



Conquistador Beer Case

Team 15

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Decision-Oriented Analysis Framework

Analytics Needs

Determine the market potential of a Conquistador beer distributorship for Southwestern Oregon and decide whether to take the distributorship

Analytics Goal

Measurement and control
Provide decision recommendation

Decision Criteria

Positive net present value

Decision Process

Analyze the beer market and client's financial capability, forecast revenue and cost, and choose between decision alternatives

Analytics Constraints

Limited budget (\$15,000), time constraints, and data availability

Data Selected and Analysis Process

**Revenue Estimate
(Bottle & Can + Keg)**



Cost Estimate



Net Profit

(A + B + C →

Estimate total consumption of Conquistador in Southwestern Oregon Market



H) →

Estimate retailer consumption of Conquistador based on their indicated probability of buying



I →

Estimate price per gallon of Conquistador based on assumption regarding annual price increase rate



F →

Get the cost of sale (80.3%*revenue) as total variable cost, plus fixed cost and tax already available to get total cost

* Study D reflects an estimation of retailer market size in Southwestern Oregon market.

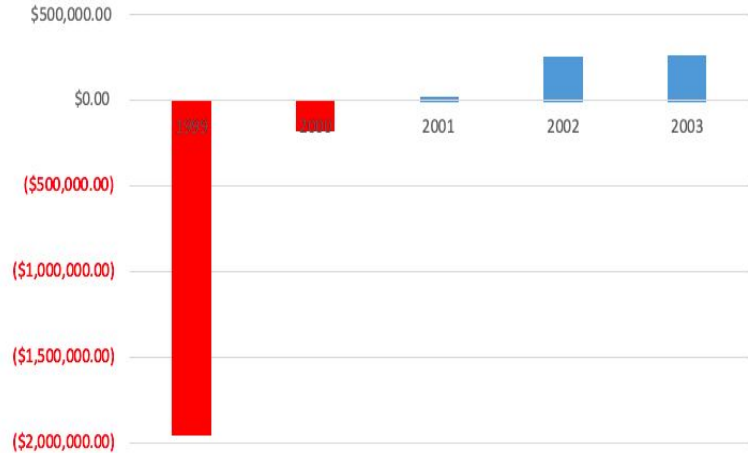
* See appendix slide 5 for detailed calculations.

Key Assumptions and Recommendation

Key Assumptions

1. Probabilities of real purchase intention:
81% - certainly will, 27% - maybe will,
9% - not sure, 3% - maybe will not, 1% -
certainly will not (Source: Ipsos)
2. Conquistador's Wholesale price: 16%
higher than \$3.18 with an annual
increase rate of 2.7%
3. Interest rate for loan: 7.44% and annual
discount rates for this period

NPV Value by Year



Our analytic process indicates that the annual NPV keeps increasing and becomes positive only after year 2000, while still not able to cover initial losses. Consequently, we got a negative aggregated NPV from 1999 to 2003, which means that Larry should not apply for the distributorship with short-term perspective.

Appendix - Calculations

Annual Growth Rate of Beer Consumption	1.62%
Annual Wholesale Price Growth rate	2.70%
Per Capita Beer Consumption of Oregon	47.50

Year	1999	2000	2001	2002	2003	Assumptions
Per Capita Beer Consumption	48.27	49.05	49.84	50.65	51.47	Using calculated growth rate of 1.62%
Population	45,500	52,800	63,600	75,500	87,100	
Total Consumption	2,196,207	2,589,786	3,169,971	3,823,960	4,482,835	
market share	25%	30%	33%	35%	36%	
Total Consumption for Conquistador (Consumer)	549,052	776,936	1,046,091	1,338,386	1,613,821	
Total Consumption for Conquistador (Retailer)	405,167	573,332	771,952	987,649	1,190,903	Assume purchase intention: 81% - certainly will, 27% - maybe will, 9% - not sure, 3% - maybe will not, 1% - certainly will not.
Bottle Wholesale Data						
price per pack (0.56 gallon/ pack)	\$3.69	\$3.79	\$3.89	\$4.00	\$4.10	Assume Conquistador's price is 16% higher than \$3.18 (highest price) because of premium brand positioning assume price increase with 2.7% (calculated average increase rate)
Price per gallon	\$6.59	\$6.76	\$6.95	\$7.14	\$7.33	
Sales quantity (gallon)	303,875	429,999	578,964	740,736	893,177	
Revenue	\$2,001,670.61	\$2,908,914.25	\$4,022,363.66	\$5,285,180.29	\$5,427,828.80	
Keg Wholesale Data						
Price per gallon	\$2.96	\$3.04	\$3.13	\$3.21	\$3.30	Assume annual price increase is 2.7%
Sales quantity (gallon)	101,292	143,333	192,988	246,912	297,726	
Revenue	\$300,250.59	\$436,341.27	\$603,365.97	\$792,799.55	\$981,765.35	
Total revenue	\$2,301,921.20	\$3,345,255.52	\$4,625,729.62	\$6,077,979.84	\$6,409,594.14	Total revenue from bottle and keg beer
Initial Investment	\$1,600,000.00	\$0.00	\$0.00	\$0.00	\$0.00	
Total Fixed Cost	\$654,000.00	\$654,000.00	\$654,000.00	\$654,000.00	\$654,000.00	
Total Variable Cost	\$1,848,442.73	\$2,686,240.18	\$3,714,460.89	\$4,880,617.81	\$5,146,904.10	
Loan Interest	74,400.00	74,400.00	74,400.00	74,400.00	74,400.00	Assume interest rate for loan is 7.44%
Tax	\$85,085.11	\$120,399.74	\$162,109.93	\$207,406.21	\$250,089.59	
Total Cost	\$4,261,927.84	\$3,535,039.92	\$4,604,970.81	\$5,816,424.02	\$6,125,393.69	
Net Profit	-\$1,960,006.63	-\$189,784.40	\$20,758.81	\$261,555.82	\$284,200.46	
Annual Discount Rate	4.62%	5.73%	3.41%	1.17%	2.10%	Fed Annual discount rate
NPV	-\$1,960,006.63	-\$179,499.10	\$19,412.31	\$252,585.92	\$261,530.17	
Total NPV	-\$1,605,977.33					

Appendix - References

- "Ipsos Encyclopedia - Purchase Intentions." Ipsos, www.ipsos.com/en/ipsos-encyclopedia-purchase-intentions.
- "The U.S. Brewing Industry." Google Books, Google, books.google.com/books?id=C0KUJ0F3XB4C&pg=PA106&lpg=PA106&dq=how+much+does+price+premium+beer+brands+higher+than+average+brands+in+1999&source=bl&ots=2f09v4kfKf&sig=ACfU3U1ghqD3uXdOUAHFhJdUS-JC-V-WTA&hl=zh-CN&sa=X&ved=2ahUKEwi_pITUgZPnAhXuguAKHZy9DjYQ6AEwCXoECAgQAQ#v=onepage&q=how much does price premium beer brands higher than average brands in 1999&f=false.
- "Discount Rate (DISCONTINUED)." FRED, 7 June 2006, fred.stlouisfed.org/series/MDISCRT#0.
- "30-Year Fixed-Rate Mortgages Since 1971." *Freddie Mac*, www.freddie.mac.com/pmms/pmms30.html.