

Quantifying Risk For Innovation Teams

Sam McAfee — Neo Innovation

Scenario

San Francisco, 2011

Real estate industry

The Goal: Mobile application for service professionals

Team

Cross-functional — Product, Design, Engineering

Co-located and dedicated to the project

Agile experience, and reading *The Lean Startup*

Project

Customer Interviews

MVP Release

Frequent Iterations...

Results

\$300 app

5000 local professionals

50% conversion so far

Assessment

Cost of user acquisition

Fixed costs — payroll, support, overhead

Market limits and revenue growth plateaus

User retention rates, and life-time-value per user

Modeling Tools

Qualitative

Business Model Canvas

Personas

Value Dynamics Model

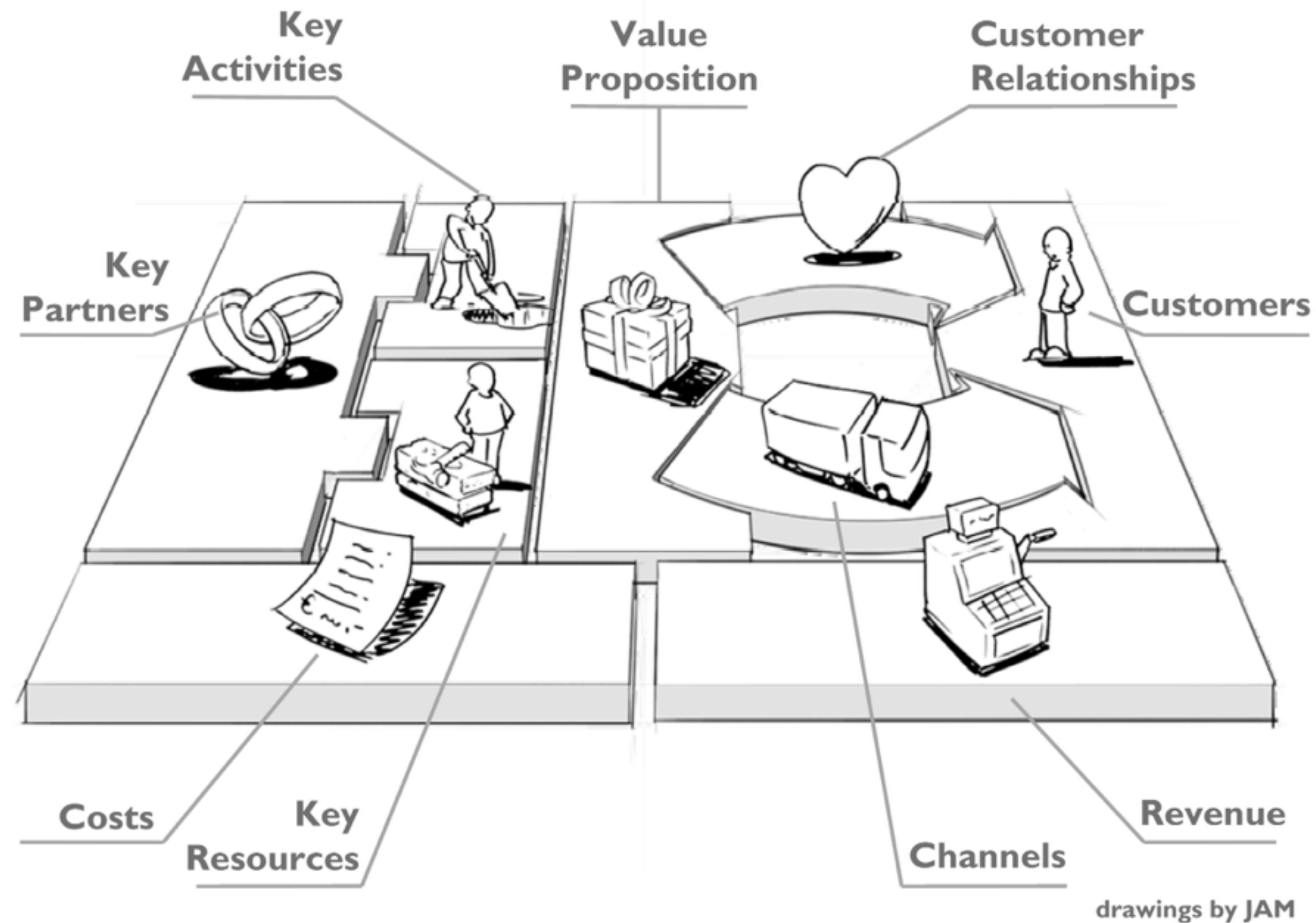
Quantitative

Metrics Frameworks


Cost of Delay Scenarios

Monte Carlo Simulation

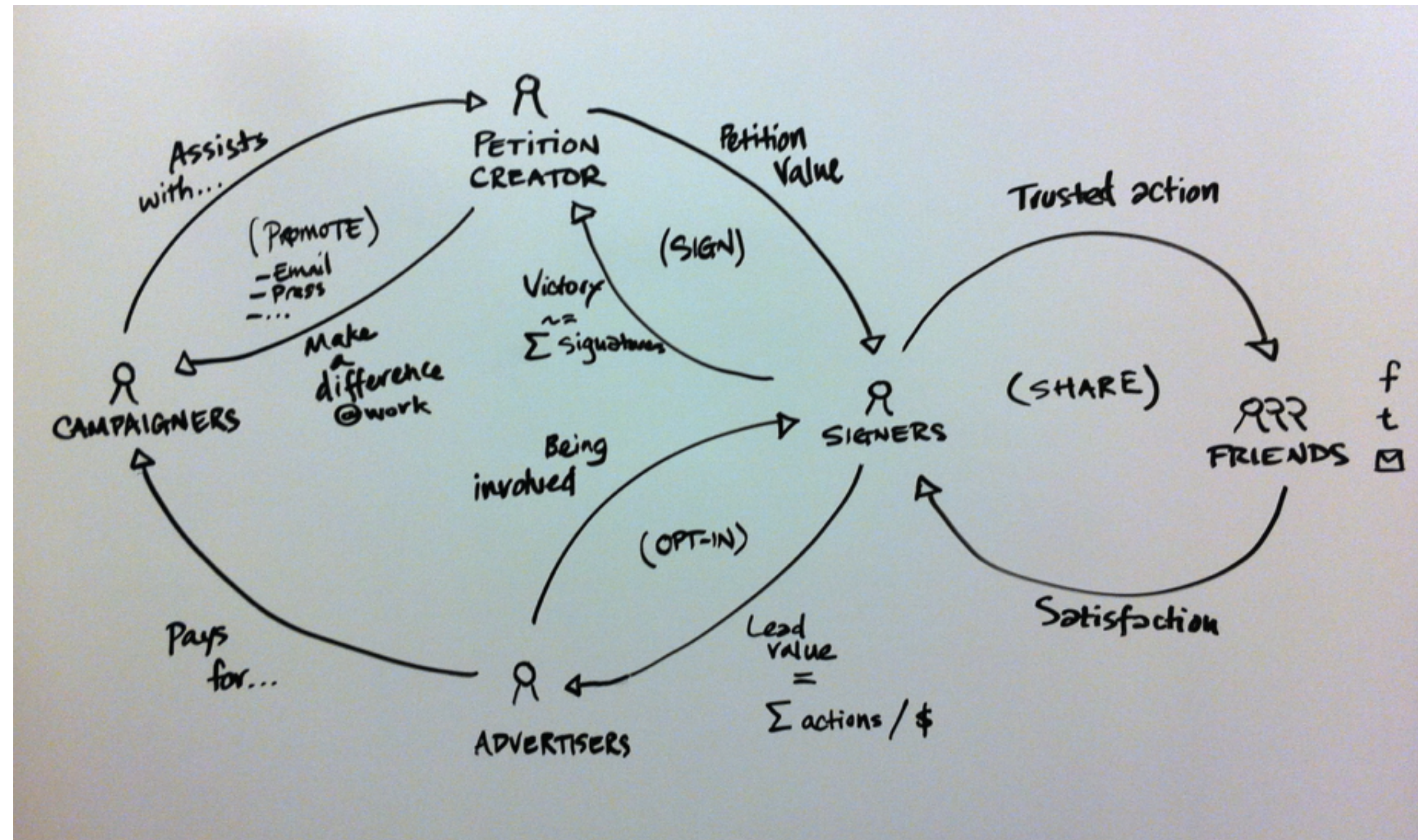
Business Model Canvas



Personas

<p>CMO / Head of Digital Marketing</p>  <p>ADAM</p> <p>Early 40s, SALES BACKGROUND LIVES IN SF, TRAVELS OFTEN</p>	<p>BEHAVIORS</p> <ul style="list-style-type: none">• EARLY TECH ADOPTER• MORE ADEPT THAN HIS PEERS <small>KNOWLEDGE</small>• READS STEVE BLANK, GODIN, SUSTER• EMPOWERS HIS TEAM TO WORK AUTONOMOUSLY
<p>PROBLEMS</p> <ul style="list-style-type: none">• GETTING HIS VOICE HEARD ON KEY PRODUCT DECISIONS• FINDING DESIGN/DEV TEAMS THAT CAN PLAY WELL W/ MARKETING• TRYING TO INTEGRATE DIGITAL INTO AN "ANALOG" COMPANY• NEEDS SUPPORT FOR A NEW WAY OF WORKING/ MARKETING	<p>GOALS</p> <ul style="list-style-type: none">• TO INTEGRATE DIGITAL STRATEGY AT HIS COMPANY W/ LESS FRICTION• TO GET MARKETING A SEAT AT THE PRODUCT TABLE• TO DRIVE RESULTS THROUGH OPTIMIZING DIGITAL CHANNELS

