, for each supplier, for each process/work centre, sometimes for each activity (such as set-up activity), for each equipment/line and for each department and employee;

b) Reconciling top-down and bottom-up for annual manufacturing cost improvement (MCI) goal for each product family cost;

c) Continuous measurement of losses and waste KPIs for all main processes of each product family cost;

d) Development and implementation of scenarios for manufacturing cost improvement for the main processes of each product family cost;

e) Developing the annual action plan to improve unit costs through productivity and ensure the level of profit needed for long-term harmonious development of the company; and

f) Designing and implementing the annual list of actions and activities to improve unit costs for the process costs each product family.

(4) Reactive Managerial Behaviour

Current state:

The real value of a manager is his/ her ability to accurately plan the business to prevent potential problems from occurring.

The real value of a manager is his/ her ability to accurately plan the business to prevent potential problems from occurring.

The continuous monitoring of tangible and especially intangible performance sometimes determines managers to make decisions at a time to quench "fires." This alert state can take much of a manager's time, and they "have no time" to make proactive and/or preventive decisions. The preponderance of such a managerial style to "solve the problems" at a time does not contribute to sustaining a culture of consistent improvements and, implicitly, to reducing and/ or eliminating unneeded resource consumption. Often such a reactive managerial behaviour has deficiencies in substantiating decisions based on actual data and facts and creates a state of confusion and continuous stress in companies.

The continued connection of the necessary improvements to the long-term strategies of the company requires increasing the level of stability and standardisation of the production flow, and the use of a preventive and proactive decision-making style to meet the company's long-term goals.

Necessary state:

a) Synchronised continuous coordination from all company hierarchy levels based on targets and means deployment for manufacturing cost improvement (MCI) to support the real stake in productivity and quality (ensuring an acceptable level of long-term profitability);

b) Defining and preparing the departmental and individual action plans and, based on them, developing the annual training plans;

c) Identifying sources for determining training needs in connection with current and future strategic and operational issues;

d) Development and implementation of the initial and continually updated annual training plan for operators, supervisors and managers to meet the KPIs improvement goals (in particular KPIs of losses and waste at process level); and

e) Developing a desirable contextual managerial identity (management branding – MB) at the management team level to continuously improve managers'

behaviours and ensure a creative atmosphere for smaller or larger improvements.

5) Incorrect and/or incomplete implementation of systematic (kaizen) and systemic (kaikaku) improvement projects.

Current state:

One of the main effects of the four barriers mentioned earlier is the level of effectiveness (incorrect) and efficiency (incomplete) of implementing improvement projects. The purpose of the improvements is to implement solutions to the root causes of problems, or solutions for the undesirable effects of a current state from processes visible at KPIs targets, at goals achievement and successful company strategy implementation.

Often the members of the improvement projects teams have difficulties in understanding and precisely measuring the impact of improvements in current and future target performance of the manufacturing flow, the connections to company strategy, often lacking a coherent annual action plan. At the same time, many manufacturing companies are still focusing on systematic and systemic improvements almost exclusively in the production area (although some still have problems with a deep understanding of current processes) and, as a result, face multiple contaminations of these improvements, as they do not have a Supply Chain Management (SCM) approach.

In fact, improper implementation of improvement projects is the result of poor understanding and/or misapplication of improvement methodologies, tools, and techniques, including PDCA (Plan–Do–Check–Act) methodology and/or DMAIC (Define, Measure, Analyse, Improve and Control) methodology, which leads to insufficient skills to make improvements and to continuously support the necessary creativity. The incomplete implementation is the result of a lack of correlation of improvement projects with the company's strategy and especially with the company's strategy and profit plan, especially the internal profit plan (profit from continuous cost improvement – MCI).

When it is not possible to scientifically predetermine the potential earnings in money of future systematic and/or systemic improvements, any cost of improvement implementations may become too high to be accepted.

In fact, improper implementation of improvement projects is the result of poor understanding and/or misapplication of improvement methodologies, tools, and techniques.

Necessary state:

a) Focusing on total lead time (Supply Chain Management – SCM: supply lead time; manufacturing lead time; delivery lead time);

b) The interdepartmental organisation of kaizen and kaikaku projects to meet KPIs targets and especially those related to unit cost reduction (cost of losses and waste - CLW and critical cost of losses and waste - CCLW);

c) The strict implementation of kaizen and kaikaku projects on the basis of an annual and multiannual plan and the anticipation of the necessary results to be achieved by a certain date; and

d) Ensuring all resources in time (materials, people and working times).

The transformation of manufacturing companies through the Manufacturing Cost Policy Deployment (MCPD) System is done in 3 phases and 7 steps, as follows:

Phase I: Manufacturing Cost Policy Analysis

Step 1: Context and Purpose of MCI

Step 2: Annual MCI Targets and Means

Phase 2: Manufacturing Cost Policy Development

Step 3: Annual Manufacturing Improvement Budgets

Step 4: Action Plan for MCI Means

Phase 3: Manufacturing Cost Policy Management

Step 5: Engage the Workforce to Achieve the Annual MCI targets

Step 6: MCI Performance Management

Step 7: Daily MCI Management

In conclusion, only the correct (consistent and effective) and full implementation (to achieve the company's strategies/internal profit plan or MCI, efficiently) of the improvement strategies can help sustain a robust and continuous transformation of the current manufacturing method in order to cope with a competitive global market. Specifically, profitability through productivity for consistent competitiveness.

Dr Alin Posteucă is a management consultant in profitability, productivity, and quality and managing partner of Exegens Management Consultants (Romania). Prior to this position, he held top management positions in manufacturing and service companies. His recent research includes the development of the MCPD system.