Financial Projections for New Gatorade Technology

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Summarized Financial Projections

Financials Stated in Millions (MM)

	Year 1		Year 2		Year 3		Year 4		Year 5	
	$ (MM)	%	$ (MM)	%	$ (MM)	%	$ (MM)	%	$ (MM)	%
Revenue										
Total Revenue	**$22.53**	**100%**	**$49.01**	**100%**	**$82.94**	**100%**	**$128.08**	**100%**	**$188.47**	**100%**
Variable Expenses										
Total Variable Expenses	$8.60	38%	$18.23	37%	$30.09	36%	$45.33	35%	$65.08	35%
Gross Margin	**$13.93**	**62%**	**$30.78**	**63%**	**$52.85**	**64%**	**$82.75**	**65%**	**$123.39**	**65%**
Fixed Expenses										
Total Fixed Expenses	$11.27	50%	$18.08	37%	$27.41	33%	$41.33	32%	$59.36	31%
Operating Margin	**$2.66**	**12%**	**$12.70**	**26%**	**$25.44**	**31%**	**$41.42**	**32%**	**$64.03**	**34%**
Cannibalization										
Total Cannibalization	$2.96	13%	$6.32	13%	$10.45	13%	$15.76	12%	$22.64	12%
Net Contribution Margin	**-$0.31**	**-1%**	**$6.38**	**13%**	**$14.98**	**18%**	**$25.66**	**20%**	**$41.39**	**22%**

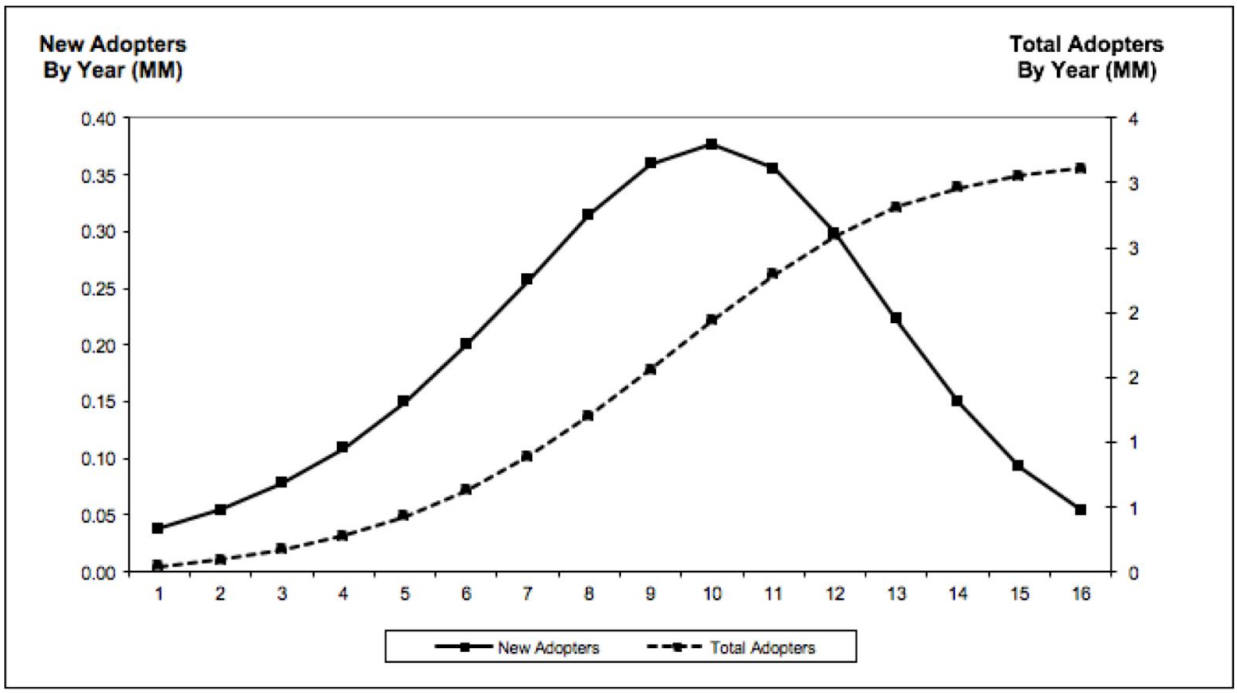
The summarized financial projections (*above*) for the new wearable Gatorade technology show lucrative opportunity for the product (*see Appendix A for full financial statement).* Revenues increase rapidly over the five-year period, primarily due to the anticipated high rate of adoption. The loss in year 1 can be largely attributed to launch and promotion costs, which are significant and extend over two years due to the novelty and technological nature of the product. With growing profit margins in years 2-5, the loss encountered in year 1 is readily recovered over the five-year period. Variable expenses make up around 36% of the product revenue, which is close to the industry average. Despite the significant launch costs encountered in years 1 and 2, fixed expenses for this product still experience slow growth over the five-year period. It would be wise for Gatorade's team to keep an eye on these costs and utilize their economies of scale in order to control these fixed expenses to their best ability. It is important to note that cannibalization accounts for an average 13% of the cost of this product, as some normal Gatorade sales will be lost as a result of this product entering the market.

