

# Management Control & Reporting System For Sustainability Organization Manufacturing Industries In Surabaya

Tri Wahjoedi, Wulandari Harjanti, Maya Ida Kesumawatie

**Abstract:** This paper explores the contribution that can be given by the Management Control & Reporting System (MCRS) to the sustainability of organizations, especially in manufacturing industries that have many levels for reporting and how organization use MCRS in various way to drive strategic reform and trigger organizational change. The companies that have many levels of reporting and control will experience many difficulties in their operations to achieve good performance if they don't have good system management. Overlapping information, unclear flow of information, follow-up problems that are unstructured and sustainable are some of the problems that will arise if the management of the system is not good. In this paper specifically analyze the implementation of MCRS in the company P with the aim of highlighting the role played by the management and implementation of the MCRS. The research method carried out is through field observations, comparing various activities with their achievements and interviews with employees from various levels of positions ranging from low level of employees to till high level. Evidence added on this problem by showing the relevant role played by MCRS and management that significantly influences organizational performance both technical and motivational levels. With Strong support and involvement of top management, implement MCRS method, well-established action-learning training system, apply Information system, and implement MCRS culture have resulted in significant improvements in company performance. In principle this MCRS model is believed to be able to be implemented in other manufacturing organizations by adjusting the number of reporting cycles in accordance with their complexity and interesting for further investigation of their implementation in other fields, especially in the services sector and in different model of organizations.

**Keywords:** MCRS, Management Control, Reporting System, Sustainability

## 1 INTRODUCTION

Entering the era of increasingly fierce business competition, making each company strive to strengthen its organization to be able to compete and keep sustainability of company. Starting from strengthening existing resources, recruiting good employees from the lowest level to managerial levels that have the potential to excel to improve their operational processes. It cannot be denied that in particular the reporting process, both the reporting of operational processes and work results play an important role in bringing the organization to run better. Without a good and integrated reporting system, making the top leadership as decision maker difficult and requires a long time before making strategic decisions for the organization, even the decisions taken can actually make the organization misguided which will have a negative effect on operational and even profits for company. A good performance reporting system should be able to show tiered involvement from the lowest level employees, indicating the ongoing review process and improvements that have been carried out jointly.

Research is needed to understand the role of management control and reporting system (MCRS) in facilitating management activities that can support achievement organizational goals (Gond et al 2012; Perez et al. 2007) In this paper, present a case of comprehensive Management Control & Reporting System (MCRS) application in a manufacturing company which have many layers for reporting, through the illustration of an overall MCRS implementation, to furnish an insight into the potential impact of MCRS in the manufacturing side about to handle of operational. The paper is organized as follows. Section 2 presents the overall MCRS implementation of Company P and how MCRS is used to guide operational in what is referred to as Company P. Section 3 Presents The Benefits Of Project. Section 4 Consists Of A Discussion Of The Key Factors Of Successful MCRS Method; The Last Section Presents The Major Conclusion Of The Paper.

## 2. MCRS IMPLEMENTATION AT 'COMPANY P'

Diagnostic MCRS use occurs when manager compare performance with target to identify the exceptions and critical deviations from the plan (Abernethy and Brownell, 1999; Simons 1995)

### 2.1. MCRS in 'Production System House'



Fig. 1. MCRS in Production System House

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The implementation of MCRS in a production house system is on its foundation. Shortest lead time, highest quality, and lowest cost targets will only be achieved if the foundation and pillars of the production house are correct in its implementation and even become an organization culture.

