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- Innovation Stage - *Exhibit Hall – The Bridge (Booth P14051)*
  Our Innovation Stage sessions feature free, promotional content for all attendees.

- Vision Series - *Thursday, Sept 19 and Friday, Sept 20*
  Grab a bite to eat or drink and continue learning over breakfast or lunch!* Listen to industry leaders as they address the latest clinical innovations in a relaxed and collaborative environment.

  **Open to Optometrists only. Not for Credit. Meals offered on first-come, first-serve basis to pre-registered attendees.*

- Exhibit Hall Hours

Thursday, Sept 19	9:30am – 6:00pm
Friday, Sept 20	9:30am – 6:00pm
Saturday, Sept 21	9:30am – 3:00pm

The Practice Owner's Guide to

Lean Inventory Management

A Presentation by

Aaron Neufeld, O.D.

slido

Join at slido.com
#3022283

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FINANCIAL DISCLOSURES

Speaking/Consulting
Speaker/Consultant, Coopervision
Speaker, Alcon
Speaker/KOL, ReviewWave
Advisory Board, Vyluma
Advisory Board, Stifel Investments

Ownership/Equity - Significant
Co-Owner, ODs on Finance LLC
Co-Owner, EyeDock LLC
Partner/Investor, ODoF Ventures

Ownership/Equity - Minority Stake
Shareholder, Virtual Vision
Shareholder, Barti
Shareholder, Mercantile (AOA card)
Shareholder, Percept

All relevant relationships have been mitigated

Who is this Guy and

WHY ARE WE STUCK **WITH HIM FOR AN HOUR?**

★ Multi-practice Owner
- **Los Altos Optometric Group**
- **Pacific Eye Care Optometry**
- **The Contact Lens Institute**

★ Partner/Investor
- **ODoF Ventures**

ODoF Ventures

★ Owner
- Neufeld Holdings (practice real estate)

★ Co-Founder/COO/Practice Consultant
- **ODs on Finance**

ODs on Finance
PRACTICE OWNERS

eye DOCK

ODS ON FINANCE MERCHANT SERVICES
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WHO IS THIS GUY

AND WHY AM I STUCK WITH HIM FOR AN HOUR?

WHO IS THIS GUY

AND WHY AM I STUCK WITH HIM FOR AN HOUR?

DISCLAIMER

I am not an attorney, CPA, financial advisor or realtor

This presentation is for your information and entertainment only and does not constitute formal, personalized financial, accounting, or legal advice.

OBJECTIVE

To introduce practice owners to the fundamentals of lean management and inventory management, marry the concepts and extrapolate methodologies that create efficiency, revenue production and patient satisfaction. Strategies involving staff and technology will be discussed.

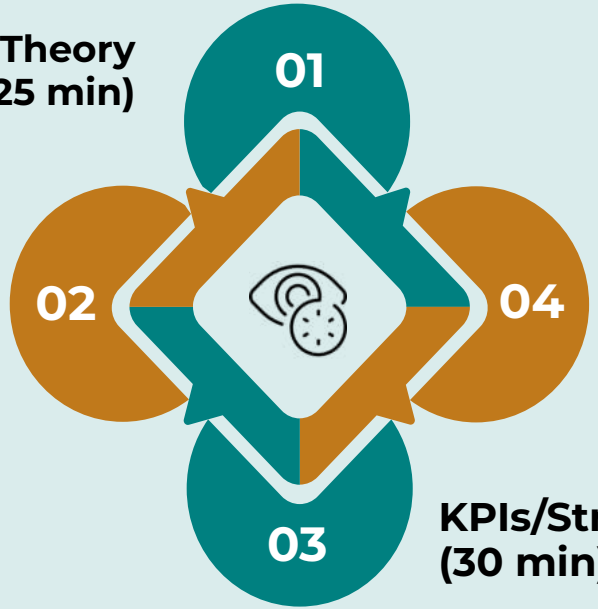
KEY TAKEAWAYS

- Be able to apply Lean to inventory management
- Be able to understand the steps + metrics involved w/ inventory mngmt
- Utilize this application to create new efficiencies and increase revenue generation

Today's AGENDA

Lean Theory
(25 min)

Inventory Management
Importance/Steps (30 min)



Lean
Maintenance/Conclusion
(5 min)

KPIs/Strategies/Benchmarks
(30 min)

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What does it mean to be lean?

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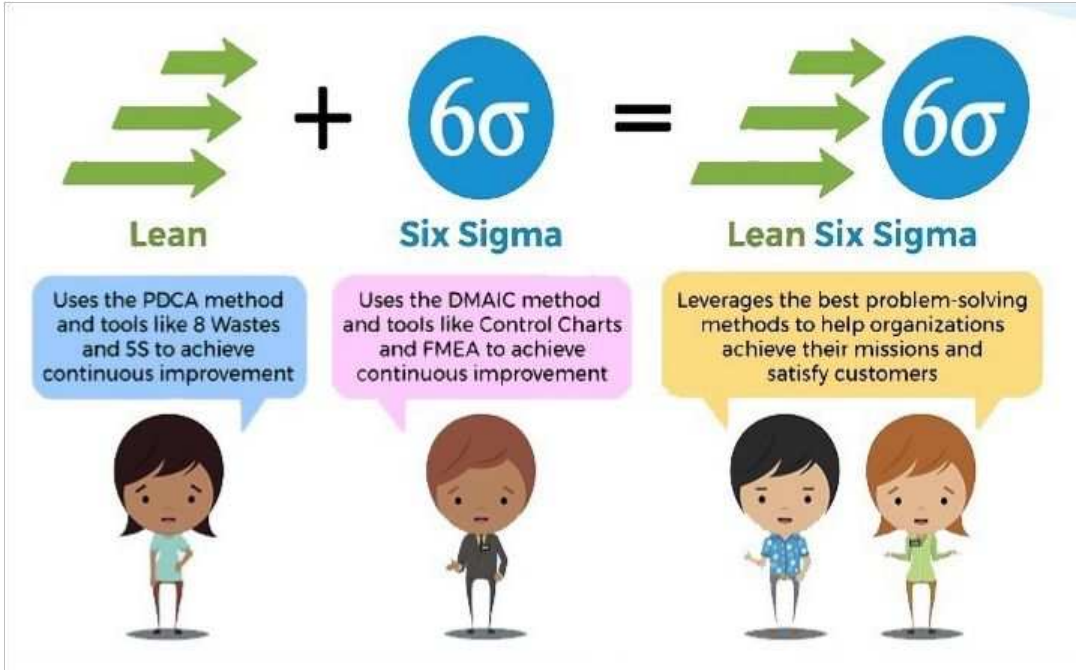
What Does it Mean to Be Lean?