Bass Forecast Analysis

The results of the Bass Forecast show there is a sizable market for this product (*see Appendix B*). Market size was calculated to be 3.18 million consumers. Excluding 70% of the total US population for age, inactivity, and lack of technological connectivity, I calculated the market size by segmenting the market into five segments and subsequently analyzing each segment's' size and adoption rate within the addressable market. The coefficient of innovation was determined by first evaluating p-values of similar products. A Portland State University study determined the p-value of wearable fitness devices to be 0.018 (Sengupta, 2181). Using this number as a starting point, I adjusted the p-value down to account for the fact that wearable fitness devices are more of

a disruptive technology than Gatorade's new product. I assumed a p-value of 0.012 due to the fact that this product is fairly easy to try, there is no lock-in to trying this product, it works with familiar existing drinks and technology, and it has broad appeal. The coefficient of imitation was determined by first evaluating q-values of similar products. The same Portland State University study on wearable technology determined the q-value of wearable fitness devices to be 0.524 (Sengupta, 2181). Using this number as a starting point, I adjusted the q-value down to account for the fact that wearable fitness technology is more of an observable and sharable product than Gatorade's proposed product. I assumed a q-value of 0.045 due to the fact that product usage is mostly observable by others, the product would be used in gyms and other populated areas, and customers are striving to keep up with their peers in the gym.

