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Lean Management as an Element of Responsible Management in Manufacturing Companies

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Introduction and research aim

Lean Management is widely used to reduce waste, improve processes, and make better use of resources (Pierli et al., 2026). However, its role goes beyond operational efficiency. It can also support responsible management by improving decision-making, encouraging employee involvement, and creating better working conditions (Terradillos et al., 2026). The main challenge is to ensure that Lean tools lead to lasting organizational improvements, particularly when organizations face leadership and implementation barriers (Machingura et al., 2025).

The aim of the study was to identify the perceived benefits and barriers of implementing Lean Management in manufacturing companies, with a particular focus on decision-making effectiveness, resource use, and organizational factors.

Research question: To what extent does Lean Management support responsible management in manufacturing companies, and what barriers limit its effectiveness?

Research methods

The study employed a quantitative, descriptive and exploratory research design and was conducted between October and December 2025 using a survey approach based on computer-assisted web interviewing (CAWI).

Purposive sampling was used to recruit employees of manufacturing companies involved in operational and tactical decision-making. Of the 102 survey participants, 83 met the inclusion criteria and were included in the final analysis.. The study incorporated the perspectives of shop-floor employees, specialists, team leaders, and managers. Participation was voluntary and anonymous.

A researcher-developed questionnaire addressed the application of Lean tools, their perceived impact on decision-making effectiveness and resource utilization, and barriers to implementation.

Data were analyzed using descriptive statistics, including frequency distributions, percentages, and Likert-scale ratings. This approach enabled the identification of the most commonly applied Lean practices, the perceived outcomes of their use, and the key organizational constraints.

Results and discussion

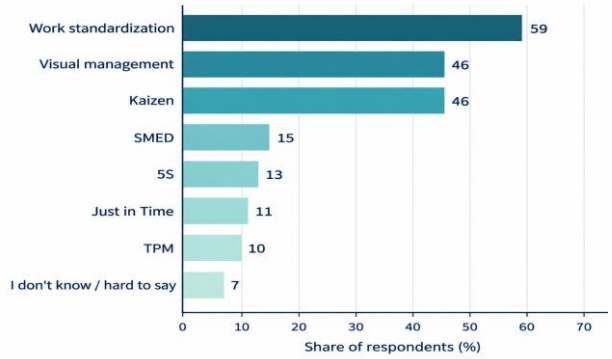


Fig. 1. Most frequently used Lean Management tools in manufacturing companies.

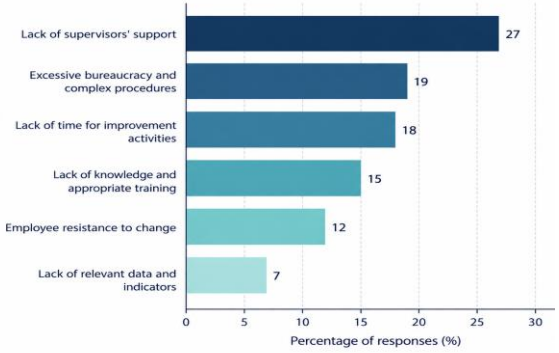


Fig. 2. Perceived impact of Lean Management on decision-making effectiveness.

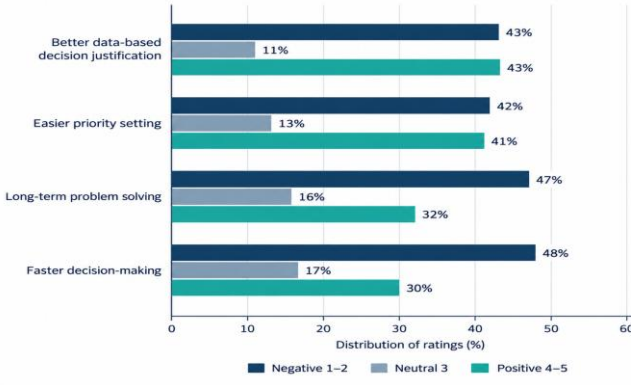


Fig. 3. Perceived impact of Lean Management on the efficient use of organizational resources.

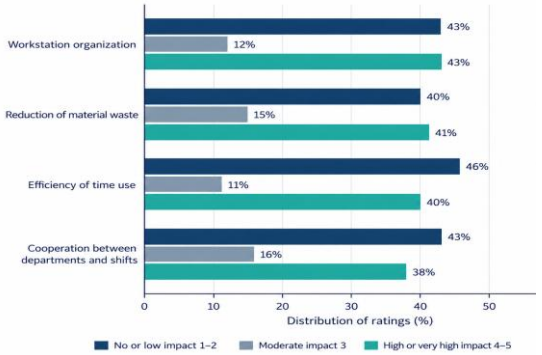


Fig. 4. Key barriers to Lean Management implementation in manufacturing companies.

The results show that work standardization, visual management, and Kaizen are the most frequently reported Lean practices. However, the perceived benefits for decision-making and resource use vary considerably. The findings suggest that organizational and leadership barriers may limit the effectiveness of Lean implementation.

Conclusions

The findings highlight a gap between the use of Lean tools and their perceived organizational benefits. Improvements in decision-making and resource utilization remain uneven, while insufficient supervisory support and excessive bureaucracy are among the main implementation barriers.

Responsible Lean Management requires more than individual tools. Supportive leadership, employee involvement, and continuous improvement are essential for building long-term organizational benefits.

Study limitations: Purposive sampling and self-reported data limit the generalizability of the findings. Environmental and economic outcomes were not directly measured.

References

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