

Facebook/Instagram Channel	Month 13	Month 14, June 2015	Month 15, July 2016	Month 16	Month 17	Month 18
Revenue	30			30	30	30
Product/Services Cost (COGS)	18			18	18	18
Marketing/Acquisition Costs	0			0	0	0
Customer Profit	12			12	12	12
Probability of Being Active	60%			58%	55%	53%
Expected Profit	7.235154145			6.908848693	6.620058817	6.3367203
Present Value of Expected Profit	3.068411641			2.663660251	2.32029023	2.01907437
Discount Exponent	9			10	11	12
Churn Rate	4.57%	4.19%	4.19%	4.51%	4.18%	4.28%
LTV						
	LTV (Starting from Start of Year 2), Facebook/Instagram:		22.69792676	NOTES/AS		

Traditional Channels	Month 13	Month 14, June 2015	Month 15, July 2016	Month 16	Month 17	Month 18
Revenue	30			30	30	30
Product/Services Cost (COGS)	18			18	18	18
Marketing/Acquisition Costs	0			0	0	0
Customer Profit	12			12	12	12
Probability of Being Active	66%			63%	61%	59%
Expected Profit	7.861722738			7.583417754	7.333164968	7.069171029
Present Value of Expected Profit	3.33413789			2.923735826	2.570229585	2.252455745
Discount Exponent	9			10	11	12
Churn Rate	3.57%	3.15%	3.59%	3.54%	3.30%	3.60%
LTV						
	LTV (Starting from Start of Year 2), Other Channels:		<div>26.18020111</div>			
	2a) \$23			LTV for Customer Acquired via Facebook/Instagram		
	2b) \$26			LTV for Customer Acquired via Traditional Channels		
	2c) (\$23 + \$26) / 2 = \$49 / 2 = \$24.5			Average LTV across all channels		

Month 19, November 2016	Month 20, December 2016	Month 21	Month 22	Month 23	Month 24, April 2017	Month 25	Month 26, June 2017
		30	30	30	30	30	
		18	18	18	18	18	
		0	0	0	0	0	
		12	12	12	12	12	
		51%	48%	46%	44%	42%	
		6.072479063	5.796788514	5.535933031	5.284601671	5.066876082	
		1.758980881	1.52647559	1.325258353	1.150083295	1.002454421	
		13	14	15	16	17	
4.42%	4.35%	4.17%	4.54%	4.50%	4.54%	4.12%	4.56%

### SUMPTIONS:

1. For the churn rates of both Facebook/Instagram Channels and other Channels past the 36th Month, I used the average churn rates from each channel, respectively, from Month's 1-36, calculated by the function =AVERAGE(Churn Rates from Month 1 to Month 36)

Month 19, November 2016	Month 20, December 2016	Month 21	Month 22	Month 23	Month 24, April 2017	Month 25	Month 26, June 2017
		30	30	30	30	30	
		18	18	18	18	18	
		0	0	0	0	0	
		12	12	12	12	12	
		57%	55%	53%	52%	50%	
		6.848612893	6.633566448	6.396748126	6.192052186	5.970376717	
		1.983799206	1.746825373	1.531330643	1.347570966	1.181207205	
		13	14	15	16	17	
3.57%	3.45%	3.12%	3.14%	3.57%	3.20%	3.58%	3.33%

Facebook/Instagram, assuming months of no purchase are: Month 14, 15, 19, 20, 26, 27, 31, 32, 38, 39, 43, 44 Starting at Start of Year 2

Other Channels, assuming months of no purchase are: Month 14, 15, 19, 20, 26, 27, 31, 32, 38, 39, 43, 44 Starting at the Start of Year 2

Month 27, July 2018	Month 28	Month 29	Month 30	Month 31, November 2017	Month 32, December 2017	Month 33	Month 34
	30	30	30			30	30
	18	18	18			18	18
	0	0	0			0	0
	12	12	12			12	12
	40%	39%	37%			35%	34%
	4.836839908	4.63707842	4.441857418			4.241973835	4.048539828
	0.8699481729	0.7581993758	0.6602538019			0.5732203462	0.4973468167
	18	19	20			21	22
4.55%	4.54%	4.13%	4.21%	4.22%	4.35%	4.50%	4.56%

Month 27, July 2018	Month 28	Month 29	Month 30	Month 31, November 2017	Month 32, December 2017	Month 33	Month 34
	30	30	30			30	30
	18	18	18			18	18
	0	0	0			0	0
	12	12	12			12	12
	48%	46%	45%			43%	42%
	5.763801683	5.568985186	5.394119051			5.215034299	5.04033065
	1.036670396	0.9105735787	0.8018014258			0.7047105622	0.6191843258
	18	19	20			21	22
3.37%	3.46%	3.38%	3.14%	3.53%	3.42%	3.32%	3.35%

Month 35	Month 36, April 2018	Month 37	Month 38, June 2018	Month 39, July 2018	Month 40	Month 41
30	30	30			30	30
18	18	18			18	18
0	0	0			0	0
12	12	12			12	12
32%	31%	30%			28%	27%
3.882549695	3.718317843	3.556199185			3.4011489	3.252858808
0.4335959975	0.3775044425	0.3282229535			0.2853749388	0.2481205377
23	24	25			26	27
4.10%	4.23%	4.36%	4.36%	4.36%	4.36%	4.36%

Month 35	Month 36, April 2018	Month 37	Month 38, June 2018	Month 39, July 2018	Month 40	Month 41
30	30	30			30	30
18	18	18			18	18
0	0	0			0	0
12	12	12			12	12
40%	39%	38%			36%	35%
4.859382779	4.687846567	4.528459784			4.374492151	4.225759418
0.5426869168	0.4759364261	0.417958716			0.3670437451	0.3223311434
23	24	25			26	27
3.59%	3.53%	3.40%	3.40%	3.40%	3.40%	3.40%

Month 42	Month 43, November 2018	Month 44, December 2018	Month 45	Month 46	Month 47
30			30	30	30
18			18	18	18
0			0	0	0
12			12	12	12
26%			25%	24%	23%
3.111034164			2.975393075	2.845665937	2.721594902
0.2157295293			0.1875670199	0.163080998	0.141791515
28			29	30	31
4.36%	4.36%	4.36%	4.36%	4.36%	4.36%

Month 42	Month 43, November 2018	Month 44, December 2018	Month 45	Month 46	Month 47
30			30	30	30
18			18	18	18
0			0	0	0
12			12	12	12
34%			33%	32%	31%
4.082083598			3.943292756	3.809220802	3.679707295
0.2830653496			0.2485828434	0.2183009334	0.1917079106
28			29	30	31
3.40%	3.40%	3.40%	3.40%	3.40%	3.40%

Month 48, April 2019
30
18
0
12
22%
2.602933364
0.1232812772
32
4.36%

Month 48, April 2019
30
18
0
12
30%
3.554597247
0.1683544015
32
3.40%