

INCREASING PRODUCTION THROUGHPUT AND DELIVERY PERFORMANCE THROUGH KPI TRANSFORMATION

Executive Summary:

As the Continuous Improvement lead supporting production operations, I led a production performance transformation focused on improving throughput, reducing backlog, and strengthening delivery performance. The initiative shifted the organization from activity-based measurement to outcome-based measurement, aligning production, planning, quality, engineering, and logistics teams around customer delivery objectives.

By redesigning production KPIs, improving cross-functional coordination, and implementing visual performance management systems, monthly production throughput increased from approximately 10,000 windows to more than 11,000 windows while improving delivery performance and reducing work-in-progress backlog.

Business Challenge:

The manufacturing operation was experiencing growing delivery pressure despite high production activity. Existing KPIs measured success based primarily on units produced rather than completed and shipped project deliverables.

As a result:

- Departments optimized local performance instead of overall project completion.
- Work-in-progress accumulated between departments.
- Production bottlenecks were not visible.
- Delivery schedules became increasingly difficult to achieve.
- Backlog continued to grow despite significant production effort.

Root Cause Analysis

A combination of Gemba walks, Value Stream Mapping (VSM), production reviews, and stakeholder workshops identified several root causes:

- KPI structure focused on activity rather than outcomes.
- Lack of visibility of project completion status.
- Siloed decision-making across departments.
- Misalignment between production priorities and delivery requirements.
- Limited accountability for completed and shipped floors.

Improvement Strategy

The improvement initiative focused on changing organizational behavior through performance measurement and cross-functional alignment.

Key activities included:

1. Value Stream Mapping of production flow.
2. Daily production review meetings.
3. Visual management and KPI dashboards.
4. Cross-functional coordination between Production, Planning, Quality, Engineering, and Logistics.
5. Bottleneck identification and removal.
6. Accountability framework focused on completed and shipped floors.

Solutions Implemented

KPI Redesign

Production measurement was redesigned from:

Before:

Units Produced

After:

Floors Completed and Shipped

This change encouraged teams to focus on customer deliverables rather than isolated production activity.

Cross-Functional Performance Management

Shared KPI visibility was established across multiple departments, creating common objectives and improving decision-making.

Backlog Management

Production planning shifted toward project completion and delivery performance rather than maximizing isolated output.

Visual Management

Performance dashboards and daily reviews improved visibility of bottlenecks and accelerated issue resolution.

Results

Metric	Before	After
Monthly Window Output	~10,000 Windows	11,000+ Windows
KPI Focus	Units Produced	Floors Completed & Shipped
Backlog	Increasing	Reduced
Delivery Performance	Inconsistent	Improved
Department Alignment	Siloed	Integrated

Key Achievements

- Increased monthly production throughput by more than 10%.
- Improved delivery performance through project-focused execution.
- Reduced backlog through outcome-based production management.
- Improved communication and accountability across departments.
- Achieved results without significant capital investment.
- Established sustainable performance management processes.

Sustainability Measures

To ensure long-term success, the following controls were implemented:

- Daily KPI review meetings.
- Visual management dashboards.
- Supervisor accountability structure.
- Weekly bottleneck review process.
- Cross-functional coordination meetings.
- Continuous monitoring of delivery performance.

Leadership Lessons Learned

- KPIs directly influence employee behavior.
- Measuring outcomes produces better business results than measuring activity.
- Cross-functional alignment is critical for manufacturing performance.
- Sustainable improvement requires accountability, visibility, and leadership commitment.
- Operational excellence is achieved through systems thinking rather than isolated improvements.

Conclusion

This initiative demonstrated how strategic KPI redesign and cross-functional leadership can significantly improve throughput, delivery performance, and operational effectiveness. By aligning all departments around customer-focused outcomes, the organization achieved sustainable production improvements while strengthening overall execution capability.

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