

Using the Principles of Throughput Accounting to Manage Your Initiative Portfolio

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**BREAKTHROUGH RESULTS FOR
GOVERNMENT AND BUSINESS**

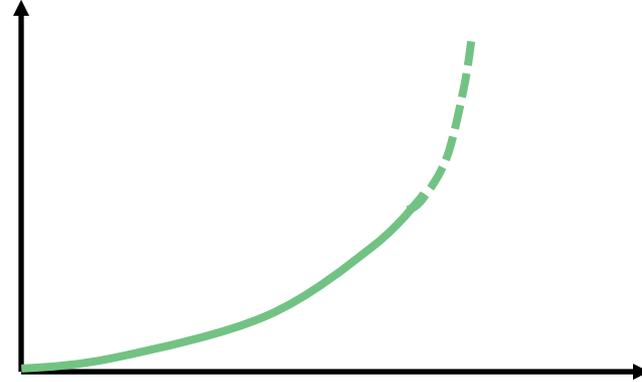
“Management Attention is
the ultimate Constraint.”



Dr. Eli Goldratt

Management Attention – Good Problem

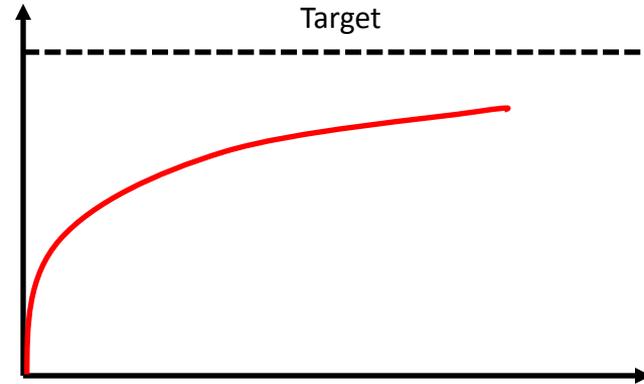
*Organization cannot keep up –
Opportunity rich environment*



- Hard to say “No” to any opportunity
- Everything seems to have a lot of potential
- No consensus amongst managers on what to pursue
- Pursue everything and struggle to keep up

Management Attention – Bad Problem

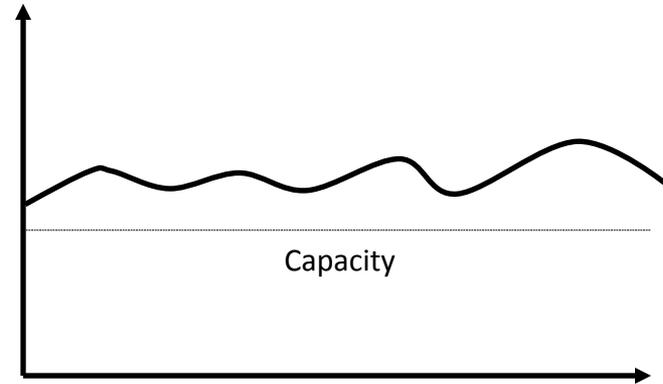
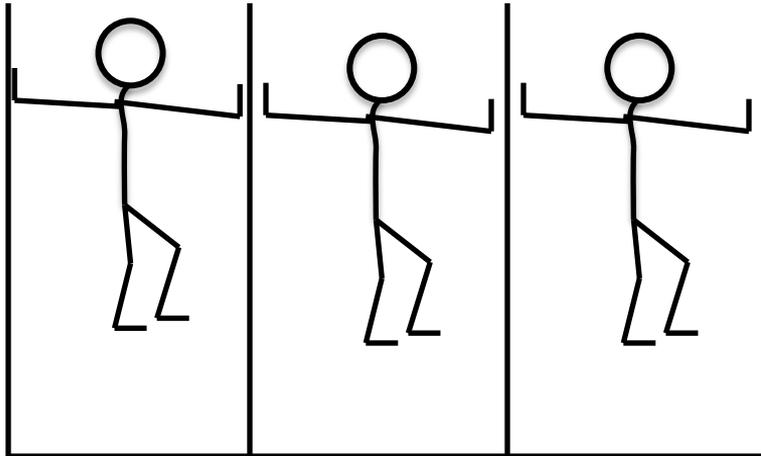
Organization cannot compete – is getting undercut on price



