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EXPLORING PREMISES AND CHALLENGES IN THE REALISATION OF CONTINUOUS IMPROVEMENT IN MANUFACTURING ENTERPRISES

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Purpose: The purpose of this article is to identify the underlying premises behind improvement initiatives as seen by selected managers, to examine the challenges they observe during the realisation of continuous improvement activities, and to explore their expectations regarding the improvement of CI execution.

Design/methodology/approach: The study employs a qualitative case study methodology, based on structured interviews conducted with production directors, CI managers, and shift supervisors. The research was carried out in two manufacturing companies with a long-standing commitment to continuous improvement.

Findings: The research results demonstrate that the managers under study have different perspectives on the identification of premises, perceived problems, and expectations for organisational support, which correlate with their roles within the organisation. A commonly reported issue is the declining employee engagement in CI activities over time, influenced by various factors and events, as well as insufficient support for the production department from other departments in the realisation of CI.

Research limitations/implications: This research is exploratory in nature and should be considered a pilot study. The limitation of study to two case studies naturally restricts the generalisability of the findings. Further research is required across a broader group of manufacturing firms and should also be extended to organisations in other sectors – such as services or retail – for the purpose of comparative analysis.

Practical implications: Organisations engaged in continuous improvement must focus on sustaining these initiatives over time. It is essential to identify and address emerging challenges and identify the expectations of managers creating the conditions for CI practices. This requires ongoing refinement of existing systemic CI approaches, with particular emphasis on collaboration across organisational units and effective coordination of improvement efforts.

Originality/value: The research offers a perspective on the studied issues of continuous improvement from the viewpoints of selected managers involved in creating the conditions necessary for its realisation.

Keywords: continuous improvement, lean management, kaizen, CI drivers, CI barriers.

Category of the paper: Research paper, Case study.

1. Introduction

The Toyota Production System (TPS) revolutionised manufacturing management in the automotive sector nearly a century ago, propelling Toyota to the forefront of the industry and inspiring other companies to redesign their own production and management systems. The success of Toyota's approach can be largely attributed to the consistency and continuity of its improvement efforts, embedded in the TPS through the principle of continuous improvement – known in Japanese as *kaizen* and commonly referred to as CI. Toyota's philosophy, experience, and achievements have served as a source of inspiration for many other organisations, prompting the development of their own complex management systems built around the principles of continuous improvement.

The effective realisation of continuous improvement relies on the engagement of all members of an organisation in the search for efficiencies and the resolution of problems. Achieving this, in turn, requires the establishment of suitable conditions that enable such engagement. While numerous studies have sought to identify key success factors for implementing and sustaining CI, awareness of the barriers and challenges that can hinder its realisation is equally crucial for achieving the desired outcomes.

Theoretical and empirical research on CI success and failure factors has predominantly focused on systematic literature reviews, the development of "CI success factor" models, or analyses based on narrow viewpoints (e.g. Arpin et al., 2023; Chaple et al., 2021; O. Connor, Cormican, 2022; McLean et al., 2015). Less attention has been paid to studies that explore the perspectives of different stakeholders within organisations. A broader, more nuanced understanding – particularly one based on in – depth qualitative research and comparative analysis of responses across stakeholder groups – seems both necessary and valuable. Notable examples of such multi – perspective research include studies by Arnaiz et al. (2022), Cano et al. (2017), Garcia-Sabater, Marin-Garcia (2011), and van Beers (2022).

The review of relevant literature therefore reveals a research gap in this area – one that this study aims to address.

The aim of this article is to identify the drivers behind improvement initiatives from the perspective of various stakeholders involved in creating the conditions for CI, as well as the challenges they encounter during its implementation. The study is guided by the following research questions:

- What are the underlying reasons for initiating continuous improvement activities within the company?
- What challenges are perceived by the stakeholders during the implementation of CI?
- What expectations do these stakeholders have regarding the organisation's support for improved CI implementation?

To address these questions, the study employed a qualitative case study approach, using interviews as the primary data collection method. Interviews were conducted with production directors, CI managers, and shift supervisors in two selected manufacturing companies. These investigations should be considered pilot research.

This article is structured as follows: introduction, theoretical background, research methodology and characteristics of the studied companies, presentation of the research findings, and a concluding summary.

