
CHAPTER 5



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CONCLUSION

Conclusion and Recommendations

In the Sri Lankan context the industrial management is more concerned about outcomes. However they do not pay adequate attention to the required knowledge. In other words, application of concepts like TPM, are done just by attending to some introductory seminar or by referring to very short booklets. In many occasions nobody in the organisation fully understand what these concepts really mean. Therefore ultimately the concepts are diverted in various directions adding only costs and difficulty in maintaining.

By analyzing the approaches and difficulties in the industries in Sri Lanka, the researcher has addressed the management weaknesses such as negligence in implementing TPM. A model has been developed in order to facilitate the application of TPM. This model addresses the important aspects in implementing TPM such as management commitment, organizational culture, education and integration to the main process etc.

TPM on the other hand does not address only the maintenance aspect of machines. It is a total concept in order to irradiate all kinds of loss incurred in the production floor. Therefore only maintenance departments cannot practice it. However, unfortunately many organizations do not realize this and take the TPM application in a light manner. Therefore there are lots of failures than success stories. The model developed in this report guides the management in the proper channel so that the ultimate achievement will be rewarding by itself in rupees and cents for the organisation.

In order to implement any system certain pre-requisites such as cultural alignments, management commitments and strategic approach etc are vital. However these issues are taken lightly in general. The model developed stresses these aspects and well addressed.

In TPM there are no standard packages readily usable to any organisation. Each organisation will have to develop their own methodology in order to successfully implement TPM. Therefore the model suggests formulating the required formats with sufficient knowledge about TPM. The developed formats could be used to an specimen segment of the organization as trial application and required re-adjustment could be done at that stage. Finally the well-rehearsed system could be diversified throughout the organisation

This thesis only describes the implementation process. It does not cover the knowledge about TPM. Therefore it is recommended that in applying this model one should gain knowledge about TPM from a suitable book specially written to explain TPM application or through an external resource.

Further Research Areas

Due to the limitations of time this research did not cover the industrial sector to a very deep level. It is recommended to study this in depth by selecting a bigger sample and validate this model. It is also recommended to study about the relationship between

production and maintenance and the difficulties in maintaining equipments in Sri Lankan industries.

1. As culture plays a major role in application of TPM or similar concepts it is possible to develop a specimen questioner, which can describe the culture. By this the management will find it easy to analyse culture.
2. A detail study could be done inorder to find out the problems faced by the production and maintenance departments in connection to maintenance of equipments. A suitable questioner may be developed for this purpose in the Sri Lankan context.



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Appendix 1

Field survey questions on application of TPM

1. Turnover of the Company?
2. Total number of employees?
3. How many employees are involved in Maintenance work?
4. What is the 5S management structure?
5. Who is leading the 5S team?
6. Successfulness of 5S activities.
7. CEO's contribution on 5S activities.
8. What is the maintenance structure?
9. Is there kaizen suggestion system?
10. How much satisfied with the maintenance work?
11. What are the data available about machine performance?
12. How do the machine failures identified?
13. What is the operator's roll on machine performance?
14. What are the difficulties faced by the maintenance team?
15. What are the kinds of maintenance systems adopted?
16. What is the organizational culture?
17. What is the overall % of capacity utilization?
18. What is the maintenance cost as a % of total factory (production) cost?
19. Awareness of Total Productive Maintenance (TPM).
20. Opinion on applying TPM in the organization.
21. What are the achievements by applying TPM? (If TPM is in practice)



Appendix 2

Organizational culture

Company A

	Feature	Assessment
1	Innovation and risk taking Neutral → Encouraging	1 2 3 (4) 5
2	Attention to details Depth of analysis of matters Low → High	1 (2) 3 4 5
3	Outcome orientation Methods → Focus on → Outcomes	1 2 3 (4) 5
4	People orientation Concern on people when decision making Less → More	1 2 3 (4) 5
5	Team orientation Work performance Individual oriented → Team oriented	1 2 (3) 4 5
6	Aggressiveness Easy going → Aggressive	1 2 (3) 4 5
7	Stability Maintain status quo → Change oriented	1 2 (3) 4 5

Appendix 2

Organizational culture

Company B

	Feature	Assessment
1	Innovation and risk taking Neutral → Encouraging	1 2 3 4 (5)
2	Attention to details Depth of analysis of matters Low → High	1 (2) 3 4 5
3	Outcome orientation Methods → Focus on → Outcomes	1 2 (3) 4 5
4	People orientation Concern on people when decision making Less → More	1 (2) 3 4 5
5	Team orientation Work performance Individual oriented → Team oriented	1 2 3 (4) 5
6	Aggressiveness Easy going → Aggressive	1 2 3 (4) 5
7	Stability Maintain status quo → Change oriented	1 2 3 (4) 5

Appendix 2

Organizational culture

Company C

	Feature	Assessment
1	Innovation and risk taking Neutral → Encouraging	1 2 (3) 4 5
2	Attention to details Depth of analysis of matters Low → High	1 2 3 (4) 5
3	Outcome orientation Methods → Focus on → Outcomes	1 2 3 (4) 5
4	People orientation Concern on people when decision making Less → More	1 2 (3) 4 5
5	Team orientation Work performance Individual oriented → Team oriented	1 2 3 (4) 5
6	Aggressiveness Easy going → Aggressive	1 2 3 (4) 5
7	Stability Maintain status quo → Change oriented	1 2 3 (4) 5

Appendix 2

Organizational culture

Company D

	Feature	Assessment
1	Innovation and risk taking Neutral \longrightarrow Encouraging	1 2 3 (4) 5
2	Attention to details Depth of analysis of matters Low \longrightarrow High	1 2 3 (4) 5
3	Outcome orientation Methods $\xrightarrow{\text{Focus on}}$ Outcomes	1 2 3 (4) 5
4	People orientation Concern on people when decision making Less \longrightarrow More	1 2 3 (4) 5
5	Team orientation Work performance Individual oriented \longrightarrow Team oriented	1 2 3 4 (5)
6	Aggressiveness Easy going \longrightarrow Aggressive	1 2 3 (4) 5
7	Stability Maintain status quo \longrightarrow Change oriented	1 2 3 (4) 5