- Need to find more ways to gain efficiency
- Need more ways to make sales
- Marginal benefits with increasing efforts
- More and more initiatives

Management Attention – Ugly Problem

Organization has too many silos – hard to get cooperation and collaboration



- Need more visibility
- Need more communication
- Need strategy, vision, solution, etc.
- Need more software
- Need more measurements
-

TOC thinking helps to avoid mistakes

Type 1: Doing things that do not move a system closer to its goal

Mistakes of Type 1 result in losses that are evident

Type 2: Not doing things that help a system get closer to its goal

Mistakes of Type 2 result in huge losses which are hidden

When we are doing too much

Stop making Type 1 mistakes – STOP initiatives that do not help

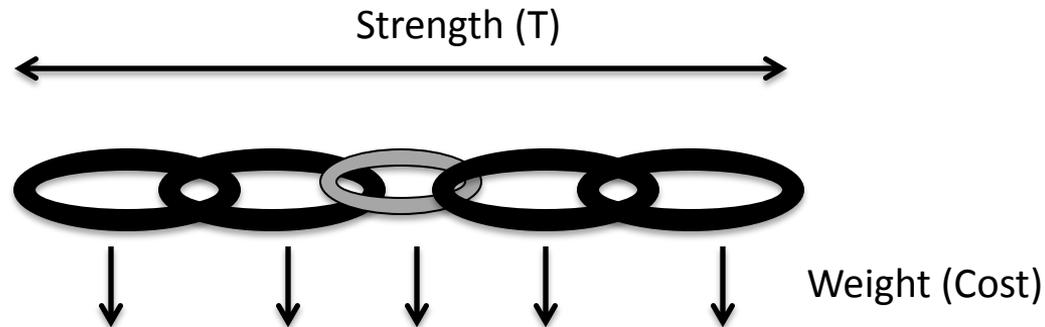
Stop making Type 2 mistakes – DO initiatives that solve core issues or capture the hidden treasure

Goals, costs and investment

Throughput is “getting” closer to your goal

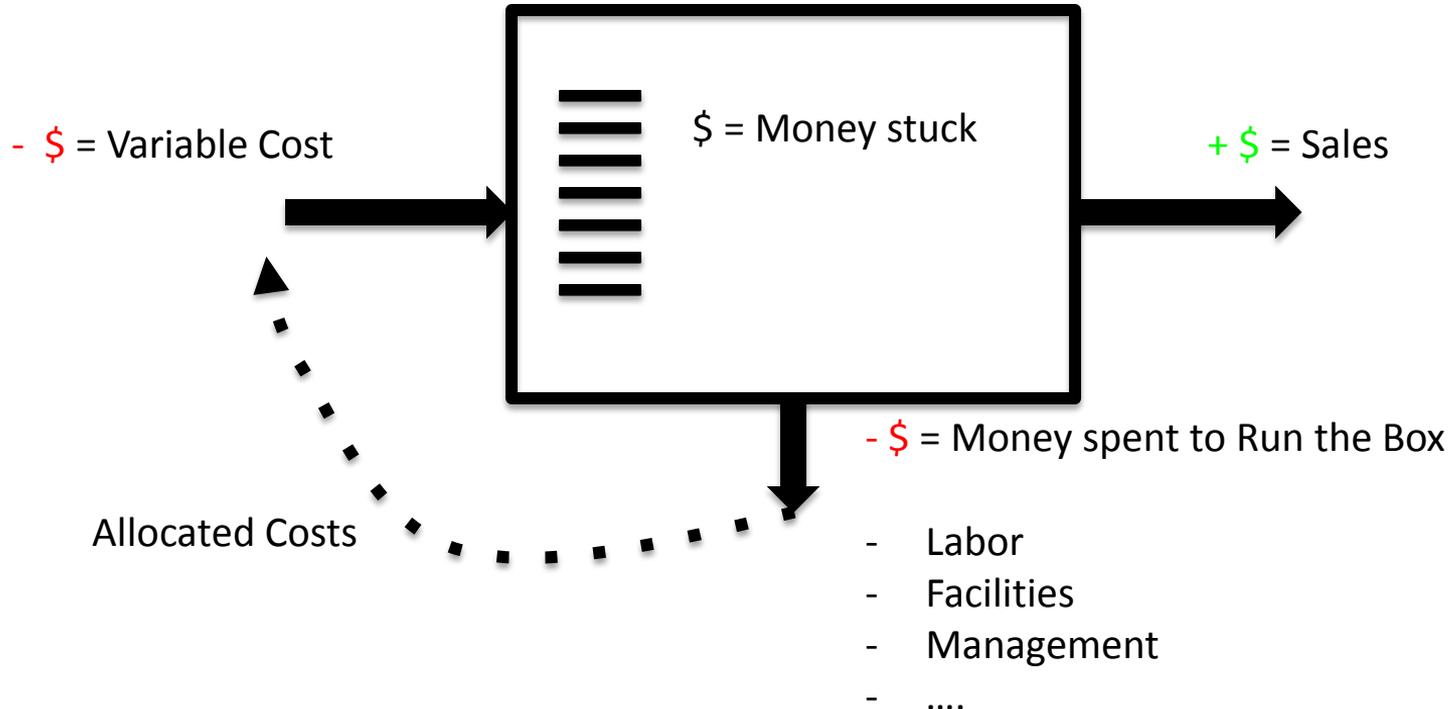
Cost is the effort or money or resources spent