2. Theoretical Background

The concept of continuously improving organisational performance has long been recognised, but as noted in the introduction, it was popularised in the last century by Toyota. Continuous improvement (*kaizen*) became a core element of the Toyota Production System (TPS) – a management framework that gave Toyota its competitive advantage and allowed it to become a global leader in the automotive industry. Optimisation of activities, processes, and work in accordance with Toyota's philosophy is achieved, among other things, through the elimination of waste (*muda*), enabling cost reductions, a focus on quality, and the resolution of problems arising within the company.

Such efforts must not be one – off or ad hoc; they should be continuous and systematic, embedded in an unending cycle of improvement in line with Deming's PDCA (Plan–Do–Check–Act) cycle, carried out through the joint efforts of employees and managers at all organisational levels.

TPS has served as a model and source of inspiration for many companies. However, as practice has shown, management concepts rooted in Japanese cultural traditions must be adapted to local cultural conditions and the realities of the labour market in order to be effective in other regions. Research on the effectiveness of continuous improvement initiatives has typically focused on identifying so – called "critical success factors for CI realisation" (e.g. Arnaiz et al., 2022; Cano et al., 2017; Formento et al., 2013; Gonzalez Aleu, van Aken, 2016). Less attention, however, has been paid to the factors that hinder the realisation or sustainability of CI efforts (e.g. Baier, 2024; Garcia-Sabater, Marin-Garcia, 2011; McLean et al., 2015; Sanchez-Ruiz et al., 2019).

The success of improvement activities also depends on a clear understanding of their necessity and the ability to base decisions on sound and rational premises. This issue is highlighted, among others, in the recent work of Baier (2024).

This leads to a critical question: what challenges in CI realisation are identified by members of the organisation, and to what extent are they aware of the reasons behind improvement initiatives? While the ultimate responsibility for achieving strategic goals lies formally with top

management, this does not absolve other stakeholders involved in organisational processes from responsibility. It is therefore both valid and intellectually valuable to explore how various stakeholders – those who contribute to shaping the conditions for CI – perceive the drivers and limitations of CI, what expectations they hold, and whether there is alignment in how these factors are identified and assessed.

3. Research Methodology and Characteristics of the Studied Companies

To achieve the objective of this article, original research was conducted using structured interviews as the primary data collection technique. Interviewees were selected from among production directors, continuous improvement (CI) managers, and shift supervisors. This selection aimed to capture the perspectives of various stakeholders who contribute to creating the conditions necessary for the realisation of continuous improvement.

The study was carried out in two manufacturing companies with a long – standing history of practising CI. At the request of the interviewees, the companies remain anonymous and are referred to here as Company A and Company B:

- Company A is a foreign owned enterprise operating in the food industry. Its first production facility was established in the 1940s. The company currently employs around 400 people and has been pursuing CI for 13 years.
- Company B is a foreign owned enterprise in the automotive industry, founded in 2006.
 It currently employs over 350 people and has been engaged in CI activities for 19 years.

The limitation of the study to two case studies naturally imposes restrictions on the generalisability of the findings. The research should therefore be considered exploratory in nature. Data collection took place in November and December 2024.

4. Research Findings

4.1. Company A

4.1.1. Rationale for the Realisation of Continuous Improvement

Production Director

The respondent emphasised that continuous improvement within the company is largely driven by external pressures. "The company must be more price – competitive, which requires cost optimisation". Maintaining market position means adapting to the evolving needs of current clients and competing for new ones. Additional external drivers include growing quality

requirements and pressure from ownership to improve performance. As for internal factors, the director pointed to the significant improvement potential of the workforce — many employees have long tenure and in — depth knowledge of the organisation, along with numerous ideas for improvement. However, there was previously no "channel" to facilitate the flow and implementation of these ideas.

CI Manager

The manager explained that the initial driver behind implementing CI was the ambition to "move towards becoming a European or global – level organisation, where CI is a standard". Over time, however, it became evident that these efforts truly delivered benefits, and now CI is part of the company's everyday operations. Employees recognise that CI helps in solving problems, delivers tangible results, and supports their day – to – day work.

