



COST/BENEFIT WORKSHEET

Many analytical tools are too complex or too simple. And we needed something that would also help everyone see the qualitative issues of risk and opportunity costs. The Center's Cost/Benefit Worksheet helps us decide together, and it's saved us from some impulsive decisions.

Introduction

The **Cost/Benefit Worksheet** will work for most decisions, though every decision-maker and organization differ in their need for analysis. The Worksheet will help you and others focus on the critical assumptions; it produces simple ROI and payback numbers. Like all analytical tools, it is meant to provide both rigor and objectivity.

INCREMENTAL COSTS		Refer to www.theindex.net/home for ideas or about errors				
A Initial investment		New machine, counter remodel, initial marketing				
B One-time cost savings		None				
C First year: labor costs	2019	No added labor				
D First year: other costs		Financing costs, inventory carry				
E Stabilized: labor costs	2020	No added labor				
F Stabilized: other costs		Financing costs, maintenance, inventory carry				
	Start-up management hours	200 Internal and external meetings				
	Opportunity costs ¹	1 Adding a second antique coffee maker				
		2 Spending money to seed a second location next year				
		3				
INCREMENTAL BENEFITS						
G First year revenue		8 drinks/shift, \$1.50/drink margin, 300 days				
H Stabilized revenue		12 drinks/shift, \$1.70/drink margin, 300 days				
I Annual labor savings		1.0 hours/shift, 2 shifts, 300 days, \$12/hour				
J Annual other cost savings		Save maintenance on old machine				
	Service improvement	Speed of service will increase substantially				
	Quality improvement	Risk to perception of quality. But can provide more drink typ				
	Competitive gain	No substantial effect				
	Social benefit	Minimal savings in water and waste				
RETURN						
First year income	\$7,200	G	less	C+D	\$10	
Stabilized income (annual return)	\$12,600	H	less	E+F+I+J	(\$8,400)	
Payback (months)	Net investment	\$28,000	A-B	divided by	Annual return	\$19,000
ROI	Annual return	\$19,050		divided by	Investment	\$28,000

Benefits

The Center's tools minimize omissions, improve communications and foster collaboration. The **Cost/Benefit Worksheet**:

- Helps quantitative and qualitative thinkers work together
- Provides a clear record of the decision
- Sets up a way to evaluate the investment after it's started up

Difficulty Difficult
Estimated time required 12-16 hours
Special skills Financial analysis, Excel

Instructions

The Question Map or Project Planner can bring big decisions into focus, but they also need quantitative analysis. The GM's Index of Terms will help you spot issues.

1. Be sure you've carefully articulated the idea and recorded your assumptions.
2. Thinking through the initial tasks helps you be realistic about the initial investment.
3. Run "what if" ("sensitivity") scenarios to test your idea.
4. Create more detailed analyses as needed, including for tax consequences.
5. Check that the initial idea, assumptions and risk are still correct.

Members can contact the Center for assistance: info@theindex.net

Make It Better

Member should share ideas for improving any of the Center's tools and how they're taught and formatted. It's also great to suggest new applications or brand-new tools.

ANTIQUE COFFEE

Cost/Benefit Worksheet

IDEA Replace antique coffee maker with new

Date 12/3/2018

Champion Brian Johansson

This worksheet will help managers refine ideas that will improve quality, control risks and provide new income.

- 1 Are we solving a problem or capturing an opportunity?
- 2 Will this help eliminate more than one step or service?
- 3 Have we tried something like this before? Has anyone?
- 4 Is an experiment possible?
- 5 How confident are we in our assumptions?

SUMMARY

See Question Map. Current antique espresso maker cannot keep up with demand, creating delays and dissatisfaction. A state-of-the-art machine will provide more capacity, but might upset some of our customers and run counter to our brand.

We'll know we're successful when...

We rarely have lines, people say the coffee still tastes great and staff are feeling less pressured.

Decision deadline

5/31/18

ASSUMPTIONS & RISKS

- 1 Risk: Many customers are upset that we don't have the beautiful old machine and believe the coffee doesn't taste as good.
- 2 Assume: We can't have both machines: not enough space, too complicated.
- 3 Assume: We can get an SBA loan and won't need to use all our line of credit or owner's capital.
- 4 Risk: That competitors will take advantage of our given up the machine that's part of our brand.
- 5

INITIAL TASKS

- 1 Survey customers using emails from repemption program.
- 2 Hold preliminary meeting with bank re: SBA loan
- 3 Engage customers in taste test with loaner machine (see if can get temporary hook-up)
- 4 Create detailed counter layout to make sure we don't create new bottleneck.
- 5

INCREMENTAL COSTS

Refer to The GM's Index of Terms for ideas about issues

A Initial investment	New machine, counter remodel, initial marketing	\$15,000
B One-time cost savings	None	\$0
C First year: labor costs	2019 No added labor	\$0
D First year: other costs	Financing costs, inventory carry	\$1,050
E Stabilized: labor costs	2020 No added labor	\$0
F Stabilized: other costs	Financing costs, maintenance, inventory carry	\$1,750
Start-up management hours	200 Internal and external meetings	
Opportunity costs	1 Adding a second antique coffee maker	
	2 Spending money to seed a second location next year	
	3	

INCREMENTAL BENEFITS

G First year revenue	8 drinks/shift, \$1.50/drink margin, 300 days	\$7,200
H Ongoing revenue	12 drinks/shift, \$1.70/drink margin, 300 days	\$12,600
I Annual labor savings	1.0 hours/shift, 2 shifts, 300 days, \$12/hour	\$7,200
J Annual other cost savings	Save maintenance on old machine	\$1,000
Service improvement	Speed of service will increase substantially	High
Quality improvement	Risk to perception of quality. But can provide more drink types	Medium
Competitive gain	No substantial effect	Low
Social benefit	Minimal savings in water and waste	Low

RETURN

First year income	\$7,200	G	less	C+D	\$1,050	=	\$6,150	
Ongoing income (annual return)	\$12,600	H	less	E+F-I-J	(\$6,450)	=	\$19,050	
Payback (months)	Net Investment	\$15,000	A-B	divided by	Annual return	\$19,050	=	9
ROI	Annual return	\$19,050		divided by	Investment	\$15,000	=	127%

Comments

While the numbers took good (we both earn and save more), we really need to make sure the customers won't be too upset about the new machine. After doing our research, we might find a good way to create acceptance.

DECISION Wait for market research, but proceed with bank meeting

12/3/2018