A collaborative team effort to **improve performance** by **removing waste and variation**

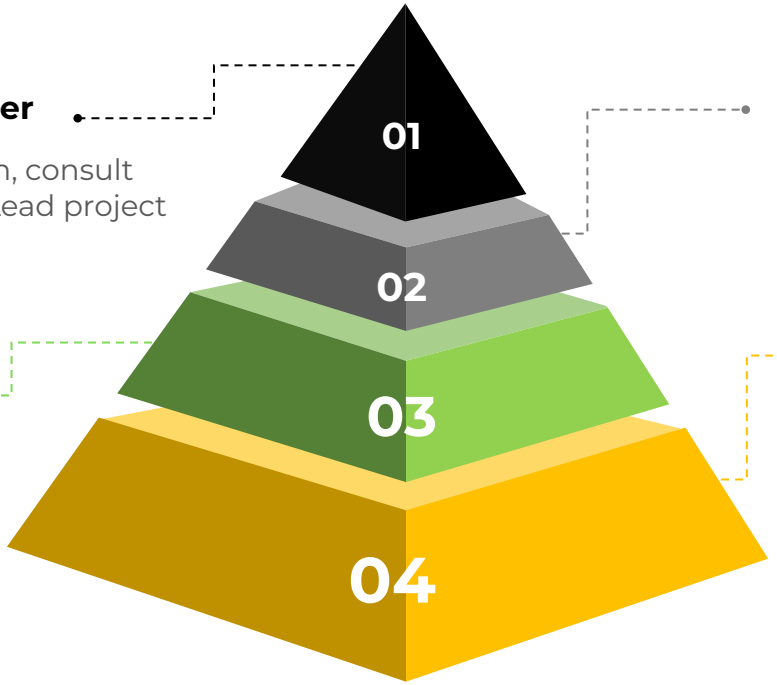
Derives name from **Lean Six Sigma**

WHAT IS LEAN SIX SIGMA?



A HISTORY LESSON

WHAT IS LEAN SIX SIGMA?



Master

Coach, consult and Lead project

Black Belt

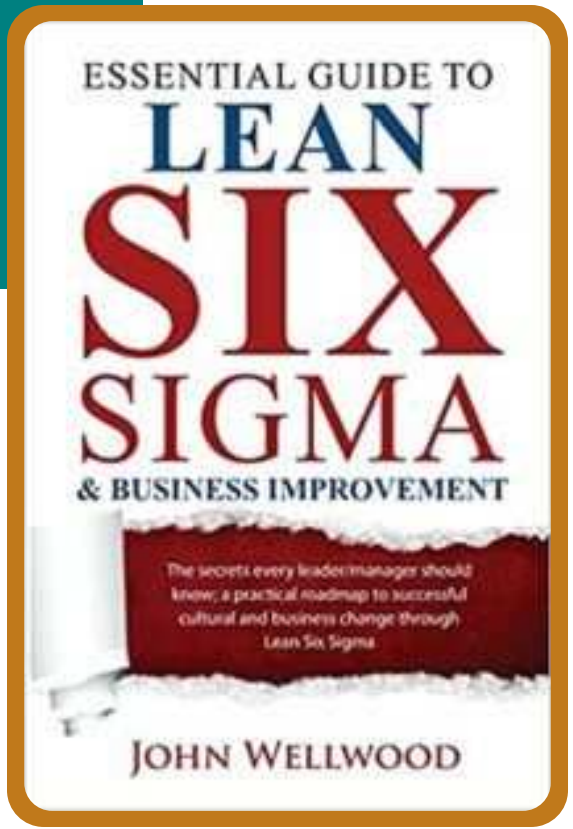
Lead and manage projects

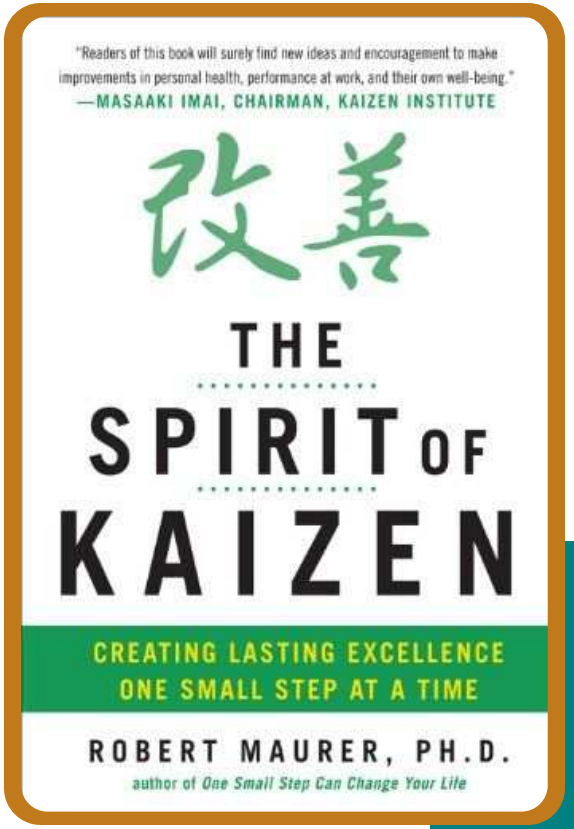
Green Belt

Lead or support projects

Yellow Belt

Understand Basics of lean six sigma


ESSENTIAL GUIDE TO
LEAN
SIX
SIGMA
& BUSINESS IMPROVEMENT
The secrets every leader/manager should know; a practical roadmap to successful cultural and business change through Lean Six Sigma
JOHN WELLWOOD