Shift Supervisor

"Thanks to CI, we are constantly developing and seeking new solutions to make our work more efficient, more effective, and less burdensome. We don't accept the status quo". According to the respondent, CI enables employee development and unlocks the potential within people. "We're currently in an employee – driven labour market. CI allows us to offer more than just a job – we can also offer growth and motivation, not just money".

4.1.2. Barriers to the Realisation of Continuous Improvement

Production Director

The director pointed out challenges related to bottom – up employee engagement in CI activities. A considerable portion of employees submits a *kaizen* suggestion only once or twice a year, typically because "the boss says they have to," with more active engagement usually coming from more senior staff. Younger employees tend to be less involved. "I often have to push the topic forward myself". He also noted a shortage of leadership figures willing to say, "Okay, I'll take responsibility, organise a team, and move this forward".

He highlighted a lack of support from the HR department: "There's a clear absence of an HR Business Partner (HRBP) who understands the needs of production and could support CI efforts". Further, he reported difficulties securing support from other departments – particularly Maintenance and Logistics – when it comes to delegating staff to *problem solving* (PS) teams. At times, even communication at the managerial level proves challenging. "What gives me hope is that frontline staff, who work directly with production, do seem to understand these needs".

CI Manager

The manager expressed concern over occasional stagnation in *kaizen* submissions in certain production areas, attributing this to declining employee engagement. There is also limited participation in problem – solving teams, mainly due to time constraints. Another recurring issue is the implementation of suggestions – often hindered by weak influence of team leaders on key individuals such as operators or maintenance staff.

A further obstacle is the lack of formal authority over employees from other departments, which necessitates "going through their supervisors". This is compounded by a lingering silo mentality: "There's still a lack of understanding that we are one organisation and should all be working together" — with the Maintenance department again cited as an example of weak collaboration during PS initiatives.

He also echoed concerns about the lack of HR support: "I believe we need an HRBP who could take over certain responsibilities like training or recruitment. That way, the CI department wouldn't have to invest time in those areas". Staff turnover also poses a challenge, as new, often younger employees are less engaged in CI efforts.

Shift Supervisor

The supervisor voiced frustration over poor collaboration with other departments – particularly Maintenance – noting a lack of feedback on joint CI initiatives. "It's about being able to inform my team about what's going on, to show them we're taken seriously. Otherwise, it's demotivating – for them and for me".

Another issue is the lack of time to properly support young leaders, train employees, or ensure effective communication. "There's constant pressure to meet production targets – that's always the top priority. We're constantly dealing with urgent matters".

Finally, the respondent was concerned about the general lack of awareness regarding the importance of problem – solving, the value it offers, the methods involved, and the absence of systemic solutions to support it.

4.1.3. Expectations Regarding Required Support

Production Director

The respondent expects support from the company president in encouraging other departments to engage in CI activities and in ensuring accountability for the realisation of those efforts. He emphasised the need to standardise the idea submission system across departments.

Additionally, the director expects the HR department to provide support in training leaders in so – called "soft skills" such as team management and communication (e.g. providing feedback), and to appoint an HR Business Partner who understands the realities of production.

He also sees a need to make the *kaizen* submission process more attractive – specifically, by developing a new digital tool or application appealing to younger employees. He noted the necessity to enhance the methodology and tools used for problem – solving initiatives.

CI Manager

The respondent expects more time and financial resources to be allocated to the promotion and popularisation of CI. He believes the suggestion system must be revitalised, including an increased budget for *kaizen* initiatives and for rewarding employees involved in CI.

He also anticipates greater involvement from the HR department, including relieving the CI department of responsibilities such as recruitment. He expects better availability of personnel from other departments – such as Maintenance – who are needed to support CI activities.

"If there's a problem with implementing an idea, we later have a problem with maintaining motivation".

He stressed the need for more direct involvement of managers from various departments – especially in interdisciplinary problems – such as Logistics, Quality, and Maintenance. This includes "going to the shop floor, observing the problems firsthand, talking with employees, and providing support".

Shift Supervisor

The supervisor expects feedback from support departments such as Maintenance regarding the timing and progress of CI – related activities.

From her direct supervisor, she expects feedback on the feasibility of resolving specific issues and support in forming PS teams. She stressed the need for dedicated time for communication and employee training – "There should be time for that in the schedule".