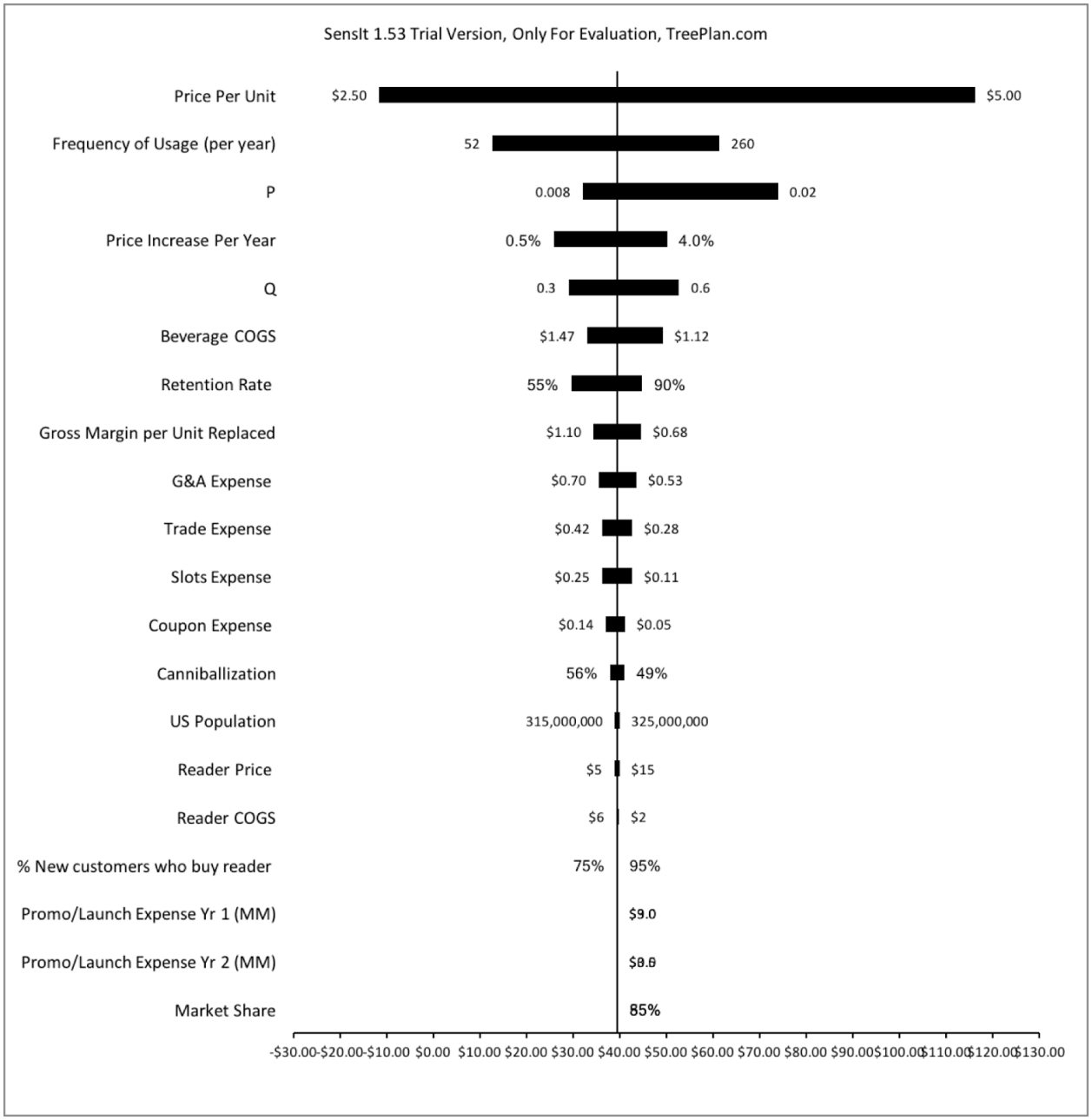
Adoption Curve Analysis



The adoption curve that results from the Bass Forecast (*above*) shows the product has a modest life cycle, likely due to the its mix of technological and psychological factors. The novelty and value of technology typically fades quickly as new solutions emerge, but consumers are always going to need something to drink. The number of new adopters peaks at 380,000 consumers in year 10, and the number of total adopters curve is just beginning to flatten around year 15. As a result of the high coefficient of innovation associated with this product, the adoption curve steadily increases over the first ten years. The number of total adopters breaks 1 million in year 8. While this may seem like a smaller market, it is important to consider that the new Gatorade product will be repeatedly purchased by each individual consumer, so a large number of adopters is not entirely necessary for this product to be successful. Nonetheless, the adoption curve illustrates the relatively short life cycle that is common among technology products. Gatorade must be aware that this market may be short-lived with increased technological innovation and competition likely

resulting in significant negative impact on the number of adopters in coming years. Gatorade must keep up with technological trends in order to keep the interest of this market.