"Readers of this book will surely find new ideas and encouragement to make improvements in personal health, performance at work, and their own well-being."
—MASAAKI IMAI, CHAIRMAN, KAIZEN INSTITUTE
改善
THE
SPIRIT OF
KAIZEN
CREATING LASTING EXCELLENCE ONE SMALL STEP AT A TIME
ROBERT MAURER, PH.D.
author of One Small Step Can Change Your Life

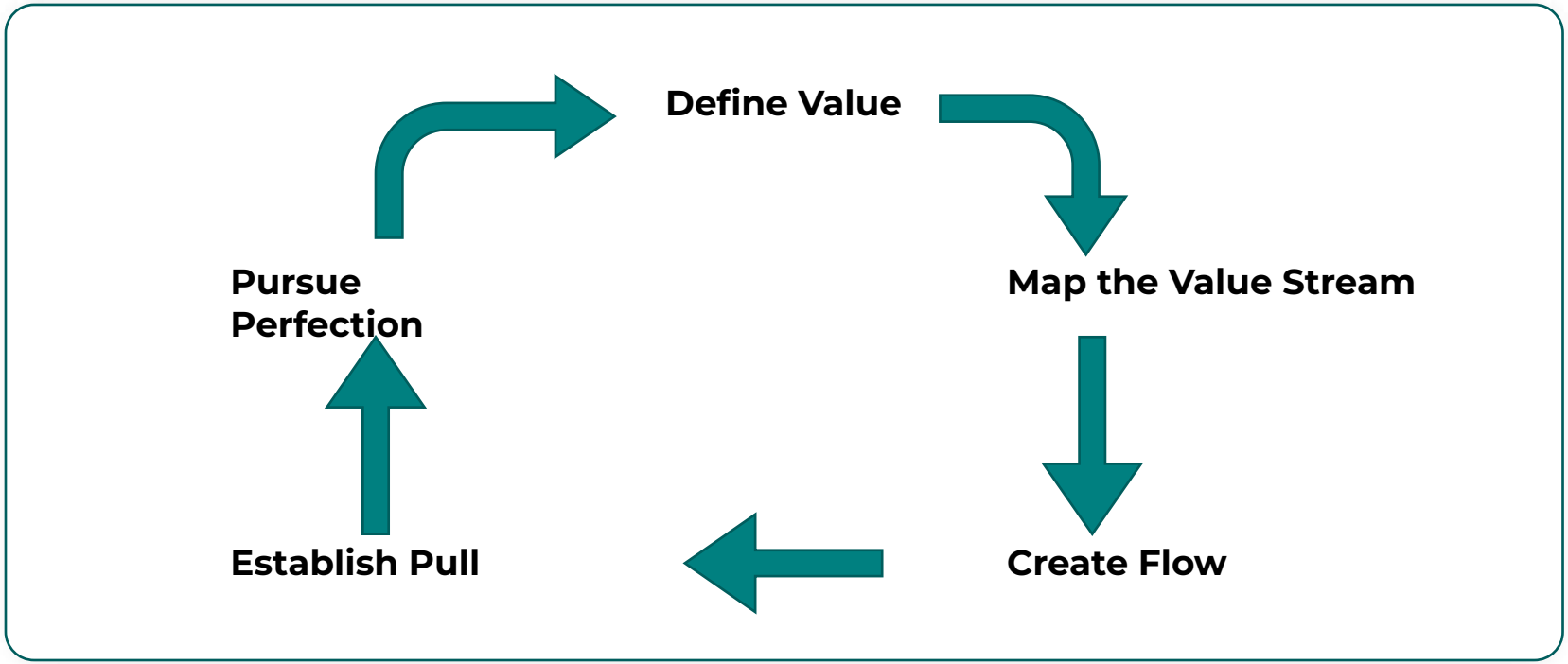
THE MORAL CONUNDRUM WITH LEAN SIX SIGMA

01.
Designed for Large Corporations, not SMBs

02.
Inherently lacks empathy

03.
This course will present an altered approach while still staying true to underlying principles

THE PRINCIPLES OF LEAN



THE FIVE STEP PROCESS OF LEANING (DMAIC)