Inventory is resources invested that are not yet converted into Throughput



Traditional Accounting

$$\begin{aligned}\text{Profit Margin} &= \text{Sales} - \text{Var. Cost} - \text{Allocated cost} \\ \text{Inventory (I)} &= \text{Money Stuck}\end{aligned}$$



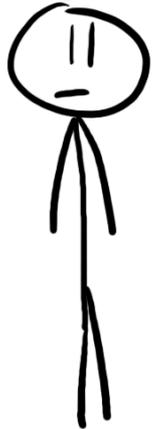
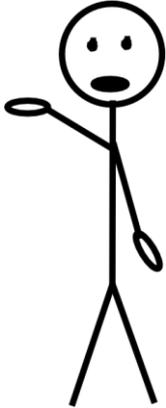
Peanut Sales

I have a great opportunity. I can add this rack of peanuts to my restaurant counter and make some more money. The bags cost 4 cents and I sell them for 20 cents. The more I sell the more I make

Not so fast! Let us do a careful accounting. We need to look at the cooks salary, your salary, the soap in the bathroom, the cleaning service and ... allocate their costs. Those peanuts do not cost 4 cents they cost 60 cents. You will make a significant loss!!

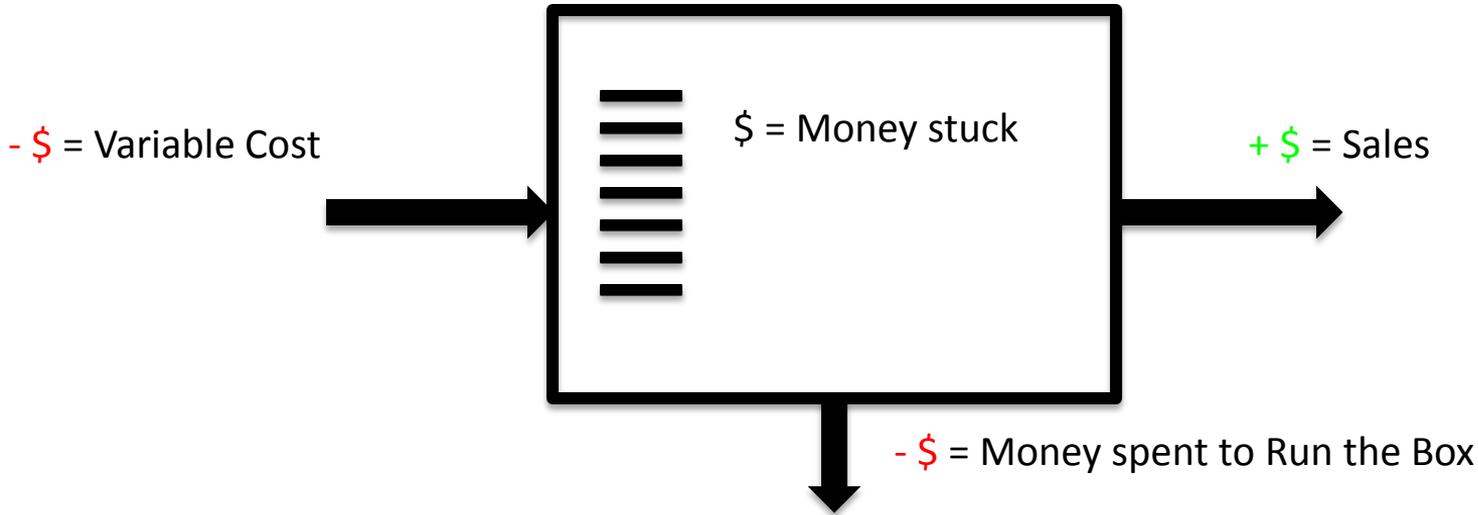
You need to find a way to cut your costs so you can sell peanuts – maybe reduce salary for the cook, cut the cleaning service to once a week, renegotiate rents ... and then sell them for 40 cents to make a profit