Value Dynamics



Metrics Frameworks

Lean Analytics Stages

Empathy

Stickiness

Virality

Revenue

Scale

Pirate Metrics

Acquisition

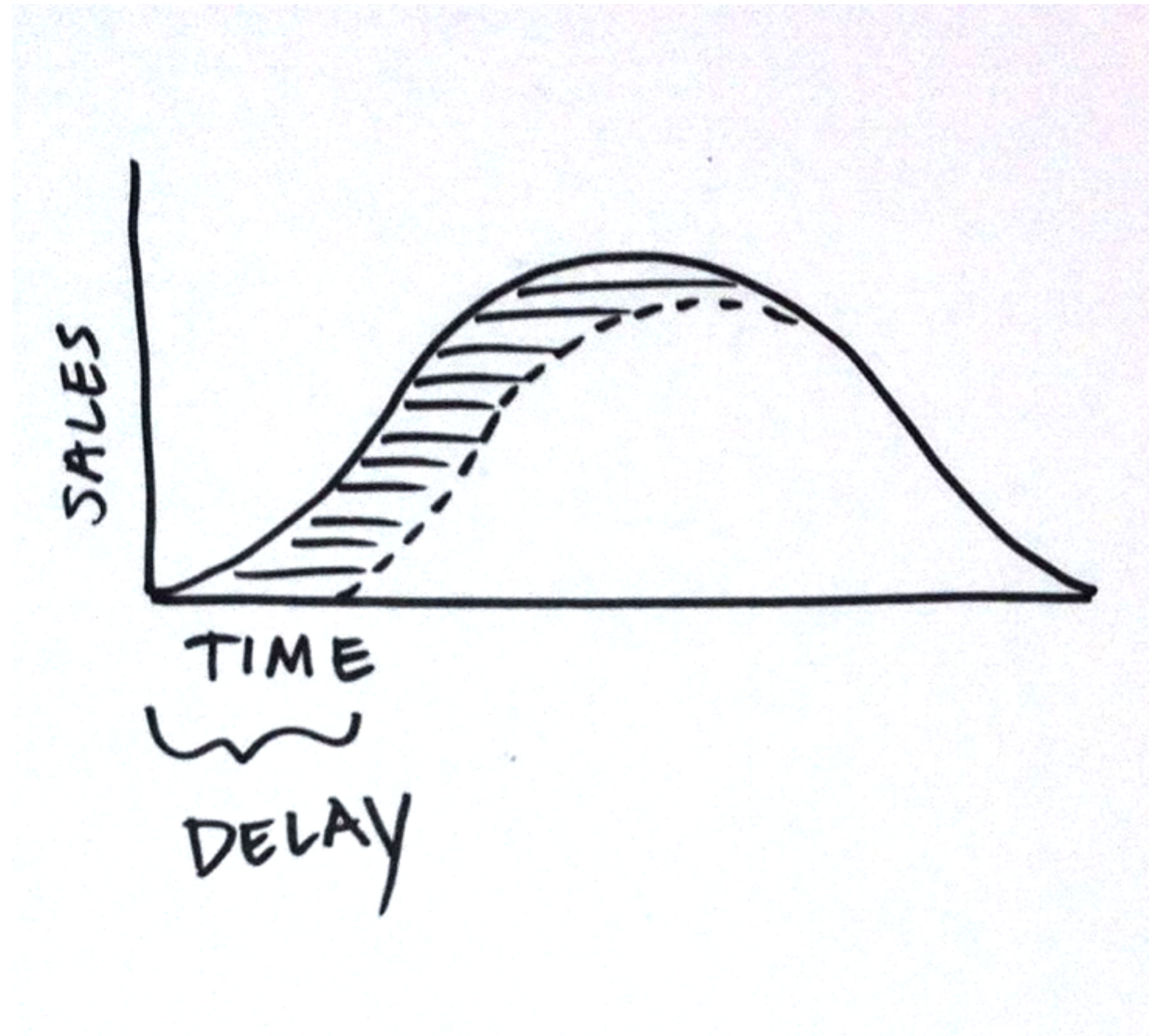
Activation

Retention

Revenue

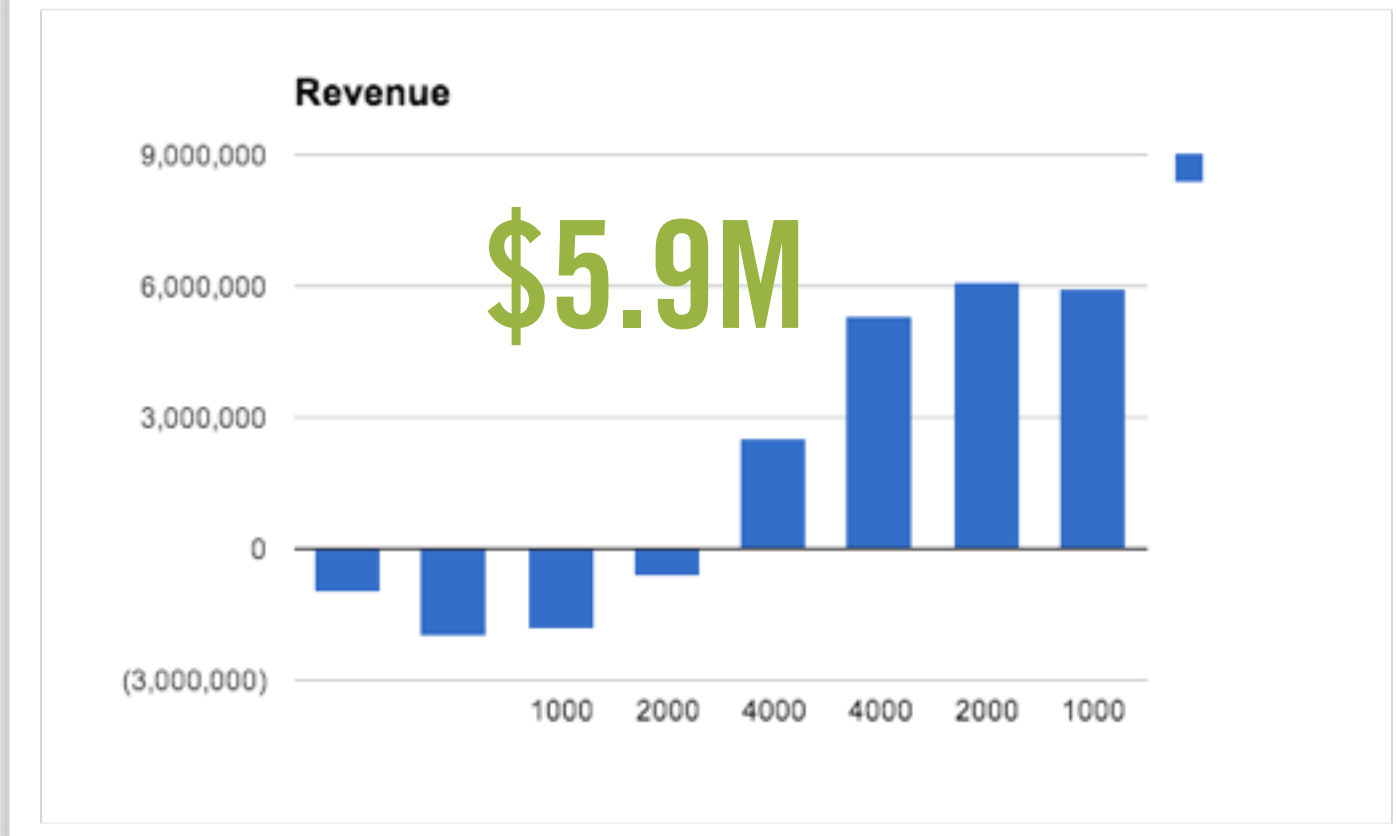
Referral

Cost of Delay Scenarios

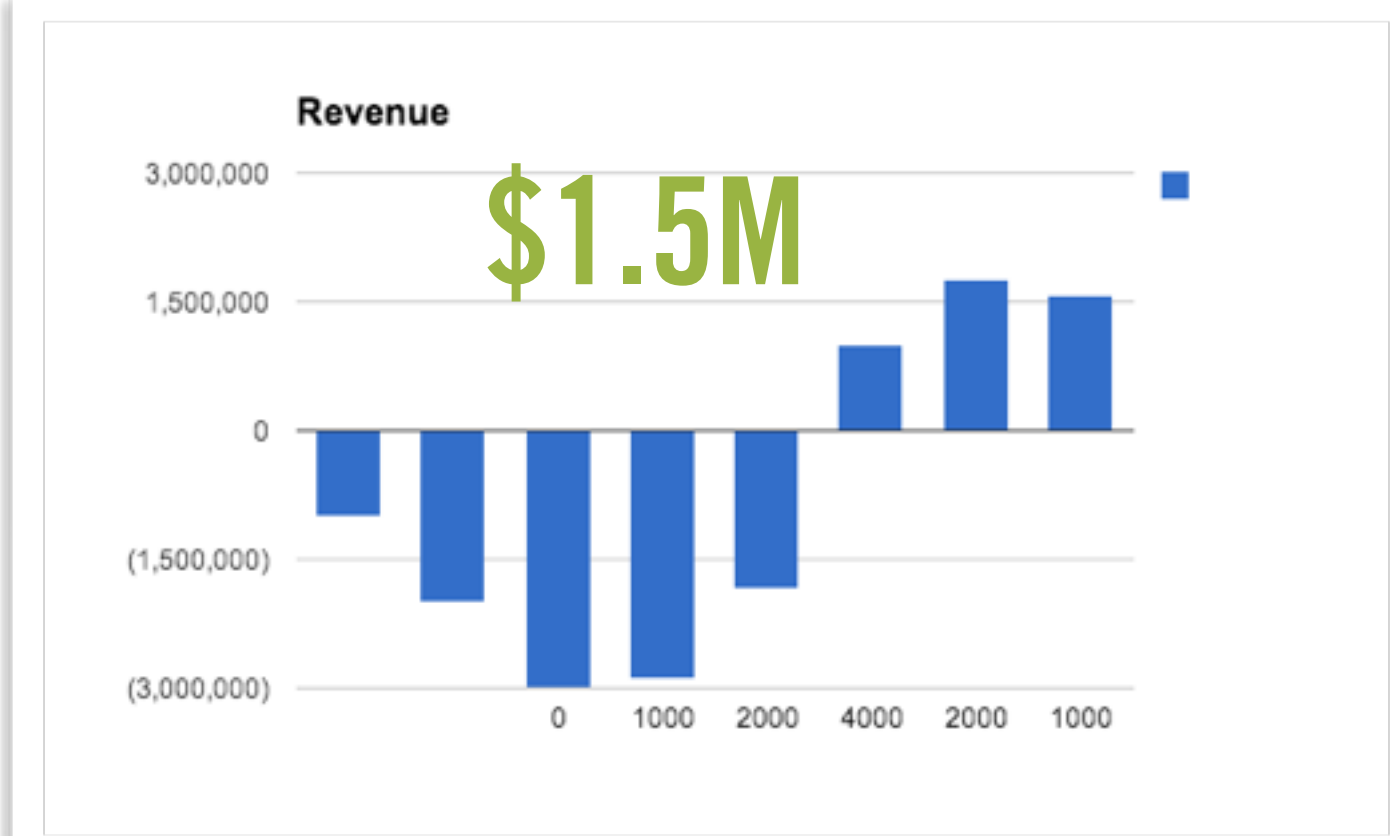


Cost of Delay Scenarios

Quarter	1	2	3	4	5	6	7	8	Total
Unit Sales	-	-	1000	2000	4000	4000	2000	1000	14000
Price Erosion	-4% / qtr								
Average Sales Price	\$3,000	\$2880	\$2,765	\$2,654	\$2,548	\$2,446	\$2,348	\$2,254	