Define

Find problems

Measure

Find gap that problem encompasses

Analyze

find the reason for the gap existing

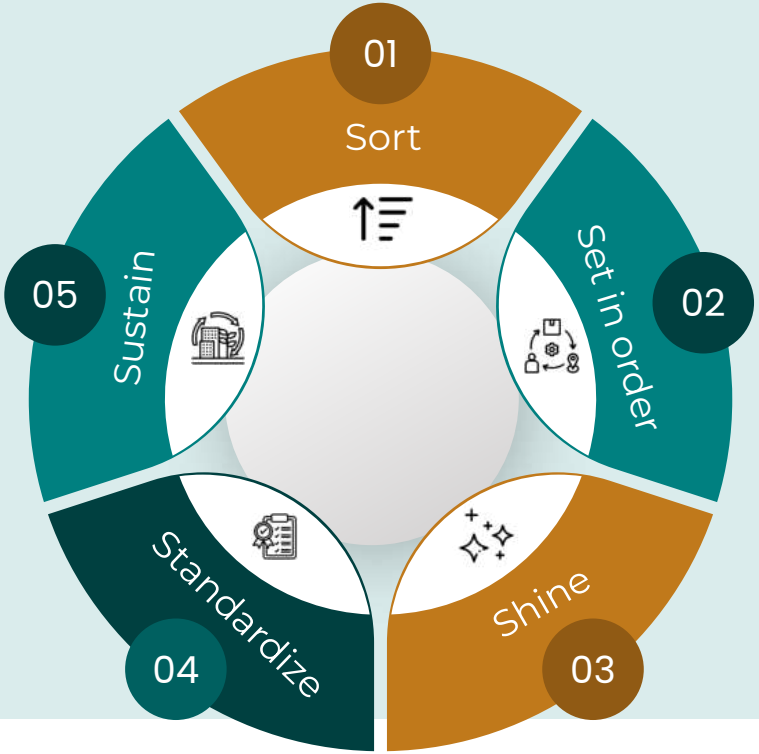
Improve

Close the gap and get rid of the defects

Control

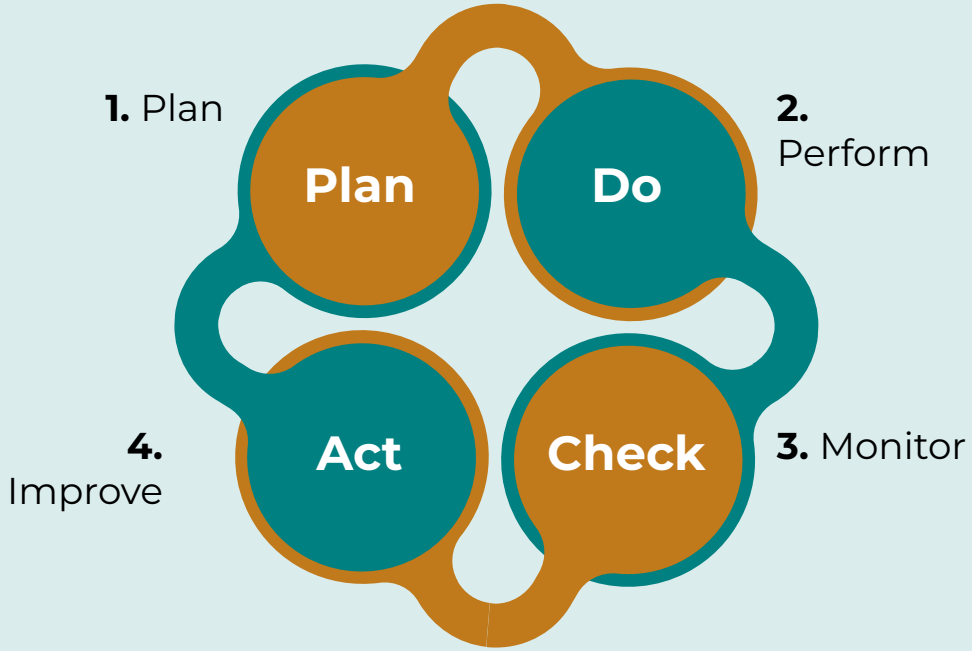
Sustain improvements

WHAT IS 5S?


01
Sort
02
Set in order
03
Shine
04
Standardize
05
Sustain

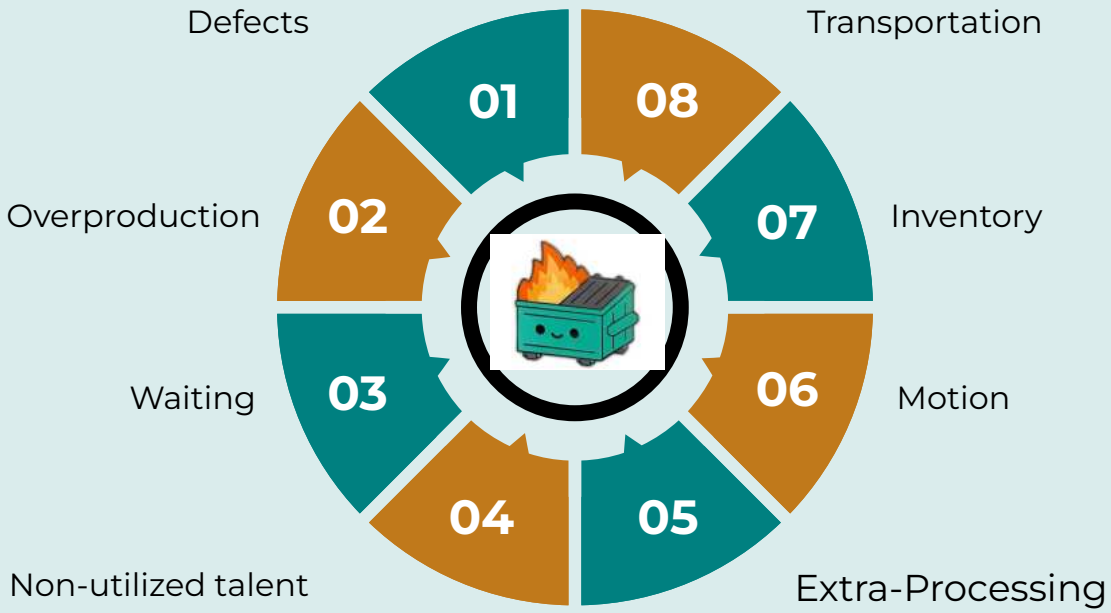

Uses the PDCA method and tools like 8 Wastes and 5S to achieve continuous improvement

WHAT IS PDCA?


1. Plan
Plan
2. Perform
Do
4. Improve
Act
Check
3. Monitor


Uses the PDCA method and tools like 8 Wastes and 5S to achieve continuous improvement

THE 8 TYPES OF WASTE



ELIMINATE WASTE, GAIN MONEY, TIME + HAPPINESS!

Total Revenue - Total Expenses = **Net Profit**

1. Defects
2. Overproduction
3. Waiting
4. Non-utilized talent
5. Extra-Processing
6. Motion
7. Inventory
8. Transportation

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Which type of waste do you find the most in your office?