Wow! I did not realize this would be such a big problem...just to sell peanuts. Glad I got your help!



Throughput Accounting

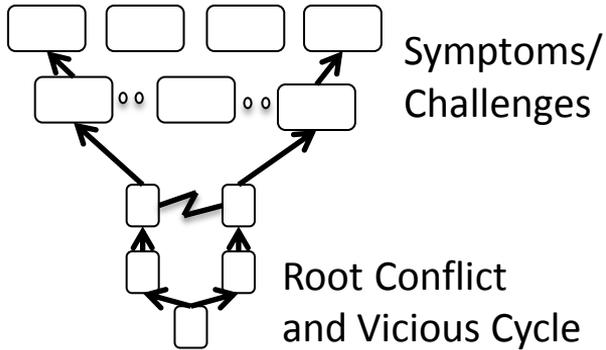
- T = Sales – Variable Cost
- I = Money Stuck
- OE = Money spent to Run the Box



Creating Focus

Focus

Root Cause Analysis



5 Focusing Steps

- **IDENTIFY** the System Constraint
- Decide how to **EXPLOIT** the constraint
- **SUBORDINATE** everything else to the above decision
- **ELEVATE** the system constraint
- Don't let inertia become the constraint, **GO BACK TO STEP 1**

Throughput Accounting

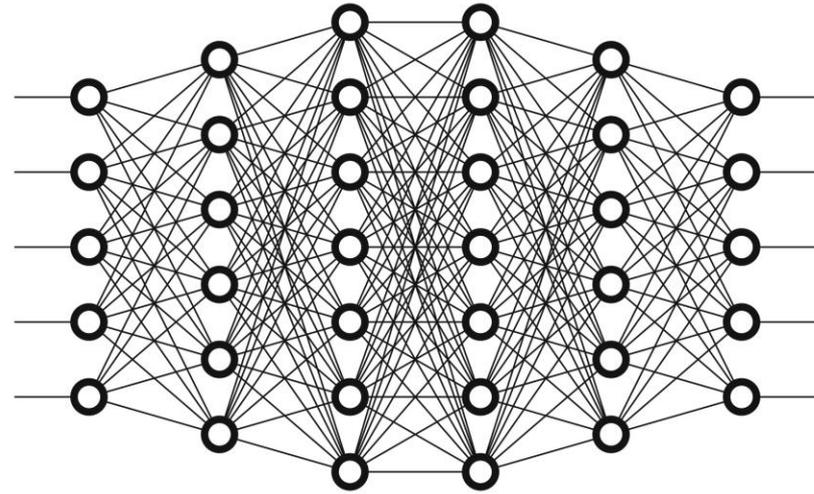
- Avoid the mistakes of cost accounting and allocation
- Focus on T, I and OE in that order
- Support management decisions with marginal impact analysis ΔT , ΔI and ΔOE

Solving the “Good” problem

“Value is created by removing a significant limitation for the customer, in a way that was not possible before, and to the extent that no significant competitor can deliver.”

Dr. Eliyahu M. Goldratt

Common Products and Limitations

The Google logo, consisting of the word "Google" in its signature multi-colored font (blue, red, yellow, green, red).

Steps for Evaluation of proposed ideas

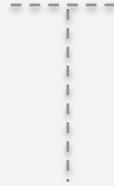
Would the customer gain exceptional value?