Sensitivity Tornado Diagram Analysis



The sensitivity tornado diagram (*above*) illustrates which assumptions have the most impact on the financial projections for Gatorade's new product. The key drivers of profitability for this product are the price per unit and the subsequent price increase per year, frequency of usage, and the coefficients of innovation and imitation. The assumed price of the beverage is highly uncertain due

to lack of similar products on the market. It makes sense that the price of the drink is the number one key driver of profitability, as this constitutes product revenue. It is imperative that Gatorade does not lower the price too much. If Gatorade drops the price much lower than the $3.50 assumed price, profitability will decline and the product could very quickly incur a loss. Frequency of usage is also a key driver of profitability because this product heavily relies on repeat purchases to drive revenue. The market is highly segmented, with each segment using the product anywhere from 1-10 times per week, and it is difficult to estimate the average frequency of usage across segments. The coefficients of innovation and imitation have a significant impact on profitability because there is much uncertainty surrounding these numbers. No formal research was done to attain these numbers, and no similar products exist in the market so there were limited examples to model. These numbers are significant because they are used in conjunction to determine the number of customers who will adopt Gatorade's new technology, directly impacting revenue.

Recommendation

Based on the five-year financial projections presented, it is recommended that Gatorade proceed launch of this new product with much caution. Revenue of over $100 million in year 5 and growing margins make this product promising, but this analysis is highly sensitive to price. It is recommended that Gatorade perform more research to determine consumer purchase intent at different price levels in order to ensure that the product is optimally priced. It is also important that Gatorade closely monitors their competitive environment, as new, more sophisticated and functional technology will likely steal Gatorade's customers. To maintain market share, it is recommended Gatorade develop new products and services that integrate with their smart drinks. This will enable Gatorade to hold their market leader position and stay relevant in the ever changing technology market. Gatorade should also use their economies of scale to drive down their costs as much as possible. This would maximize profitability and free up more money to be spent on customer relations or related product development. Another major risk Gatorade needs to be aware of is the cannibalization effect this product will have on their existing products. Gatorade should anticipate a dip in sales of their existing products upon the release of this new product. It is important users of this analysis are aware it is based off many assumptions, and more vigilant research should be undertaken before the launch of this product. Should Gatorade follow through with the launch of this product, they will reap great benefits from a loyal customer base repeatedly purchasing their premium product.

Appendix A

Full 5-Year Pro-forma Income Statement

Financials Stated in Millions (MM)