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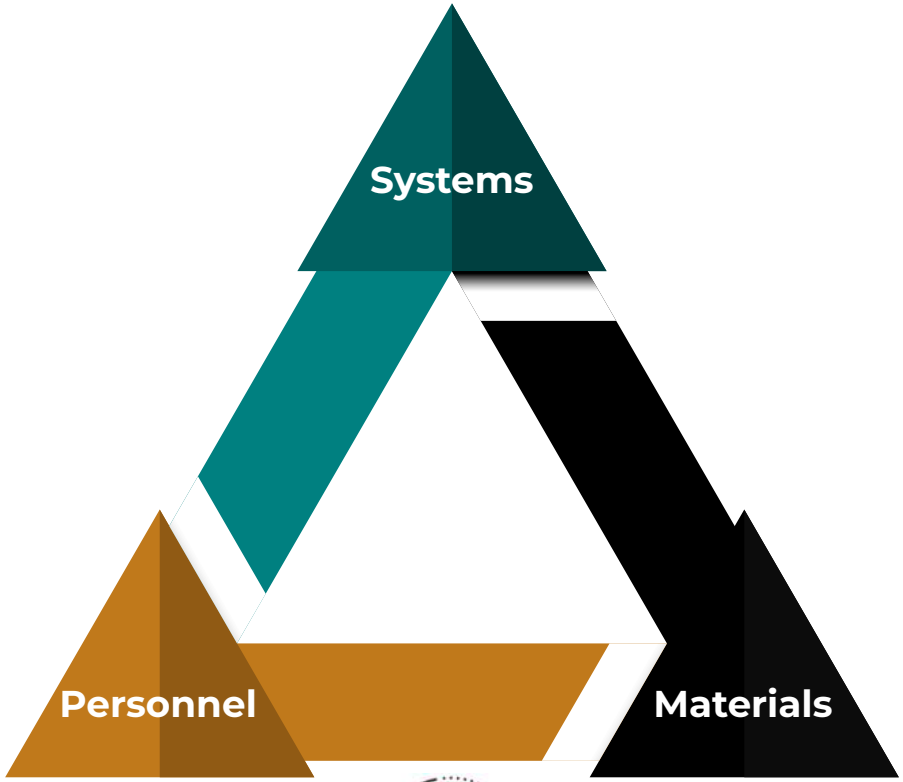
LOOK AT YOUR PRACTICE TRINITY



FIND PROBLEMS
WITH THE TRINITY

Three Ways:

Root Cause Analysis **(RCA)**

Value Stream Mapping **(VSM)**

Cost Benefit Analysis **(CBA)**

ROOT CAUSE ANALYSIS (RCA)

Find the very basic, underlying problem

Ex #1:

High office expenses: find where office manager is ordering products, shop around for cheaper products and utilize that storefront

ROOT CAUSE ANALYSIS (RCA)

Find the very basic, underlying problem

Ex #2:

Increasing retinal screening conversions: look at initial script presented to patient, the manner it is presented and who is presenting it

VALUE STREAM MAPPING (VSM)

Identify where waste is and work to eliminate it

Ex:

Real Estate waste: Can break rooms or doctor offices be used for practice efficacy - such as a VT activity room or contact lens area?

COST BENEFIT ANALYSIS (CBA)

Identify where waste is and work to eliminate it
Identify costs and benefits of material or process, then minus the cost from benefits to determine if worthwhile - can do this monetarily but also with intangibles

Ex: OCT CBA: dollar amount cost vs. reimbursements/cash pay for glaucoma, retina and scleral lens fitting to determine necessity

COST BENEFIT ANALYSIS (CBA)

Purchasing an OCT

Initial Capital Cost: $60,000

Projected revenue Generated Annually:

$10,000 (200 patients* $50/medical reimbursement)

Annual net income: $10,000-$60,000= -$50,000

ROI = -$50,000/60,000= **- 0.83**

COST BENEFIT ANALYSIS (CBA)

Initial Capital Cost: $60,000

Projected revenue Generated Annually: $10,000 (200 patients at $50 each)

- **Staff time per usage** (@ $20/hr) - 15 min = $5/patient - $500/100 patients
- **Doctor time per usage** (@ $60/hr) - 5 min = $5/patient - $500/100 patients
- **Biller time per usage** (@ $15/hr) - 3 hrs/100 patients - $45/100 patients
- **Avg. Maintenance cost per year** - $200
- **Energy cost per usage** - $0.25 - $0.25 x 100 patients - $25
- **Footprint** - 10 sq ft @ $30 sq ft/yr lease = $300/yr
- **Property tax** - not applicable in this instance

$500+ $500+ $45 + $200 + $25+ $300 = **$1570/year**. Certainly not a huge amount, but enough to be seen as significant!

COST BENEFIT ANALYSIS (CBA)

Initial Capital Cost: $60,000

In this model we can see that if revenue remains consistent (in the real world we hope it would increase - but we are keeping it stagnant for simplicity's sake), we will see a break-even point around Year 6 of owning the device. After this, the machine begins to reap a profit.

Initial Capital Cost:

$60,000

Yearly Cost:

$1570

Revenue:

$10,000

MATERIALS (QUANTITATIVE)