Toolbox to come up with breakthrough ideas
(avoiding incremental improvements)



Would the customer make the change?



Toolbox to strengthen, polish and filter ideas.
(avoiding 'too many' ideas syndrome)



How to transform value to business?



Toolbox to design business model and buy-in process.
(maintaining customer's eyes)



Solving the “Bad” problem

Data

- Captive organization (any profit / loss is transferred to parent company)
- 100 Direct Labor, 50 indirect (Planning, Material, Engineering, Management etc.)
- Direct Labor Salary – 50K/ year
- Indirect labor Salary – 100K/ year
- Hours = 1000 MHrs/direct labor/year

Total Cost = 50K x 100 + 100K x 50 = 10 million

MHr rate = 10 million / (1000 x 100) = 100\$/hr

Cost Reduction Scenarios

Goal: Business requires 10% reduction in Costs to compete

Cost Reduction Options:

- Option A: 10% reduction Man Hours + Direct labor reduced by 10%
- Option B: A contractor offers to do 10% of work at 80\$/hr. (20% lower MHR. rate than in-house MHR. rate). Reduce direct labor by 10%
- Option C: Increase efficiency by 10% & bring in work at 80 \$/hr labor rate

Real impact on costs – Option A

Cost Reduction Option A: 10% reduction in man hours and 10% reduction in direct labor

Impact of decision:

Net Revenue = 90% of 10 Million = 9 Million

Net cost = 50 K x 90 + 100 K x 50 = 9.5 million

Loss = 0.5 million

Hourly rate = 9.5 million / (90 x 1000) = 105.55 \$/hr

Real impact on costs – Option B

Cost Reduction Option B: A contractor offers to do 10% of work at 80\$/hr. (20% lower M Hr. rate than in-house M Hr. rate)

Impact of decision:

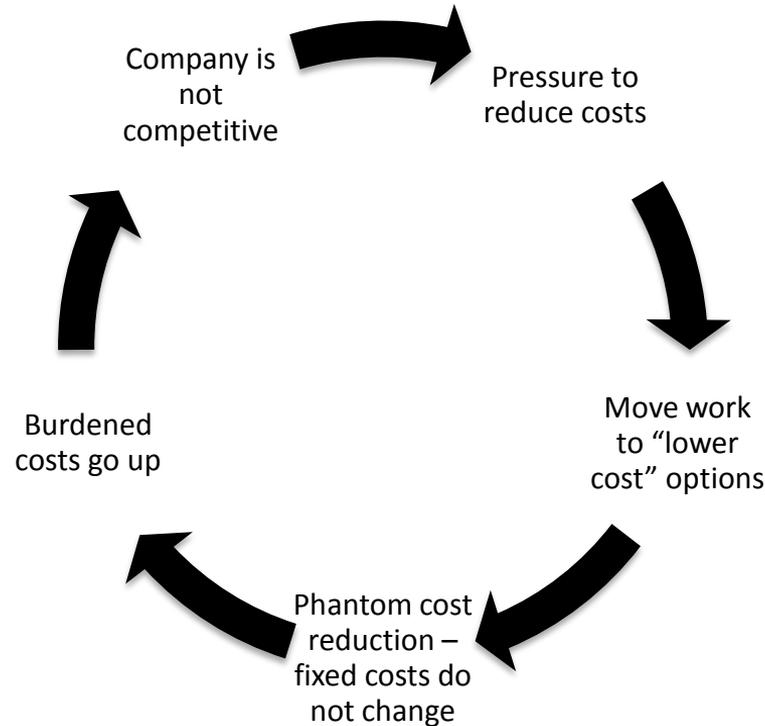
After outsourcing Internal Cost = $50\text{K} \times 90 + 100\text{K} \times 50 = 9.5$ million

Outsourcing cost = $10 \times 1000 \times 80 = 800\text{K}$

Total Cost = 9.5 million + 800 K = 10.3 million

In house M Hr rate = $10.3\text{ million} / (90 \times 1000) = 114.44\text{ \$/hr}$

Phantom Cost Reduction - Death Spiral



Real impact on costs – Option C

Cost Reduction Option F: Increase efficiency by 10% & bring in work at 80 \$/hr labor rate