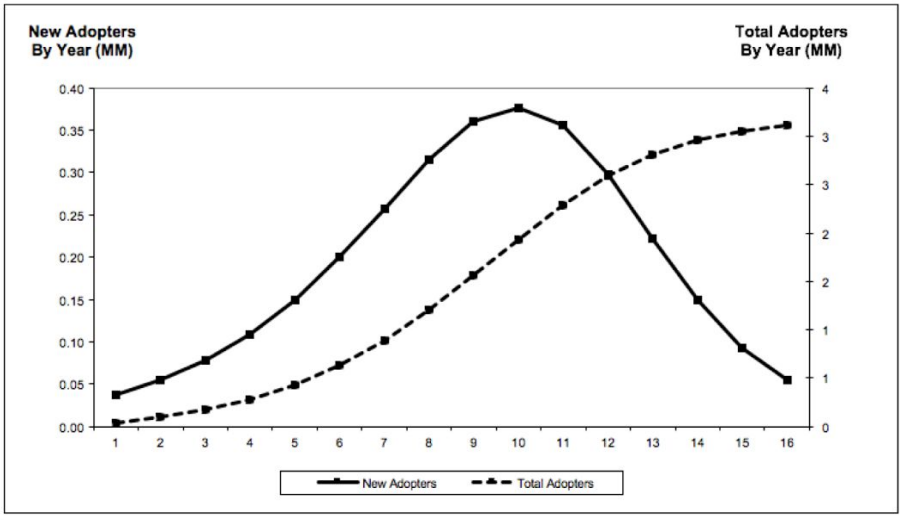
	Year 1		Year 2		Year 3		Year 4		Year 5	
	$ (MM)	%	$ (MM)	%	$ (MM)	%	$ (MM)	%	$ (MM)	%
Revenue										
Number of customers	0.04		0.08		0.13		0.20		0.29	
Frequency of usage	166.40		166.40		166.40		166.40		166.40	
Total unit volume beverage	6.35		13.53		22.37		33.74		48.46	
Effective price	$3.50		$3.59		$3.68		$3.77		$3.86	
Beverage Revenue	$ 22.21		$ 48.54		$ 82.28		$ 127.15		$ 187.20	
Number of new customers	0.04		0.05		0.08		0.11		0.15	
Reader price	$10.00		$10.00		$10.00		$10.00		$10.00	
Total unit volume reader	0.03		0.05		0.07		0.09		0.13	
Reader Revenue	$ 0.32		$ 0.46		$ 0.66		$ 0.92		$ 1.27	
Total Revenue	**$22.53**	**100%**	**$49.01**	**100%**	**$82.94**	**100%**	**$128.08**	**100%**	**$188.47**	**100%**
Variable Expenses										
Reader COGS	$0.16	1%	$0.23	0.5%	$0.33	0.4%	$0.46	0.4%	$0.63	0.3%
Beverage COGS	$8.44	37%	$18.00	37%	$29.76	36%	$44.87	35%	$64.45	34%
Total Variable Expenses	$8.60	38%	$18.23	37%	$30.09	36%	$45.33	35%	$65.08	35%
Gross Margin	**$13.93**	**62%**	**$30.78**	**63%**	**$52.85**	**64%**	**$82.75**	**65%**	**$123.39**	**65%**
Fixed Expenses										
Launch Promotion	$3.50	16%	$1.50	3%	$0.00	0%	$0.00	0%	$0.00	0%
Trade	$2.22	10%	$4.74	10%	$7.83	9%	$11.81	9%	$16.96	9%
Slots	$1.11	5%	$2.37	5%	$3.92	5%	$5.90	5%	$8.48	4%
Coupon	$0.56	2%	$1.18	2%	$1.96	2%	$2.95	2%	$4.24	2%
G&A	$3.89	17%	$8.29	17%	$13.70	17%	$20.66	16%	$29.68	16%
Total Fixed Expenses	$11.27	50%	$18.08	37%	$27.41	33%	$41.33	32%	$59.36	31%
Operating Margin	**$2.66**	**12%**	**$12.70**	**26%**	**$25.44**	**31%**	**$41.42**	**32%**	**$64.03**	**34%**
Cannibalization										
Units lost from other products	$3.33		$7.10		$11.75		$17.71		$25.44	
Gross margin per unit replaced	$0.89		$0.89		$0.89		$0.89		$0.89	
Total Cannibalization	$2.96	13%	$6.32	13%	$10.45	13%	$15.76	12%	$22.64	12%
Net Contribution Margin	**-$0.31**	**-1%**	**$6.38**	**13%**	**$14.98**	**18%**	**$25.66**	**20%**	**$41.39**	**22%**

Appendix B

Bass Model Forecast

Model Parameters	
Market Size (MM)	**3.18**
Innovation Coefficient (p)	**0.012**
Imitation Coefficient (q)	**0.450**

Year	New Adopters	Total Adopters
1	0.04	0.04
2	0.05	0.09
3	0.08	0.17
4	0.11	0.28
5	0.15	0.43
6	0.20	0.63
7	0.26	0.89
8	0.31	1.20
9	0.36	1.56
10	0.38	1.94
11	0.36	2.29
12	0.30	2.59
13	0.22	2.81
14	0.15	2.96
15	0.09	3.06
16	0.05	3.11



Works Cited

Sengupta, S., Kim, J., & Kim, S. D. (2015, August). Applying TRIZ and bass model to forecast fitness tracking devices technology. In Management of Engineering and Technology (PICMET), 2015 Portland International Conference on (pp. 2177-2186). IEEE.