Lenses

Internal lab

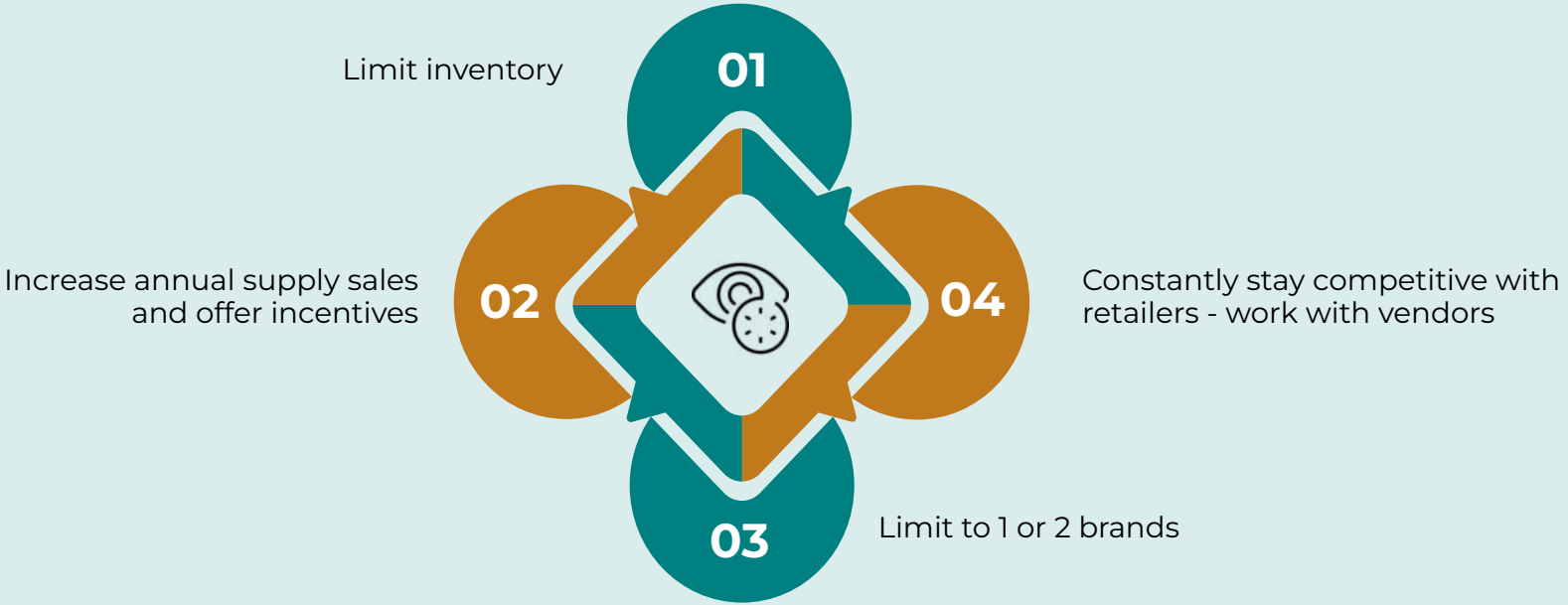
1. Streamline production
2. Create systematic approach for reducing errors and limiting time per job
    i. Study errors/defects as they occur and provide immediate fix

External lab

1. Experiment with different external labs
2. Look at Three Items with external labs
    i. Cost
    ii. Time to complete job
    iii. Defects/Redos
3. Keep in contact with preferred lab and remind them of your standards

MATERIALS (QUANTITATIVE)

Contact Lenses



The Sad Truth - Contact Lens supply revenue is subject to the law of diminishing returns

What is Inventory Management?

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Who places emphasis on inventory management in their practice?

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Why is Inventory Management Important?

Effective Inventory Management Results in:

- Lower costs
- Better understanding of sales patterns
- Minimizes out of stocks
- Improves Profit Margins
- Prevent Spoilage and Obsolescence

Effective Inventory Management Results in:

- Improves Multi-channel/omnichannel performance
  - Esp. prevalent for online offerings
- Simplifies Processes and Facilitates Growth
- Reduces Shrinkage

Effective Inventory Management Results in:

- Eases Supply Chain Management
- Improves Customer Satisfaction
- Improves Forecasting

What do we Inventory?

1) Frames
2) Ophthalmic lenses
3) Contact Lenses
4) nUtraceuticals
5) Solutions/Drops

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Select all that you inventory in your practice:

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10 Steps in Retail Inventory Management
1. Create a centralized record of all products
2. Identify stock location
3. Do regular and accurate stock counts
4. Combine sales and inventory data
5. Create a purchasing process
6. Establish a method for markdowns
7. Build a stock receiving process
8. Create a system for returns
9. Determine a dead stock procedure
10. Pick your inventory KPIs

1) Create a Centralized Record of All Products

- Product Names
- Stock keeping unit (SKU)
- Brand
- Variables
  - Size, product category, etc.
- Wholesale cost
- MSRP
- Inventory on hand
- Reorder lead time
- Economic order quantity (EOQ)*

Economic Order Quantity (EOQ)

Economic order quantity (EOQ) is the ideal quantity of units a company should purchase to meet demand while minimizing inventory costs such as holding costs, shortage costs, and order costs.

$$EOQ = \sqrt{\frac{2 \times S \times D}{H}}$$

where:

S = Setup costs (per order, generally including shipping and handling)

D = Demand rate (quantity sold per year)

H = Holding costs (per year, per unit)

Economic Order Quantity (EOQ)

EOQ example:

You sell 1000 frames per year (D), average cost per frame of $100 (S), and it costs roughly $10 to hold each frame yearly (H)

$$EOQ = \text{sq rt} \frac{[2 \times (D=1000) \times (S=\$100)]}{\$10} = 141.42$$

EOQ = 141 → ideal order size to minimize costs and meet customer demand

Downfall: assumes constant sales

Economic Order Quantity (EOQ)

EOQ example:

EOQ = 141

Assuming a 1x turnover rate (remember 1000 frames/yr)

We need to place this EOQ 7 times per year, or roughly every other month

Downfall: assumes constant sales

2) Identify Stock Location

1. Display/Optical
2. Storeroom
3. Warehouse
4. Distribution center

RFID - useful if very large

Most offices can get away with barcodes or simple labels

3) Regular + Accurate Stock Count

Count Inventory Periodically!
→ At least once a quarter, monthly often recommended for optical

Check for:

- Shrinkage
- Damage
- Defects
- Returns/exchanges

Physical counting or cycle counting

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How Often Do You Count Inventory?