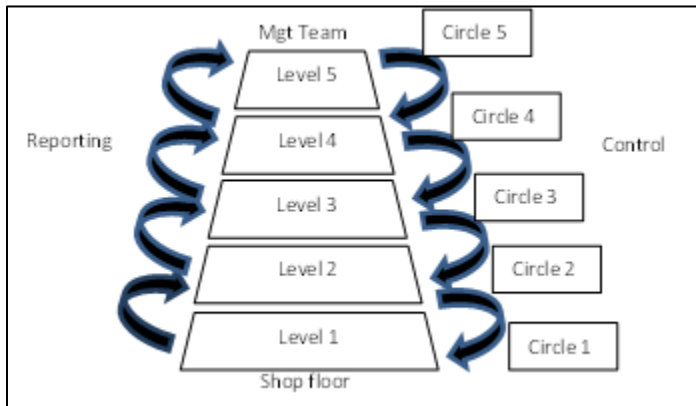
**2.2. MCRS objectives**

**Increase sustainable performance results by:**

- a). Driving adjustments at the lowest level in the organization
- b). Enabling predictability performance and results
- c). Structural approach for maintaining and improvement of industrial performances
- d). Establishing effective structures / meetings to monitor manufacturing performances

Increased sustainable results through behavior changes in processes, management systems, and people.

**2.3. MCRS Circle**



**Fig. 2. MCRS Circle (5 levels) in manufacturing industry**

In figure 2, there are two management flows from lower level employees to the top level, namely the management reporting flow and the management control flow. The management control hierarchy will start from the highest level to the lowest level, while the management reporting hierarchy will start in the opposite way, from the lowest level to the top level

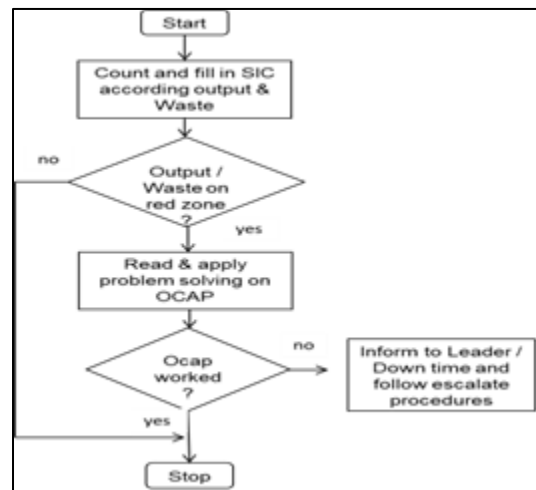
**MCRS meeting schedule.**

Event	Name	Schedule	Participant	Location
Circle 1 (review each group shift)	Review each production/process line	Every hours	Operator & setter	SIC Board
Circle 2 (daily review)	Production team review	Beginning of shift	Shift Leader, Quality leader, operators, setter, downtime	Team communication board each line
Circle 3 (daily review)	Department team review	Daily	Unit manager, Quality Manager, Maintenance Manager, Shift Leader, Team	Communication cell each department

			Leader	
Circle 4 (daily review)	Operation team review	Daily	Operation Manager, Unit Managers	Operations team communication board
Circle 5 (daily review)	Plant Manager review & control (audit)	Daily	Plant Manager, Operation Manager, HR Manager, Plant Controller, Supply Chain Manager, Quality Manager	Plant Manager communication board & schedule department/ functions (audit/gemba walk)

**2.4. MCRS Flowchart**

**2.4.1. Circle 1 & 2 (Operator & shift Level)**



**Fig. 3. MCRS flowchart circle 1&2**

In figure 3 explain the MCRS flow chart for circle 1 and circle 2, starting with Short Interval Control (SIC) implementation. This SIC is intended to control KPIs on circle 1 (operator level) & circle 2 (unit leader). In this SIC recording of problem solving is done to overcome the achievement of KPI based on the direction of the existing out of control reaction (OCAP). If the operator cannot handle the problem, he reports to the unit leader (in this case running the escalation procedure).

