Continuous Improvement Tools & Techniques

Improvements can be achieved at any level by using a number of tools and techniques that aim to search for sources of problems, losses and deviations, and then find ways to reduce them [i]. The basic principle of Kaizen is to use multiple tools to solve problems in order to identify and solve work problems. This leads to the improvement reaching a new benchmark with each solution to a problem. To consolidate the new benchmark, the improvements achieved must be standardized [ii]. The most important tools mentioned in previous studies can be explained through the following table:

Table (1): Continuous improvement tools

Study Name	Continuous improvement Tools
Terziovski and Sohal, (2000: 547)	General Tools. Problem Solving Tools: (Workplace Organization (5S)/ Visual Management Tools/ Standardizing Tools/ Creativity Tools (Idea Generation)/ Quality Mapping Tools/ FMEA/ QFD/ Problem Identification/ Old 7 Quality Tools/ New 7 Quality Tools). Motivation Tools.
Hyland et al, (2000: 120)	Workplace organization (5S) / Visual management tools / Standardizing tools / Creativity tools (idea generation) / Quality mapping tools / FMEA / QFD / Problem identification / Old 7 Quality Tools / New 7 Quality Tools.

Kovach et al, (2011: 90)	Workplace organization (5S)/Visual factory, VSM, Standard work, SMED, Poka Yoke, Kanban, Hejunka/New 7 Quality Tools/Old 7 Quality Tools.
Singh and Singh, (2013: 81-82-89)	Workplace organization (5S), Visual management (VM), TPM, Kanban, P-M analysis (phenomenon mechanism), Quality maintenance, Jidoka, Poka Yoke, Standard work, Value stream mapping VSM, 7W (waste).
Sanchez and Blanco, (2014: 996)	Workplace organization (5s), Visual management tools (VM tools), Standards/frameworks, Six Sigma, Information technology, Benchmarking, Statistical control, Material requirements planning, Just in time (JIT), Customer managed inventory, Taguchi methods, PCDA cycle, Simulation, Enterprise resource planning, Kanban, Quality function use (QFD), Value stream mapping (VSM), Feedback, FMEA, CAM/CAD, SMED, Seven quality tools, Non-conformance, Embedded systems, Customer relationship management, Process map, Poka Yoke, Production leveling, Pull system, Brainstorming, Proposal systems, Automation.
Falak et al, (2020: 1297)	Workplace organization (5s), Lean CI, Kaizen, Poka Yoke, Jidoka, Kanban.
Jevanesan et al, (2021)	Workplace organization (5s), Visual Management Boards (VM boards), DMAIC cycle, TQM, LSS.

Source: (Al-Farhan, Mohannad. (2022). The role of continuous improvement technique on organizational learning process: An applied study on the electrical appliances manufacturing sector. Master's thesis, Faculty of Commerce - Menoufia University)

Continuous improvement tools and techniques can be applied in different work environments. Here, managers must take into account many factors such as: product design, the chosen process, and the degree of standardization in the organization. Accordingly, they can choose the best methodology to implement improvements successfully [iii]. The company does not necessarily have to follow a specific path for continuous improvement, as it can move from one tool to another without the need to master the previous tools and techniques with complete success. In order for the organization to achieve improvement goals, it must choose to implement tools that are compatible with the capabilities of its employees. Here, managers must choose tools that employees can understand and use [iv]. Studies have indicated the most

commonly used tools that are simple steps to start the journey of continuous improvement, including: organizing the workplace (5S) and visual management boards (VM boards), which were mentioned repeatedly in previous studies; These simple tools are associated with important benefits that are highly concentrated within the organization, such as employee motivation and internal communications [v]. Continuous improvement techniques that include both Lean and quality improvement methods encourage behaviors that embody learning, which results in the creation of knowledge, which is what organizations need to support efforts to improve productivity and quality [vi].

References

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[i] Bhuiyan, N. and. Baghel, A. (2005). OPCIT, p761-762.

[ii] Terziovski, M. and. Sohal, A. (2000). OPCIT, p540.

[iii] Singh, J. and. Singh, H. (2013). OPCIT, p111.

[iv] Hyland, P. et al. (2000). A comparison of Australian firms and their use of continuous improvement tools. The TQM Magazine, 12(2), p118-123-124.

[v] Jevanesan, T. et al. (2021). OPCIT, p442.

[vi] Kovach, J. et al. (2011). The use of continuous improvement techniques: A survey-based study of current practices. International Journal of Engineering, Science and Technology, 3(7), p90-93.

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