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4) Combine Sales and Inventory Data

- Use EMR, inventory management software, or by hand!
- Determine:
  - 1) Velocity - quick sellers
  - 2) Laggers - slow sellers

Pearls:

★ **Utilize data to determine reorder patterns**

★ **Utilize data to help with pricing strategy**

5) Create a Purchasing Process

- Schedule times to review data
- Schedule times to place orders
- Schedule rep meetings (if necessary)
- Create systems to trigger alerts for purchasing

- Prioritize based on
  - Profitability
  - Popularity
  - Lead time

6) Establish a Process for Markdowns and Promotions

- Systemize moving slow sellers
  - Markdowns
  - Higher incentives/bounty
  - Selling to another retailer/office
- Why slow sellers occur:
  - Cooling trends
  - Obsolescence
  - Seasonality
  - Wrong market fit

7) Create a Stock Receiving Procedure

1) Verify Incoming orders
2) Enter goods into system
3) Comparing delivery to purchase order
4) Confirm all product
    a) Note defects, damage or missing product
    b) Communicate with vendors if missing
5) Enter goods into inventory counts
6) Affix price tags/barcodes
7) Store good or merchandize them

8) Create Procedure for Returns

1) Understand vendor return and exchange policy fully
2) Decide timing on replacing product
   a) Too soon - unable to collect appropriate data
   b) Too late - stale inventory wastes a potential movable unit

9) Determine a Dead Stock Procedure

Dead stock = damaged, incorrect or unusable/seasonal products

1. Record items + remove from inventory
2. Designate a holding place
3. Designate frequency of handling

10) Pick Inventory KPIs

- Profitability
- Inventory value
- Sell Through Rate
- Turnover Rate
- Capture Rate

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Who tracks KPIs?

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10) Pick Inventory KPIs

- **Profitability**
- Inventory value
- Sell Through Rate
- Turnover Rate
- Capture Rate

Profitability

List Price - Wholesale Price = Profit

10) Pick Inventory KPIs

- Profitability
- **Inventory value**
- Sell Through Rate
- Turnover Rate
- Capture Rate

Inventory Value

Calculate total wholesale costs of all goods for sale

10) Pick Inventory KPIs

- Profitability
- Inventory value
- **Sell Through Rate**
- Turnover Rate
- Capture Rate

Sell Through Rate

$$\frac{\text{Number of Units Sold}}{\text{Number of Units Received}} \times 100$$

10) Pick Inventory KPIs

- Profitability
- Inventory value
- Sell Through Rate
- **Turnover Rate**
- Capture Rate

****Turnover Rate****

$$\frac{\text{Annual Frame Units Sold}}{\text{Number of Frames in Inventory Annually}}$$

10) Pick Inventory KPIs

****Turnover Rate****

- **Industry Average = 1.8x (annual)**
- Varies by practice size:

Annual Frame Turnover (includes multi-location practices)		
Annual Gross Revenue	**Annual Frame Turnover**	**Median Frames Inventory**
$650,000	1.5	700
$1,000,000	1.8	890
$1,500,000	2.2	1,000
$2,000,000	2.4	1,150

Strategies to Further Lean Out our Inventory

1. Waste Elimination
2. Demographic Approach
3. Vendor Cutting/Going Outside the Vendor
4. Pricing Strategies
5. Profitability Amidst VCPs

Strategies to Further Lean Out our Inventory

1. **Waste Elimination**
2. Demographic Approach
3. Vendor Cutting/Going Outside the Vendor
4. Pricing Strategies
5. Profitability Amidst VCPs

Waste Elimination

Inventory Creep

- Count your frames!
- Check Pricing Tiers
- If you have effective opticians, you need less frames

Waste Elimination

Overstock

- Track inventory - use digital means
- Limit frame reps
- Ensure backstock is being used and not forgotten

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Who experiences inventory creep/overstock?

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Strategies to Further Lean Out our Inventory

1. Waste Elimination
2. **Demographic Approach**
3. Vendor Cutting/Going Outside the Vendor
4. Pricing Strategies
5. Profitability Amidst VCPs

Demographic Approach

WHAT does your customer base actually need?

- Occupation
- Avocations
- Regionality
- Environment
- AGE

Strategies to Further Lean Out our Inventory

1. Waste Elimination
2. Demographic Approach
3. **Vendor Cutting/Going Outside the Vendor**
4. Pricing Strategies
5. Profitability Amidst VCPs

Vendor Cutting/Going Outside the Vendor

- Reps DON’T care about you
- Work with fewer vendors
  - Better pricing
  - Ability to leverage/negotiate
  - Less stagnant inventory

- Healthy opticals often don’t need more than 5-6 different vendors

Vendor Cutting/Going Outside the Vendor

Go Outside the Vendor

- Utilize alternative stocking sites
- Remember: rep's salary/bonus is built into YOUR cost of frames
- Not all rejects/obsolete
- No Minimums
- Example: ODs United

Strategies to Further Lean Out our Inventory

1. Waste Elimination
2. Demographic Approach
3. Vendor Cutting/Going Outside the Vendor
4. **Pricing Strategies**
5. Profitability Amidst VCPs

Pricing Strategies

Price Elasticity Testing

- **Price Elasticity of Demand (PED) -** measures the percentage change in quantity demanded by consumers as a result of a percentage change in price

- Run on Best sellers → continue running until inflection met

Pricing Strategies

Markups

- Vary!
- Good to have some sort of formula
- Standard 3x is outdated
    - May result in LOSSES

Pricing Strategies

Minimum List Price (MLP)

- Defined as the minimum price you will sell ANY frame at
- It ***costs as much*** to sell a $25 frame vs a $750 frame
- Factor in operation costs

This is important to remain profitable with VCPs…

Strategies to Further Lean Out our Inventory

1. Waste Elimination
2. Demographic Approach
3. Vendor Cutting/Going Outside the Vendor
4. Pricing Strategies
5. **Profitability Amidst VCPs**

Profitability Among VCPs

- Each Plan has unique benefits and features when it comes to allowances

- Different Factors to watch out for
  - Wholesale Frame Allowance (WFA)
  - Retail Allowance
  - Percentage of

- MLP ensures at least moderate profitability on all transactions

Benchmarks for Success

1. Capture Rate
2. Multiple Pair Ratio
3. Anti-reflective Coating Ratio
4. Optical Gross Profit Margin
5. Remake Ratio
6. Annual CL Sales Ratio

