



case study | Garment Manufacturing

Garment manufacturer in Indonesia drives efficiency of style changeovers to ensure on-time delivery, enhance competitiveness and drive sales growth

> **client** | A garment manufacturer in Indonesia founded in 1991 employs 4,000 workers producing knitted apparel products.

> **challenge** | This garment manufacturing company was receiving pressure from customers to manufacture in smaller lot sizes and improve on-time delivery performance or potentially lose business to other suppliers in Indonesia. The owners knew they needed to grow the business by 15 percent every year. However, an equal or better increase in operating efficiency was required to support the growth objective.

During an operational assessment, TBM and its client discovered a major loss in efficiency due to excessive changeover times when switching to new styles. Changeover from one style to the next was taking an average of 35 hours.

The company was receiving pressure to change over more frequently with smaller production runs. This significantly impacted efficiency and made it even more difficult to meet their growth objectives.

> **solution** | TBM and its client established a changeover team. Their initial task was to streamline the time required to changeover from last piece of one style to first piece output of second style. They needed to achieve a target speed or pace for every changeover in order to meet customer delivery requirements.

> **results** | The President Director was very pleased with the results stating that the company could expect to complete each changeover within eight hours (down from 35 hours average) with better quality and less capacity.

Cross-functional changeover team identifies and addresses bottlenecks.

The changeover team focused on delivering results in the following focus areas:

- Preparing machines with right material
- Preparing work stations with properly skilled operators
- Preparing materials and tools in advance of the changeover
- Creating quality specifications and standards for material preparation quality

The cross-functional changeover team quickly discovered a major loss in time could be attributed to the poor preparation of materials, men and machines—leading to wasted time and impacting product quality. They also identified the need for standard work to reduce variability in the core processes that must occur in order to changeover from one style to the next.

Oftentimes, garment manufacturers attribute poor operator skills as a leading cause of poor production output. As a result, they commonly reduce daily production targets based on operator learning curves. The cross-functional team charted the production flow on a “layout board” and defined the skills needed within each cell. The layout boards allowed them to better visualize the process, identify standard work, and clearly define the roles and responsibilities of each operator. Part of the standard operations included the requirements for skill levels of operators at key locations throughout the facility.

“This has been a breakthrough for me as changeover has been bothering me for 15 years. Now, I truly agree with NOTHING IS IMPOSSIBLE.” ~ Managing Director, Indonesia garment manufacturer

Changeover Results

Complete each in 8 hours with better quality & less capacity

Changeover time reduced

69%



Productivity improved

38%



Quality improved

31%

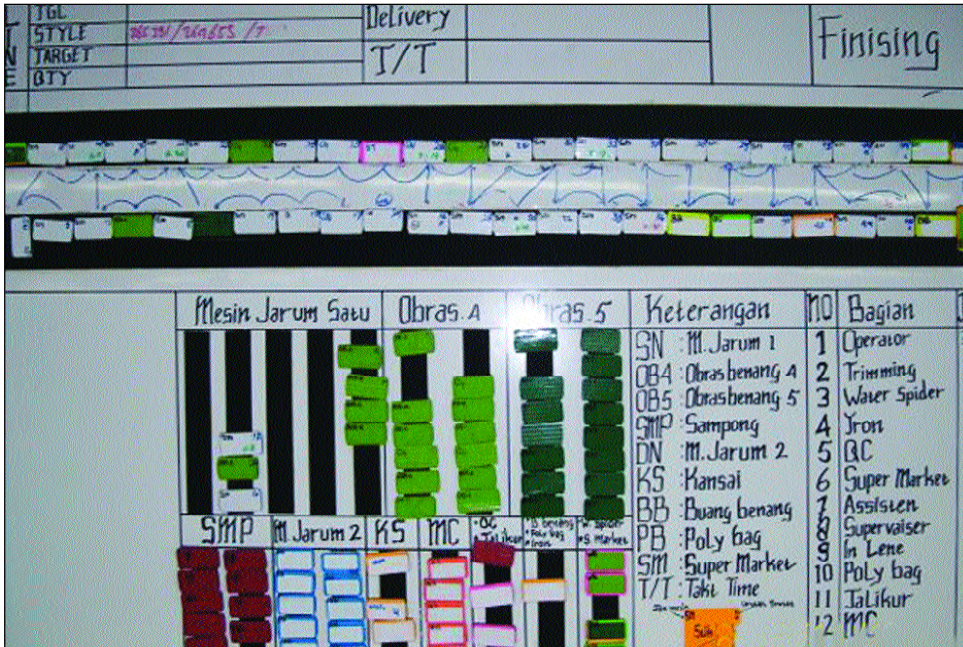


Liberated capacity

9%

Sustained on time delivery close to

99%



The team used a layout board to help operators visualize a smooth flow, machine orientation and identify critical-path stations that could slowdown changeover times.



Simple, easy-to-read visual quality alerts serve as indicators for critical training prior to the start of production.

*The company and the names of its executives have been removed at the request of our client who wishes to remain anonymous.

About TBM Consulting Group, Inc.

TBM Consulting Group, Inc. is the leading provider of LeanSigma® consulting and training services in North and South America, Europe, and Asia. The company's mission is helping manufacturers and service industry businesses create a competitive advantage to generate significant growth in sales and earnings leveraging Lean Sigma as a core management philosophy. The company provides the strategic direction and hands-on implementation to guide cultural and organizational transformation. TBM consultants have deep expertise working with garment industry manufacturers to improve productivity and profitability and leverage LeanSigma methodologies as a core driver for sustainable, profitable growth. Learn more at www.tbmcg.com.



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