



Titan Jewellery's Production Improvement Project

Tanishq – A Case Study



TANISHQ

- Part of the TATA Group
- India's fastest growing jewellery brand
- 1.5B\$ in Sales (PBT~10%)
- 150 retail stores across India

OPERATING ENVIRONMENT

- Share of business: Plain (60%) Studded (40%)

Plain Jewellery

- 70% of the jewellery is manufactured through handmade route, 20% through machine made route and balance 10% through casting route.
- 50% manufactured by dedicated vendors.
- Majority of the designs have a single source

Studded Jewellery

- 40 % of products are manufactured in-house and 60 % are purchased outright from vendors
- For all jewellery produced in-house, casting is done in-house; Finishing operations is either done at in-house facilities or sent to dedicated job-work vendors.
- Designs are not mapped to any particular vendor and the finishing operations can be done at any locations

KEY CHALLENGES

- Long cycle time. Low on time performance.
- DDP measurement not aligned to market needs
- High gold & stones inventory leading to low inventory turns.
- No clear priority mechanism at shop floor.
- No robust system to sustain high service levels to stores in peak season.

VIABLE VISION SOLUTION

- A TOC strategy was suggested to align production to market requirement while reducing production lead time & controlling the level of inventory.

Solution scope

- Improve synchronization between departments
- Prioritize production in accordance with store needs
- Load control at shop floor
- Incentivize vendors to achieve target on key performance metrics.
- SOPs to ensure process sustenance and TOC champions to build a culture of on-going improvement.

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IMPLEMENTATION DETAILS

CHOKER THE RELEASE

- Before** Order loading done based on vendor's capacity at aggregate level.
- After** Skill-set defined for each vendor and order loaded as per their capacity for each skill-set.
- Effect** Controlled order WIP at shop floor & thus reduced waiting time on shop floor

- Before** The orders were loaded immediately on receipt, irrespective of current WIP with vendor or due date of orders.
- After** Orders are released a fixed lead time in advance of the due date and only if there is a gap between order WIP & capacity at skill-set level.
Bulk orders due to store openings or new collections (filler orders) are released in advance of due dates if the capacity gap at skill-set level exists.
- Effect** Ensured manageable load to the vendor while assisting levelling the load to shop-floor

- Before** Gold issue to vendors done based on understanding of shop floor requirement and does not follow any fixed process
- After** Gold is issued as per the defined inventory holding norms for each vendor
- Effect** Reduction in gold holding days and is de-linked to the amount of orders online with the vendor.

MANAGE PRIORITIES

- Before** Priority at shop floor was on need basis and does not have a clear mechanism to determine priority.
- After** Colour based single priority mechanism system
- Effect** Better due date performance and improved synchronization across departments.

- Before** Karigar's earnings based on total output by weight which lead them to focus on higher weight & simple order over complex and low weight orders
- After** Incentive plan to shift focus from output by weight.
- Effect** Motivated karigars to focus on meeting store alignment

- Before** All orders issued to vendor with fixed lead time irrespective of order due date and performance measured as weekly alignment.
- After** End-to-end order lead time adhered
- Effect** Synchronised measurement for entire supply chain is to meet end-to-end DDP.

SHOP FLOOR OPERATIONS

- Before** Karigars tend to start working on multiple orders at same time depending on child part availability for any orders..
- After** The orders are loaded with full kit which lead karigars to complete the orders first and then move to next order
- Effect** Faster rate of output with reduced gold holding days.

- Before** No mechanism to visually understand the operations at shop floor.
- After** Operating performance, colour wise WIP status with karigars, SOP's for issuing order & gold, work flow, bottleneck resource for the day are made visible across shop floor.
- Effect** Better control on operations and help in taking necessary expediting action promptly

"Goldratt team helped us to develop the new TOC concept (..) with simple and powerful visual tracking mechanism(..) The inventory levels have come down significantly to help focus on the WIP at hand and reduce the lead time and increase the flow. The biggest advantage with Goldratt is that they implemented the TOC at the front end thus aligning the backbone to the needs of the retail is more effective"

Rajendran G, Head of Studded Production

ABOUT GOLDRATT CONSULTING

Founded by Late Dr Eliyahu Goldratt, Goldratt Consulting is a global company, Headquartered in Israel with associates in India, China, Japan, USA, Latin America, and Europe.

All our experts have vast industry experience from some of the most successful companies in the World with extensive exposure in implementing TOC applications and Viable Vision projects. Our leadership roster contains the most highly renowned TOC experts in the world.

Our approach is based on Theory of Constraints (TOC) - the time tested, logical, common sense solutions introduced by Dr. Eli Goldratt 25 years ago in his book, The Goal, which is still a best-seller today.

TOC has been implemented in nearly every function in companies from \$25 million family operations to top Fortune 500, in product and project manufacturers, and companies with simple and complex distribution networks. TOC is taught in hundreds of colleges and universities, and much has been published on the subject.

Goldratt Consulting is not a typical Consultancy

- We only work with companies that commit to reaching a level of performance they had previously considered unattainable.
- We only implement solutions that bring such performance without compromising long term for short term or one stakeholder group for another (shareholders, management, employees, and customers).
- Instead of hourly or daily rates, our fees are based on the mutually agreed value that is generated through our efforts.

“(..)By bringing in the TOC approach, the systematic approach ,the control on the Gold inventory and delivering the products on time, thus enabling the sale opportunity, a good edge towards bringing the bottom line up has started.(..)”

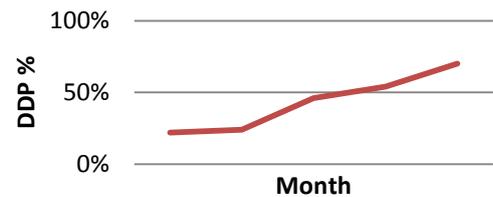
- Radhamanalan P, Head of Plain Production

KEY BENEFITS

Plain

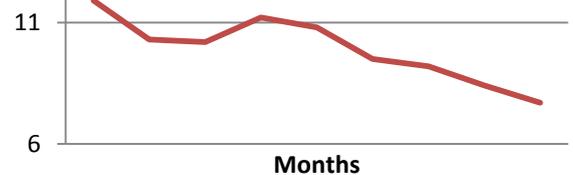
- DDP improvement from 22% to 70% while supporting 36% increase in Output

Plain DDP



- 30% Reduction in inventory holding days

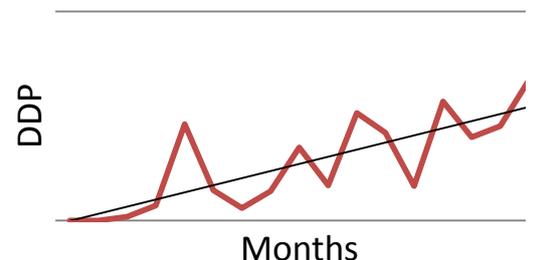
Inventory Holding Days



Studded

- 25% reduction in overall lead time
- 40% reduction in stone inventory
- DDP increase from 20% to 75%

Average DDP



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