In her view, shift supervisors should have an influence on shaping the suggestion system, because "they and their teams are the ones directly involved in realising the system, and they are responsible for motivating employees to submit suggestions".

4.2. Company B

4.2.1. Rationale for the Realisation of Continuous Improvement

Production Director

The respondent emphasised that a production system such as theirs cannot function effectively without continuous improvement. "Changes happen constantly – new products are introduced, supplier – related variables shift, and these changes force us to adapt our production processes. We have to keep up, and CI tools help us do that". He noted that the price of their components has dropped significantly in recent years, necessitating cost savings in order to remain competitive. "The world is moving forward, and we need to move with it. Improving processes, solving problems, and systematising activities help us keep pace with change. I can't imagine working without CI".

CI Manager

According to the CI manager, continuous improvement is an embedded element of the company's operational philosophy. "CI helps us function – it shows us what can be improved and how we can continuously enhance our processes, products, and even our own work. It supports our daily activities and contributes to our development as individuals".

Shift Supervisor

The shift supervisor identified several drivers for CI in their organisation: improving workplace safety, enhancing work organisation, maintaining high product quality, and achieving production performance targets.

4.2.2. Barriers to the Realisation of Continuous Improvement

Production Director

The main issue, according to the director, is the "lack of sustained employee engagement". While some employees remain actively involved in CI, others – especially those with longer tenure – appear to have become disengaged. Younger employees are often difficult to motivate. "At some point, people run out of ideas", he noted. "We need to constantly refresh the suggestion system and reward schemes to keep them inspiring".

He also pointed to superficial problem – solving practices: "Problem – solving teams sometimes focus on short – term fixes rather than asking why the problem occurred in the first place. They concentrate on symptoms, not causes". Despite repeated explanations, this mindset persists, mainly due to the daily pressure to meet production targets. "The goal is for today to go well, and everyone is focused on that".

CI Manager

The CI manager reported organisational barriers, particularly at the interface between departments. "Even when employees are willing to help, we often have to go through their supervisors first – because they may already be assigned to other tasks". She highlighted that she doesn't have the authority to delegate CI – related tasks directly to employees and must seek approval instead.

Further challenges include a lack of time to encourage employee participation in CI activities, difficulty in reviewing *kaizen* suggestions, and limited capacity to provide timely feedback, especially when submission volumes are high.

Shift Supervisor

The supervisor cited time pressure as a key obstacle, especially during peak production periods. "We don't have time to train employees, to communicate properly, or to support problem – solving initiatives when order volumes are high".

Another concern was the lengthy implementation time for some *kaizen* suggestions, often due to the complexity of issues or limited access to necessary resources. In his view, this can lead to employee demotivation.

4.2.3. Expectations Regarding Required Support

Production Director

The director expressed hope that CI workshops led by the CI manager could help process and utilise the vast amount of data and information gathered. He also sees value in off – site training sessions, which may offer a fresh perspective and generate new ideas by stepping away from the regular work environment.

He expects the Maintenance department to take a more hands – on approach to addressing root causes of problems – not "solving them from behind a desk".

CI Manager

The CI manager would like direct supervisors to play a more active role in motivating their teams and to make it clear – particularly to more resistant employees – that CI is not the responsibility of the CI department alone, but of everyone in the organisation.

She hopes for greater support and understanding from other department heads, particularly since she has no dedicated team and relies on staff from other areas. This includes improving communication between managers when assigning employees to cross – functional CI projects. She also called for IT support in improving the *kaizen* submission system.

Shift Supervisor

The shift supervisor believes that periodic off – site training for production workers and front – line managers would contribute significantly to CI knowledge and awareness.

He also hopes for continued in – house training on CI practices, regular leadership development sessions focused on CI, and better communication and collaboration between departments. Finally, he called for more dedicated time in the schedule for operator workshops – and for those workshops to be held more frequently.

5. Discussion and Conclusions

The interviews conducted reveal that the organisations studied hold varying perspectives on the drivers, challenges, and expectations surrounding the realisation of continuous improvement (CI) – perspectives which are closely aligned with the respondents' respective roles within their companies. Their responses support the formulation of the following conclusions:

Drivers:

- All respondents demonstrated awareness of the reasons behind the realisation of CI activities in their organisations.
- Production directors tended to adopt a broader view, placing greater emphasis on external drivers.
- CI managers and shift supervisors primarily focused on internal motivations and organisational dynamics.