Benchmarks for Success

1. **Capture Rate**
2. Multiple Pair Ratio
3. Anti-reflective Coating Ratio
4. Optical Gross Profit Margin
5. Remake Ratio
6. Annual CL Sales Ratio

Capture Rate

$$\text{Capture Rate} = \frac{\text{Pts who filled Rx}}{\text{Pts who received Rx}} \times 100$$

Average Capture Rate is 64% for frames and 68% for lenses

Benchmarks for Success

1. Capture Rate
2. **Multiple Pair Ratio**
3. Anti-reflective Coating Ratio
4. Optical Gross Profit Margin
5. Remake Ratio
6. Annual CL Sales Ratio

Multiple Pair Ratio

$$\text{Multiple Pair Ratio} = \frac{\text{Pts buying 2+ pairs}}{\text{Pts buying glasses}}$$

Average MPR for 2 pairs is 30%, 3 pairs is 6%

Benchmarks for Success

1. Capture Rate
2. Multiple Pair Ratio
3. **Anti-reflective Coating Ratio**
4. Optical Gross Profit Margin
5. Remake Ratio
6. Annual CL Sales Ratio

Anti-Reflective Coating Ratio

$$\text{ARC Ratio} = \frac{\text{Total \# of ARC lenses sold}}{\text{Total \# of lenses sold}}$$

Average ARC ratio is 40% in US
(90% in Europe/Asia)

Benchmarks for Success

1. Capture Rate
2. Multiple Pair Ratio
3. Anti-reflective Coating Ratio
4. **Optical Gross Profit Margin**
5. Remake Ratio
6. Annual CL Sales Ratio

Optical Gross Profit Margin

$$\text{Optical GPM} = \frac{\text{(Optical gross revenue - COGs)}}{\text{Optical gross revenue}}$$

Average office is 61% Optical GPM

Benchmarks for Success

1. Capture Rate
2. Multiple Pair Ratio
3. Anti-reflective Coating Ratio
4. Optical Gross Profit Margin
5. **Remake Ratio**
6. Annual CL Sales Ratio

Remake Ratio

$$\text{Remake Ratio} = \frac{\text{Remake of eyewear orders}}{\text{Total eyewear orders}}$$

Average practice Remake Ratio is 15%!
Healthy Goal = 5%

Benchmarks for Success

1. Capture Rate
2. Multiple Pair Ratio
3. Anti-reflective Coating Ratio
4. Optical Gross Profit Margin
5. Remake Ratio
6. **Annual CL Sales Ratio**

Annual Contact Lens Sales per Contact Lens Exam

$$\frac{\text{Collected revenue from CL sales}}{\text{CL exams performed in 12 mo}}$$

Average is only $152

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Which is the most important to your practice?

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Benchmarks for Success

1. Capture Rate
2. Multiple Pair Ratio
3. Anti-reflective Coating Ratio
4. Optical Gross Profit Margin
5. Remake Ratio
6. Annual CL Sales Ratio

Improve benchmarks, improve bottomline!

TIPS FOR APPLYING LEAN TO YOUR PRACTICE

01. Remember Parkinson's Law

02. Don't let a leak turn into a flood

03. Make sure your lean system is sustainable

REMEMBER
PARKINSON'S LAW

The demand for something matches its supply.

Just because you're doing well, doesn't mean you should stop leaning!

DON’T LET THE LEAK
TURN INTO A FLOOD

Leaning will expose wasteful individuals who will fight back against Lean.

Toxic Employees

Toxic Patients

MAKE SURE YOUR LEAN SYSTEM IS SUSTAINABLE

Do not enact too many changes at once

Humans are adaptable, but too many changes will cause a regression

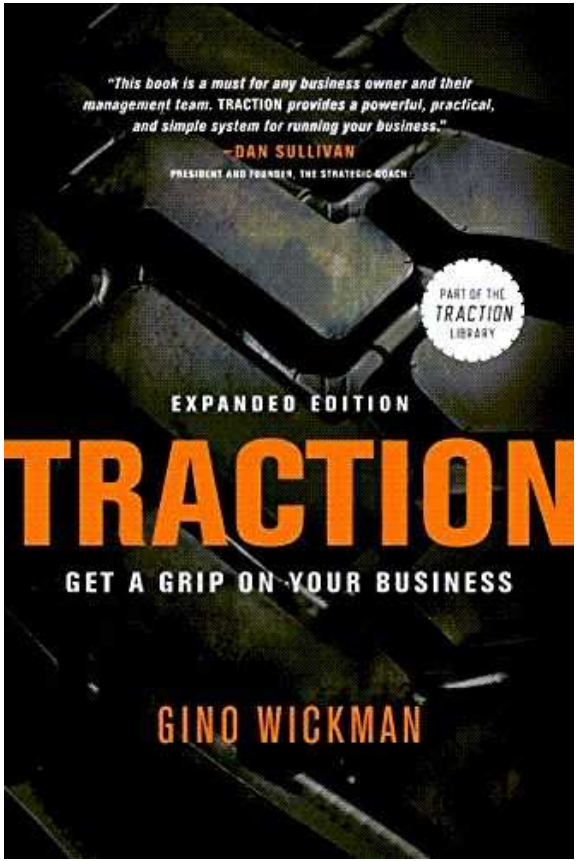
Implement changes in step-by-step form

1. Analyze if staff responds to changes in positive or negative way
2. Engineer future changes based on response

MAKE SURE YOUR LEAN SYSTEM IS SUSTAINABLE

Do not enact too many changes at once

Use the Traction method, implement changes over a **3–6-month period** in sequential form



IN CONCLUSION

01

Understand the process of lean

02

Understand the steps of inventory management

03

Apply this knowledge to boost relevant metrics

Lean Inventory Management plays a huge role in profitability and efficiency of a practice.

THANK YOU!

Aaron Neufeld, O.D.

aneufeldod@gmail.com

ODs on Finance

Los Altos Optometric Group

THE CONTACT LENS INSTITUTE