Sales Revenue	0	0	\$2,764,800	\$5,308,416	\$10,192,159	\$9,784,472	\$4,696,547	\$2,254,342	35,000,736
Cost Improvement	-0.5% / qtr								
Unit Cost	\$900	\$896	\$891	\$887	\$882	\$878	\$873	\$869	
Cost of Sales			\$891,023	\$1,773,135	\$3,528,538	\$3,510,896	\$1,746,671	\$868,969	12,319,230
Gross Margin			\$1,873,778	\$3,535,281	\$6,663,621	\$6,273,577	\$2,949,876	\$1,385,374	22,681,506
Percent Gross Margin			67.77%	66.60%	65.38%	64.12%	62.81%	61.45%	
Fixed Operating Expenses	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	8,000,000
Variable Operating Expenses			\$691,200	\$1,327,104	\$2,548,040	\$2,446,118	\$1,174,137	\$563,586	8,750,184
Total Operating Expenses	\$1,000,000	\$1,000,000	\$1,691,200	\$2,327,104	\$3,548,040	\$3,446,118	\$2,174,137	\$1,563,586	16,750,184
Operating Profit	(1,000,000)	(1,000,000)	182,578	1,208,177	3,115,581	2,827,459	775,740	(178,212)	5,931,322
Cumulative Profit	(1,000,000)	(2,000,000)	(1,817,423)	(609,245)	2,506,336	5,333,794	6,109,534	5,931,322	

