



Operational Efficiencies

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Define Operational Efficiencies

Measure of process capability to deliver products in the most cost effective manner to deliver the highest quality and service.

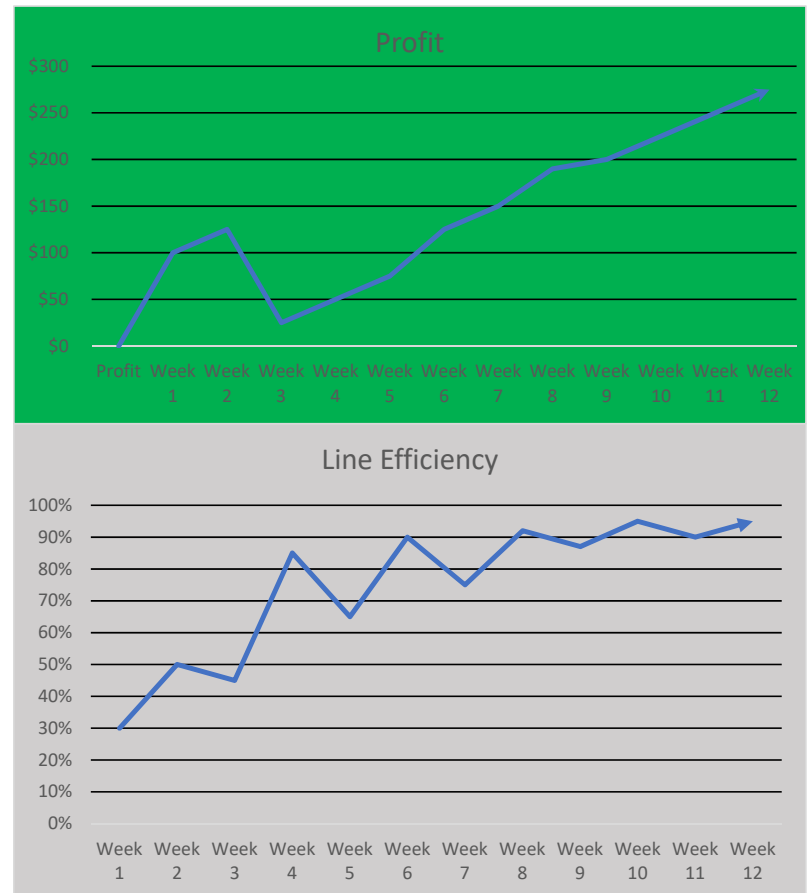
Success: Can be meeting a metric or working towards one!

Examples of KPI's

- **Throughput** – lbs. / Line Hour
- **Crewing** – Man Hours / Line Hour
- **Yield** – Material Outputs / Material Inputs

Benefits of measuring Operational Efficiencies

- Budgeting
- Personnel Morale
- Improved Safety
- Improved forecasting
- Improved Customer fulfilment
- Improved Quality
- Predictive capacity availability
- Predictive problem solving
- Benchmarking
- Establish accurate cost
- * All this leads to improved Profitability!



Benefits of measuring operational efficiencies



Ingredient cost – Yield – Accurate ingredient warehousing and purchasing - accurate product costing



Labor Cost – Accurate staffing needs



Overhead Cost –
Maximize volume to
reduce cost

Depreciation – Lease cost –
maintenance



Selling Expense –

Maximize truck scheduling –
Reduce or Eliminate Demerge
charges

Reduced LTL – (Less than full
load)

Less Inventory – Reduced
warehousing (Just in time)

Establishing Operational Standards

3 Types of Standards

Demonstrated – Throughput, Crewing, and Yield based on past performance.

Costed – Based on the costing point of the product. (break even)

Engineered Standard – A Scientific approach that takes into account equipment ratings, product specifications, processing steps, and labor measurement to establish potential throughput, crewing, and yield.

Establishing Demonstrated

- Example:
- Line x
- Product - 1
- Time line – over the last 26 weeks.
- Line Hours used
- Man hours used
- Pounds produced
- Down time incurred

Line	X	
Product	1	
Date Range:	1/1/2019	7/2/2019
Total Line Hours	2,496	
Total Labor Hours	12,480	
Total Down Time (hrs)	156	
Total Pounds Produced	2,496,000	
Ingredient use	1,747,200	
Demonstrated Pounds / Line Hour	1000	
Demonstrated Crew / Line Hour	5	
Demonstrated Yield	142.86%	

Establishing Costing Standard

- Example:
- Break your production Cost into Overhead cost (Fixed & Variable)
- Labor Cost
- Ingredient cost
- Etc.
- Determine your price point.
- Determine the line hours, labor hours, and ingredient cost needed to meet your cost goals.

Cost Components	\$ / Pound
OH cost	\$ 0.67
Labor Cost	\$ 0.08
Ingriedient Cost	\$ 0.25
Expected Cost	\$ 1.00

Rates:		
Overhead Rate	\$1,000	
Labor Rate	\$15.00	
Ingriendnt	0.25	@ 125% Yield
Labor Required	8	
Labor cost / Hour	\$120.00	
Throughput Needed	1029.854	lbs / Hour
Expected Cost	\$1.00	/lb

Establishing Engineered Standard

- Example:
- Determine the capabilities of each piece of equipment for each product
- Determine Yield
- Using labor measurement, determine labor required

Throughput Evaluation	
Process Step	Throughput (lbs / hr)
Mixing	2000
Baking	2000
Cooling	2000
Packaging	2000

Throughput Evaluation W/ Yeild	
Process Step	Throughput Lbs
Mixing	2500
Baking	1800 Bottleneck
Cooling	1900
Packaging	1980

Yield Evaluation	
Process Step	Yield
Mixing	125%
Baking	90%
Cooling	95%
Packaging	99%

Throughput Evaluation W/ Bottleneck		
Process Step	Throughput Lbs	Crewing
Mixing	1440	1
Baking	1800	1
Cooling	1710	0
Packaging	1692.9	4

Labor Evaluation		Unit of Measure
Process Step	Crewing / Rate	
Mixing	Station Filled	
Baking	Station Filled	
Cooling	No Requirement	
Packaging	500	lbs / Hr.

How to improve operational Efficiencies

First – You have to measure!

Honest self evaluation is the key!

Identifying the gaps between actual performance and Standard

- Line Speed – Quality – Crewing - Downtime

Training / Education

- Standard Operating procedures
- Standardized work instructions
- Standardized Data collection

Frequent Feedback

Maintenance & Workorder Program

Summary

- It begins with measuring!
- Having a winning attitude!
- Establishing standards
- It ends with SUCCESS!