Reported challenges:

A frequently mentioned issue was the gradual decline in employee engagement with CI activities, influenced by time and various internal and external factors.
 This highlights the need for efforts to sustain – or at times, revive – employee motivation. Similar findings have been reported by Brajer-Marczak (2021), van Assen (2021), and Yang et al. (2024).

 Another common challenge was the lack of effective collaboration with departments intended to support production, especially the Maintenance department.

- Shift supervisors expressed concerns over the lack of time to properly engage in CI related initiatives, citing high pressure to meet production plans and KPI targets as the main constraint.
- CI managers, on the other hand, identified a lack of formal authority to influence staff involved in CI activities and to ensure their follow – through. They also noted insufficient support from line managers.

Expectations:

- Respondents across both companies expect greater collaboration and support from departments that are meant to assist production – most notably, the Maintenance department.
- In Company A, all respondents also expressed a clear need for more support from the HR department, including the introduction of an HR Business Partner (HRBP) who understands the specific needs of production.
- CI managers from both companies hope for stronger influence from line managers over employees involved in CI, as well as improved communication and cooperation among departmental leaders.
- Production directors and CI managers alike highlighted the need for new approaches to engage both younger employees and longer – tenured staff who may have become disengaged.

The research objective set out in this article has been achieved. The study successfully identified the drivers behind CI, the challenges encountered in its realisation, and the expectations related to improving its execution – thus answering the research questions posed.

It must be noted, however, that the conclusions presented are based on two manufacturing case studies, and the findings should be regarded as pilot in nature. Future studies should aim to include a larger and more diverse sample of manufacturing companies. It would also be valuable to expand the research to service and retail sectors in order to carry out a comparative analysis. Broadening the range of respondents – e.g. to include team leaders, operators, or Maintenance supervisors – could further enrich the findings.

The results of this study indicate that the drivers of CI reported by respondents are thoughtful and grounded in a rational understanding of organisational needs. CI initiatives are not undertaken merely in response to "management trends", but rather stem from genuine challenges, emerging opportunities, and the necessity of resolving operational problems.

Respondents identified a variety of challenges depending on their role in the organisation. These findings are consistent with those of Baier (2024), Cano et al. (2017), and van Beers et al. (2022), who also noted role – specific perceptions of CI barriers.

The results also highlight the importance of collaboration and coherence across the organisation in the realisation of CI. Respondents repeatedly emphasised that managerial support – at all levels – is a critical enabler of successful CI. This aligns with prior research highlighting the role of leadership in CI, including studies by O. Connor and Cormican (2021), Holmemo et al. (2023), and Oon et al. (2021).

Several respondents also noted the importance of "refreshing" current CI systems – revisiting older ideas and exploring new approaches to meet changing circumstances (e.g. engaging younger employees). As one respondent put it, "the world is changing, and CI needs to change with it". Adopting this perspective appears essential to sustaining CI over the long term and ensuring its continued relevance and effectiveness.