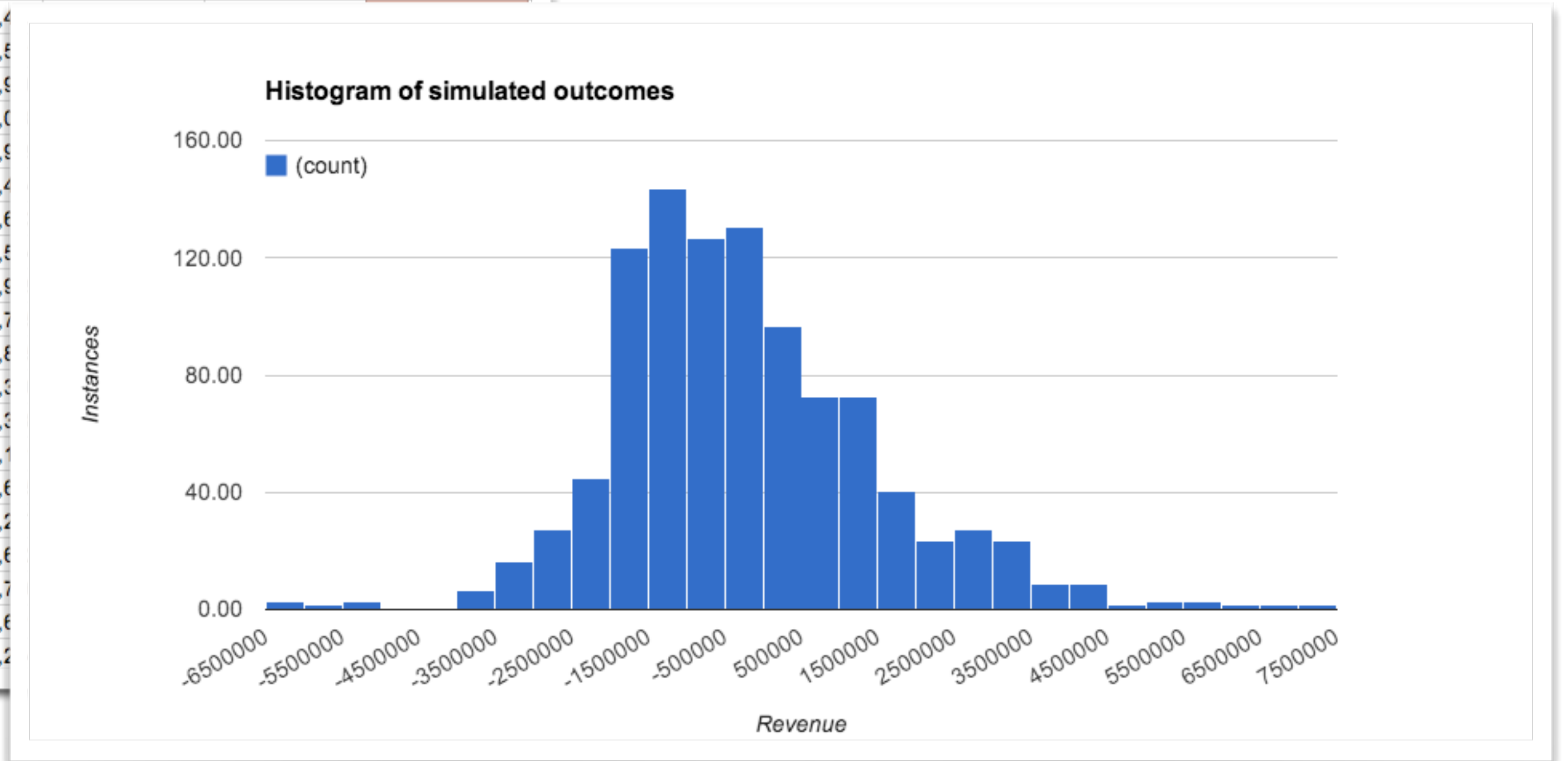


Quarter	1	2	3	4	5	6	7	8	Total
Unit Sales	-	-	0	1000	2000	4000	2000	1000	10000
Price Erosion	-4% / qtr								
Average Sales Price	\$3,000	\$2880	\$2,765	\$2,654	\$2,548	\$2,446	\$2,348	\$2,254	
Sales Revenue	0	0	\$0	\$2,654,208	\$5,096,079	\$9,784,472	\$4,696,547	\$2,254,342	24,485,649
Cost Improvement	-0.5% / qtr								
Unit Cost	\$900	\$896	\$891	\$887	\$882	\$878	\$873	\$869	
Cost of Sales			\$0	\$886,567	\$1,764,269	\$3,510,896	\$1,746,671	\$868,969	8,777,371
Gross Margin			\$0	\$1,767,641	\$3,331,810	\$6,273,577	\$2,949,876	\$1,385,374	15,708,278
Percent Gross Margin			#DIV/0!	66.60%	65.38%	64.12%	62.81%	61.45%	
Fixed Operating Expenses	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	8,000,000
Variable Operating Expenses			\$0	\$663,552	\$1,274,020	\$2,446,118	\$1,174,137	\$563,586	6,121,412
Total Operating Expenses	\$1,000,000	\$1,000,000	\$1,000,000	\$1,663,552	\$2,274,020	\$3,446,118	\$2,174,137	\$1,563,586	14,121,412
Operating Profit	(1,000,000)	(1,000,000)	(1,000,000)	104,089	1,057,790	2,827,459	775,740	(178,212)	1,586,866
Cumulative Profit	(1,000,000)	(2,000,000)	(3,000,000)	(2,895,911)	(1,838,121)	989,338	1,765,077	1,586,866	



Monte Carlo Simulation

	A	B	C	D	E	F	G	H	I	J
1		Channel	Acquisition	New Visitors	Activation	Customers	Revenue	Costs	Months	Profit
2	MIN	0	2%	0	10%	0	\$0	\$115,000	12.00	-\$1,380,000
3	MAX	75000	10%	4697.7	30%	1409.31	\$422,793	\$115,000	24.00	\$8,401,735