Impact of decision:

Net cost = (50 K x 100 + 100 K x 50) = 10 million

Net Revenue = 10 + 0.8 million = 10.8 million

Profit = 0.8 million

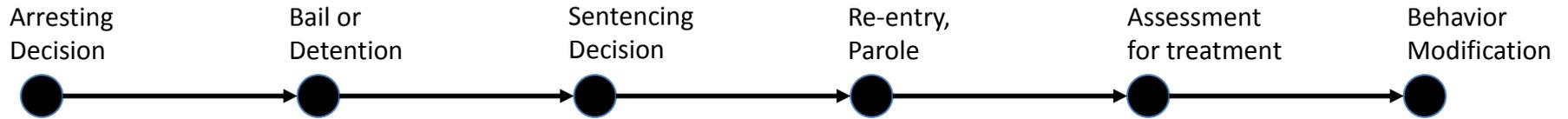
Effective Hourly Rate = (10 – 0.8 million) / (100 x 1000) = 92 \$/hr

Solving the Ugly problem: Example

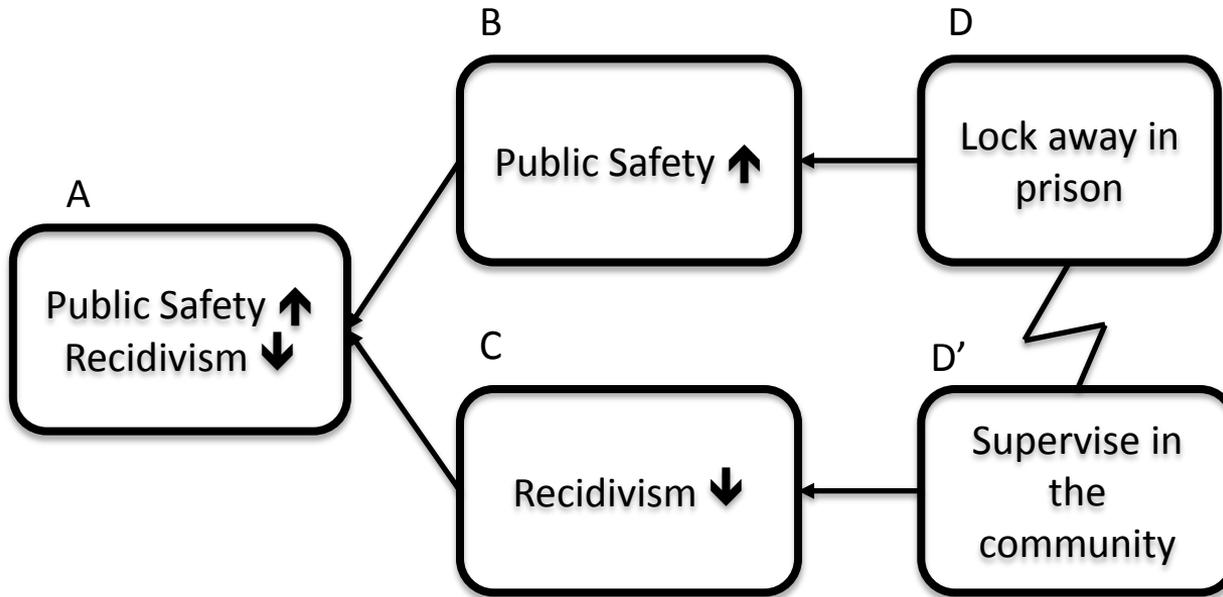
Challenges

- Decisions in criminal justice system are made by many different agencies
- Information about an “offender” are found in many different system
- Local counties, jails, prisons, drug treatment facilities and government agencies all act independently
- Things may be at cross purposes with one agency pushing prison time and another treatment
- Hard to get people to share data – policies, behavior and technical challenges

Data Integration – Criminal Justice



Data Integration – Criminal Justice



- Corrections and probation officers are the constraint in the system
- Probation officers create reports to evaluate risk by looking at all the data for an offender
- These reports are used by the judge to make an informed sentencing decision
- Creating these reports is time consuming and not “blue light”

Conclusion

“Management Attention is
the ultimate Constraint.”



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We have freedom of choice - the most important choice
we make is where to focus our attention