**Activities:**

- a). The Key operator update the control chart (process control/reject level) per hour, if the data out of control, they will take actions or escalate to line leader/engineer.
- b). Group Meeting in front of performance board
- c). Line leader base on whole line performance to update the Andon system and escalate issues of injury case, reject issue, breakdown machine issue, and quality issue (there have

green/yellow/red expression to show different problems)

### System of SIC (Short Interval Control)

- 1) It enables to adjust on time and to realize your goal
- 2) SIC helps spot deviations from the norm and take the right action to adjust

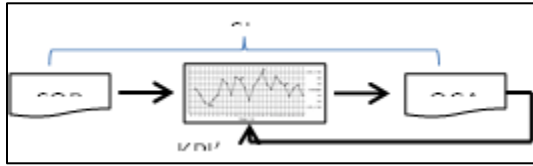


Figure 4. System of SIC

#### Activities:

- 1) A standard operating procedure (SOP) is a set of step-by-step instructions compiled by an organization to help workers carry out complex routine operations. SOPs aim to achieve efficiency, quality output and regulations.
- 2) Out of Control Action Plan (OCAP) is a guidance for problem solving
  - Check SOP's & Reset
  - Execute OCAP's step by step
- 3) A Key Performance Indicator (KPI) is a measurable value that demonstrates how effectively a company is achieving key business objectives. Organizations use KPIs to evaluate their success at reaching targets.

### 2.4.2. Circle 3 (Production Unit Level)

#### Step of MCRS flow on circle 3:

- 1) Check safety condition and actions
- 2) Check 3C (form daily case register) day before
- 3) Check result day before (output/ reject/ quality)
- 4) Define actions for today and put in form daily case register

#### Activities:

- a). Production Unit (PU) meeting in front of PU communication cell as per Term of Reference (TOR)
- b). Gemba Walk & Control Audit for 6S, machine condition, SIC implementation
- c). Take care escalate issue from circle 2 & escalate issue to circle 4
- d). Define actions and put in form daily case register

### 2.4.3. Circle 4 (Operation Level)

#### Step of MCRS flow on circle 4:

- 1) Safety & Example Kaizen
- 2) Message from Management Team (MT)
- 3) Review previous 3C
- 4) Review performance & audit findings
- 5) LEAN
- 6) Confirm new 3C

#### Activities:

- a). Operation Meeting in front of Operation communication cell as per TOR

- b). Operation Control Audit
- c). Take care escalate issue from circle 3 & escalate issue to circle 5
- d). Define actions and put in form daily case register

### 2.4.4. Circle 5 (PMT Level)

#### Step of MCRS flow on circle 5:

1. Safety & Example Kaizen
2. Message from Plant Manager
3. Review previous 3C
4. Review performance
5. LEAN
6. Confirm new 3C

#### Activities:

- a). MT daily meeting in front of MT communication cell as per TOR
- b). Gemba Walk & Operation Control Audit
- c). Take care escalate issue from circle 4
- d). Define actions and put in form daily case register

### 2.5. MCRS implementation maturity

#### 2.5.1 MCRS maturity matrix

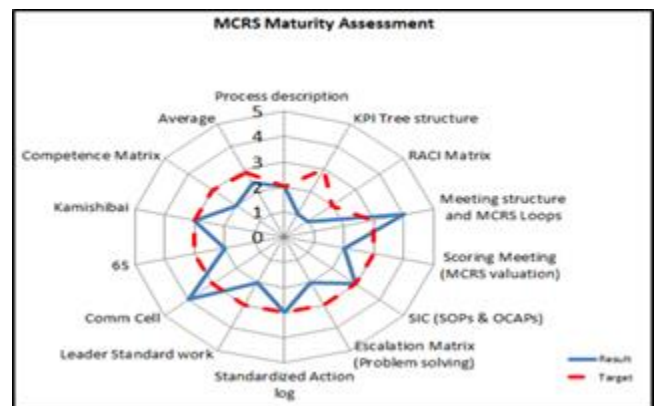


Fig. 5. Maturity matrix

In figure 5 explain the achievement of MCRS maturity implementation in company P. The average of achievement still below target was score 2.5 instead of Target score 3. There are some aspects that should be improved are 6s implementation, Leader Standard Work, Escalation Matrix (Problem Solving), Scoring Meeting (MCRS implementation), RACI matrix, and KPI tree structure.

