

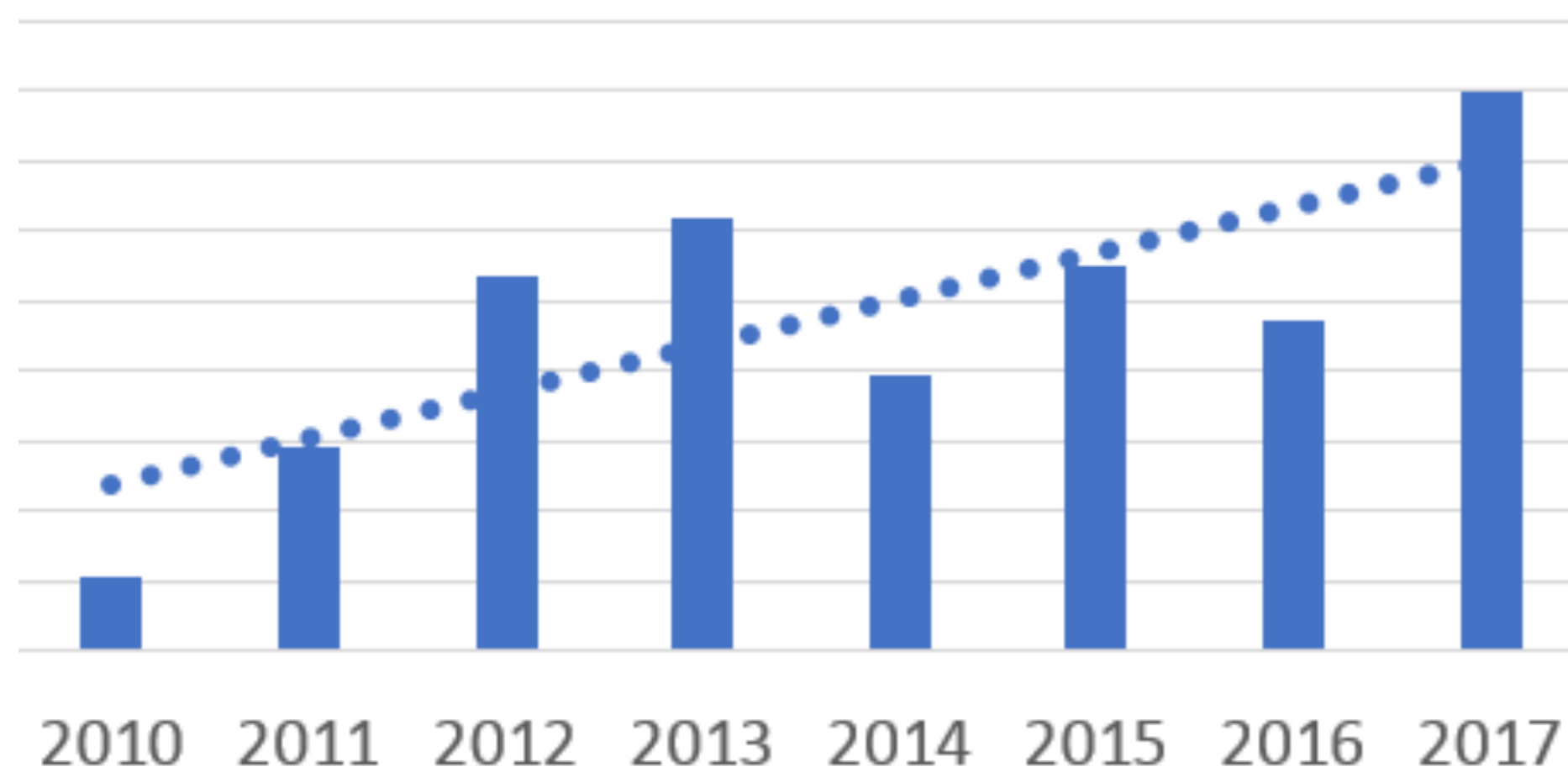
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 Sponsor: WOB Corporation

Improving Inventory Strategies for Consumable Materials

Motivation / Background

- WOB Corp. manufactures Global Positioning Systems components
- Global economies and military operations rely on timely delivery
- Lack of availability to Consumable material delays production
- Ineffective management of these inventories create waste

**Scrap Cost Due to Expiration
2010 - 2017**



Key Questions

- How can WOB Corporation better understand the nature and patterns of Consumable items in its manufacturing processes?
- Will Kanban implementation improve inventory management for WOB Corporation?

Relevant Literature

- Leopold, Klaus, and Siegfried Kaltenecker. 2015. Kanban Change Leadership: Creating a Culture of Continuous Improvement. Hoboken, NJ: Wiley. Silver,
- Pooler, Victor H., David J. Pooler, and Samuel D. Farney. 2004. Global Purchasing and Supply Management. Fulfill The Vision. Boston, MA: Springer US.
- Edward A., David F. Pyke, and Douglas J. Thomas. 2016. Inventory and Production Management in Supply Chains. 4th edition. Boca Raton: CRC Press.



The Problem

- Consumable materials are required in all WOB Corporation processes
- Uncertain nature of Consumables create variability and uncertainty
- Ambiguity prevents accurate forecasting and planning, leading to waste

- **As Required [AR]:** Material without a discrete requirement as is found on the Bill of Materials

FIND #	Qty	PartNumber	Description
1	1		
2	7		
3	6		
4	AR		SOLDER, PASTE
5	AR		SOLDER, SN63
6	1		
7	9		
8	8		

Methodology

- 1.) Data collection & query creation
- 2.) Evaluate historical usage
- 3.) Shift focus from quantity to issues
- 4.) Identify items for pilot
- 5.) Rolling Kaizen events (Kickoffs)
- 6.) Train operators
- 7.) Evaluate progress
- 8.) Expand & improve the program

Initial Results

- Successful pilot program already underway
- Started with the most critical Consumable material (Pilot Item #1)
- Operators have embraced the new process
- Time Savings evident, cost savings has already materialized
- Corporate leadership buy in to expand program – Dec 2018

Savings Per Shipset for First Pilot Item (Item No. 1)

	Product 1 Operations Affected	Product 2 Operations Affected	Product 3 Operations Affected
Number of Uses	124	261	50
Time Saved Per Operation (minutes)	16	16	16
Time Per Ship Set Delivery (minutes)	1984	4176	800
Time Per Ship Set Delivery (Hours)	33.07	69.6	13.33

Savings per Delivery	\$3,472	\$7,308	\$1,400
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Expected Contribution

- Formulation of a Consumable material management policy
- Creation of a robust Kanban system capable of scale
- Cost savings in the form of reduced waste
- Increase manufacturing throughput and efficiency

Jake Haber



NOTE: Company name has been changed to protect critical information