References

- 1. Aripin, N.M., Nawanir, G., Hussain, S., Moshood, T.D. (2024). Towards sustainable lean success: a systematic literature review on critical failure factors. *Technological Sustainability*, *Vol. 3, No. 3*, pp. 332-353, doi: 10.1108/TECHS-11-2023-0042
- 2. Arnaiz, F.D., Alvarez, V., Montequin, V.R., Cousillas, S.M. (2022). Identifying critical success factors in continuous improvement projects in a steel company. *Procedia Computer Science, Vol. 196*, pp. 832-839, doi: 10.1016/j.procs.2021.12.082
- 3. Baier, R. (2024). *Difficulties implementing continuous improvement initiatives in SMEs* (Master's thesis). Lisbon: Universidade Católica Portuguesa, Management. Retrieved from: http://hdl.handle.net/10400.14/45276, 23.01.2025.
- 4. Brajer-Marczak, R. (2024). Zaangażowanie pracowników w doskonalenie procesów biznesowych. In: P. Rogala, J. Martusewicz, A. Wierzbic (Eds.), *Doskonałość biznesowa istota i modele* (pp. 115-125). Wrocław: Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, doi: 10.15611/2024.73.4.08
- Cano, M., Viza, E., Kourouklis, A. (2017). Critical success factors for implementing continuous improvement approaches within public sector organisations. In: 20th Excellence in Services University of Verona International Conference: Conference Proceedings (pp. 131-146). Retrieved from: http://sites.les.univr.it/eisic/wp-content/uploads/2018/07/20-EISIC-Cano-Viza-Kourouklis.pdf, 24.01.2025.
- 6. Chaple, A.P., Narkhede, B.E., Akarte, M.M., Raut, R. (2021). Modeling the lean barriers for successful lean implementation: TISM approach. *International Journal of Lean Six Sigma*, *Vol. 12*, *No. 1*, pp. 98-119, doi: 10.1108/IJLSS-10-2016-0063
- 7. Formento, H., Chiodi, F., Cusolito, F., Altube, L., Gatti, S., (2013). Key factors for a continuous improvement process. *Independent Journal of Management & Production*, *Vol. 4, No. 2*, pp. 391-415, doi: 10.14807/ijmp.v4i2.76

8. Garcia-Sabater, J., Marin-Garcia, J.A. (2011). Can we still talk about continuous improvement? Rethinking enablers and inhibitors for successful implementation. *International Journal of Technology Management. Vol. 55, No. 1/2*, pp. 28-42, doi: 10.1504/IJTM.2011.041678

- 9. Gonzalez Aleu, F., Van Aken, E.M. (2016). Systematic literature review of critical success factors for continuous improvement projects. *International Journal of Lean Six Sigma*, *Vol.* 7, *No.* 3, pp. 214-232, doi: 10.1108/IJLSS-06-2015-0025
- 10. Holmemo, M., Ingvaldsen, J., Powell, D. (2023). Beyond the lean manager: Insights on how to develop corporate lean leadership. *Total Quality Management & Business Excellence*, *Vol. 34*, *Iss. 1-2*, pp. 1-13, doi: 10.1080/14783363.2021.2022468
- 11. McLean, R.S., Antony, J., Dahlgaard, J.J. (2015). Failure of Continuous Improvement initiatives in manufacturing environments: a systematic review of the evidence. *Total Quality Management & Business Excellence, Vol. 28, Iss. 3-4*, pp. 219-237, doi: 10.1080/14783363.2015.1063414
- 12. O. Connor, D., Cormican, K. (2022). Leading from the middle: how team leaders implement lean success factors. *International Journal of Lean Six Sigma*, *Vol. 13*, *No. 2*, pp. 253-275, doi: 10.1108/IJLSS-11-2020-0194
- 13. Oon, F.Y., Aziati, A.H., Esmadi Abu, A.S. (2021). Business Excellence, Leadership and Lean: A Systematic Literature Review. *International Journal of Business and Society*, *Vol. 22, No. 1*, pp. 332-345, doi: 10.33736/ijbs.3178.2021
- 14. Sanchez-Ruiz, L., Gomez-Lopez, R., Blanco, B. (2019). Barriers to effectively implementing continuous improvement in Spanish firms. *Total Quality Management & Business Excellence*, *Vol 31*, *No. 13-14*, pp. 1409-1426, doi: 10.1080/14783363.2019.1699783
- 15. van Assen, M.F. (2020) Training, employee involvement and continuous improvement the moderating effect of a common improvement method. *Production Planning & Control*, *Vol. 32, Iss. 2*, pp. 132-144, doi: 10.1080/09537287.2020.1716405
- 16. van Beers, J.C., van Dun, D.H., Wilderom, C.P. (2022). Effective hospital-wide lean implementation: top-down, bottom-up or through co-creative role modeling? *International Journal of Lean Six Sigma*, *Vol. 13*, *No. 1*, pp. 46-66, doi: 10.1108/IJLSS-02-2021-0024
- 17. Yang, Y., Yang, B., Onofrei, G., Nguyen, H., Hlaciuc, E. (2024). The role of employees in continuous improvement: a study on employee participation. *European Journal of Training and Development*, doi: 10.1108/EJTD-10-2023-0167