#### 2.5.2 Action to improve MCRS implementation:

- 1) Standardized Dept. Communication Board (layout, content & close circle)
- 2) Display KPI's at Continuous Improvement board and use as action reference
- 3) Standardized Continuous Improvement Board (layout, content & close circle)
- 4) Standardized Team Communication Board
- 5) Physically standardized Communication Cell
- 6) Physically standardized Continuous Improvement Board

- 7) Strengthen MCRS with discipline by control audit
- 8) Set Up Escalation procedure include all relation with SOP and OCAP
- 9) Review progress

### 3. BENEFIT OF MCRS IMPLEMENTATION

- 1) The lowest level in the organization have better ownership for driving adjustments
- 2) Performance and results more predictable
- 3) Approach is more structural for maintaining and improvement of industrial performances
- 4) Meetings are more effective in monitoring manufacturing performances
- 5) Increased sustainable results through behavior changes in processes, management systems, and people.
- 6) The result of company performance as follow; Business Score Card

### 4. DISCUSSION

The key factors of successful MCRS method mainly are:

#### a. Strong support and involvement of top management

Because MCRS is a top-down management activity, commitment of top management becomes a key successful factor of MCRS implementation. Commitment does not only mean strong support by providing visible resources for MCRS, but also means personal involvement or participation in reviewing & controlling MCRS implementation. In Company P, top leaders act as the top level of reporting the performance and actions, which can make sure that each level of organization in line with to the company strategy and guarantees resources input in the improvement process.

#### b. MCRS method

MCRS method is one of the key elements to maintain sustainable implementation of management control & reporting. In Company P, the MCRS method involves all levels of employees in the company. The reporting structure from the lowest level to the highest level provides complete information to help management make the right decision. While the control of the activities of the highest management to the bottom level will be able to direct the achievement of optimal performance.

#### c. Well-established action-learning training system

The uniqueness of MCRS implementation is based on meeting reviews in all levels. In the review meeting the commitment to the recommendations for corrective actions recorded in the 3C (daily case register form) is the result of problem solving approach and very good for learning process of the team.

#### d. Information system

Information system can also be regarded as an important element of MCRS implementation. Successful MCRS implementation needs reliable data collection of current performance condition and analysis, which were no structure before MCRS was introduced into Company P. Along with MCRS deployment, Company P also introduced centered information systems and upgraded its intranet system. The well-established information system provides online data

collections of performance condition each department. And MCRS also developed its continuous improvement activity and put it on board of communication cell for instant monitoring of progress. MCRS success story sharing is also realized via intranet.

#### e. MCRS culture

For managers at each level, such idea as making use of MCRS to promote operation performance and increase company competition is sent out to each management area. All the managers know very well the core of MCRS management and provide support and resources to MCRS implementation. For engineers and quality management employees, such idea as making good use of data in MCRS implementation to achieve quality management innovation is popularized. All of them consciously use the theory and MCRS review to raise the efficiency and quality management level of MCRS implementation in Company P. For the basic level employees, such idea as using MCRS short internal control to reduce poor quality and cost value added is practicable. MCRS method becomes an essential part of their daily work.

### 5. CONCLUSION

Systematic and sustained applications of MCRS in Company P is, however, not as widely known. This paper has outlined the initiatives in the promotion of MCRS implementation in one manufacturing industry organization, namely Company P. A significant MCRS implementation at this company is also presented. It can be appreciated from the accounts given here that MCRS has become a prime mover in a company's drive for competitiveness, and the aligned structure review, problem solving, action taken offer unprecedented opportunities for analytical tools with technical problem-solving. What follows is a changing company culture that results from the behavior of employees and managers alike, ultimately realizing the goal of a learning organization. Business leaders with organizational capability, project management techniques and habits of performance review & gemba walk have emerged along with MCRS method. In fact, they are the ones that planted the seeds for reform and increased competitiveness of the company – this has certainly more significant and far-reaching implications than what many have routinely seen in the MCRS roadmap.

### 6 ACKNOWLEDGMENT

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