4		31960	6.99%	1,953.67	14.80%	289	\$86,755	\$115,000	13.82	-\$270,417
5		49889	2.24%	5,323.12	27.04%	1439	\$431,794	\$115,000	17.43	\$6,275,662
6		40129	5.85%	1,817.56	12.45%	226	\$67,898	\$115,000	16.71	-\$673,792
7		24937	4.87%	540.46	14.03%	76	\$22,742	\$115,000	18.18	-\$1,636,260
8		29540	9.32%	1,198.78	16.01%	192	\$57,580	\$115,000	25.00	-\$1,291,308
9		71299	5.76%	1,397.34	1.19%	17	\$4,980	\$115,000	12.17	-\$1,333,013
10		12140	7.82%	936.60	8.69%	81	\$24,4			
11		63715	1.49%	432.41	5.81%	25	\$7,5			
12		21114	6.79%	2,140.41	9.96%	213	\$63,9			
13		46718	3.45%	1,086.66	14.73%	160	\$48,0			
14		17507	5.15%	1,030.48	11.31%	116	\$34,9			
15		56034	10.45%	-352.63	16.46%	-58	-\$17,4			
16		38719	5.93%	3,323.51	18.42%	612	\$183,6			
17		61305	4.66%	3,252.67	12.05%	392	\$117,5			
18		75473	12.46%	56.91	17.51%	10	\$2,9			
19		52084	3.66%	3,820.26	9.92%	379	\$113,7			
20		27857	5.07%	4,397.97	12.65%	556	\$166,6			
21		27839	7.09%	3,019.88	2.13%	64	\$19,3			
22		28445	6.70%	5,182.33	16.04%	831	\$249,3			
23		28577	8.79%	2,129.99	26.16%	557	\$167,1			
24		6169	1.70%	5,159.14	12.96%	669	\$200,6			
25		40219	2.53%	2,316.40	16.01%	371	\$111,2			
26		62607	3.45%	3,991.45	15.34%	612	\$183,6			
27		30515	8.64%	2,502.93	19.54%	489	\$146,7			
28		30304	8.26%	2,785.46	17.07%	475	\$142,6			
29		10761	6.76%	3,695.44	20.41%	754	\$226,2			



Thank You!

Questions?

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