

FACTOR CLAVE: LA PARTICULARIZACIÓN DEL MODELO DE DESPLIEGUE DEL TPM

KEY FACTOR: PARTICULARIZATION MODEL FOR TPM DEPLOYMENT

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The TPM (Total Productive Maintenance), which is limited to the philosophy of Lean Management, aims to increase the company's productivity by reducing efficiency losses during manufacturing. The TPM enables organizations to know the efficiency with which they are working and the losses of the production process, and along with the application of this methodology improve the team's efficiency and the company competitiveness.

The TPM sustainability allows the improvement of the results of the company throughout the years of TPM application, since it is not a short-term project, but rather requires some implementation stages that have to be consolidated for the organizational changes to become part of the company culture. It is then that this methodology gives the expected results of continuous improvement allowing the company to be positioned in the competitive world of production. Meaningful results are obtained after 2 or 3 years of implementation, which influences that many companies start this process, but for different reasons, they fail to consolidate the project or do not do it efficiently.

The great challenge in some companies to achieve the implementation and sustainability of the TPM is that standard methods not adapted to their production process are used, making the monitoring of the project too general so that there is a risk that the management of the company does not visualize the correct evolution or the stagnation of the TPM project in an agile way, and hence the adequate decisions are not made to ensure the progress of the project.

This article aims to present the importance of particularizing for each company as well as the implementation model that facilitates TPM deployment and sustainability. There is literature on different models, but none in a pyramid-like shape as the one presented in the article referred to [1]. Being a model that allows avoiding some of the critical and endemic factors of failure, such as lack of experience, lack of project monitoring, or lack of staff motivation, identified in companies that fail to achieve TPM implementation and sustainability of the [2]. It also makes it possible to avoid other cases where the main problems, as well as the barriers, have been the lack of strategic objectives, the lack of alignment of resources with the TPM objectives, the lack of training, or the lack of communication between management and workers [3].

To visually verify the progress of the project in each area, the status of each pyramid block is identified using a traffic light color code (red, yellow, and green), allowing a quick visual audit of the project status promoting the development of the action plan to move from one level of implementation and maturity of the TPM to another. Each block is one of the TPM pillars.

This particularized model of TPM deployment in a pyramid-shape applying Lean tools and methodology that is easy and agile to review will be a key factor in the success of the TPM implementation and sustainability. This model goes over all TPM aspects and incorporates the Lean methodology as well as the tools, this model does not do it in a general way but by developing specific tools that the company identifies as key, being a TPM model aligned with the company strategic objectives and allowing a new approach in the Maintenance strategy that is no longer a mere support process, but becomes a strategic process to meet both current and future challenges of the organization.

Other key points identified are the management involvement, the training, and qualification of the staff, the display of indicators from the strategic level, shown in visual panels, and following up in the Daily Meeting and/or improvement meetings, the OEE must be visual and shared, the application of 5S and SMED techniques to improve the MTTR, MTBF, and OEE, preventive maintenance carried out with a visual standard, structured proactive maintenance to give a quick response to repair faults, predictive maintenance within a Lean Management and TPM project, and finally an organizational system with structured follow-up meetings at different organizational levels to promote continuous improvement and continuous feedback.

REFERENCES

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