California State University
Channel Islands

BUS 504 - Accounting & Finance

Financial Analysis between Heineken vs Boston Beer

Report Compiled by
Rihan Stephen Pereira, MSCS Graduate 2018-2019

February 5, 2019

Contents

1 Introduction & Background Information

Boston Beers and Heineken Beers are alcoholic beverage companies and are among many S & P 500 companies actively operating in the beer industry . Boston Beers was founded in 1984 whereas Heineken beers dates back to 1873. Heineken is a Dutch beer brand originating from Netherlands. It has a strong presence in the international market, whereas Boston Beers operates and benefits mostly within U.S alone. Even though it does sell its products outside U.S, it does so on a small scale. Heineken Beers, as of 2017, has grown to posses employee base of 130,000 operating in more than 70 countries, serving millions of consumers around the world. It produces beverages of different craft and variety like Birra Moretti Regionale, Brand IPA which fall under their locally crafted products, Low to no-alcohol line and also cider drinks. Boston Beer offers similar product lines, like, for instance, Samuel Adams being its largest brand in its Better Beer category, Twisted Tea as their Flavored Malt Beverage(FMB), and finally Angry Orchard ciders comprising hard cider drinks. Coming to performance, Boston Beers revenue as of Dec, 2017, was \$863 million and \$99 million in Net Profit (SAM annual report, 2017 [3]), while that of Heineken was EUR 21.9 Bn(21,908 million) in revenue and EUR 2.2 Bn(2,247 million) in Net profit (Heineken annual report, 2017 [5]). The most recently reported common stock price as of Q3, 2018 for Heineken was \$49.50 and that of Boston Beers was \$303.60.

2 | Income Statement Analysis

2.1 Profit Margin

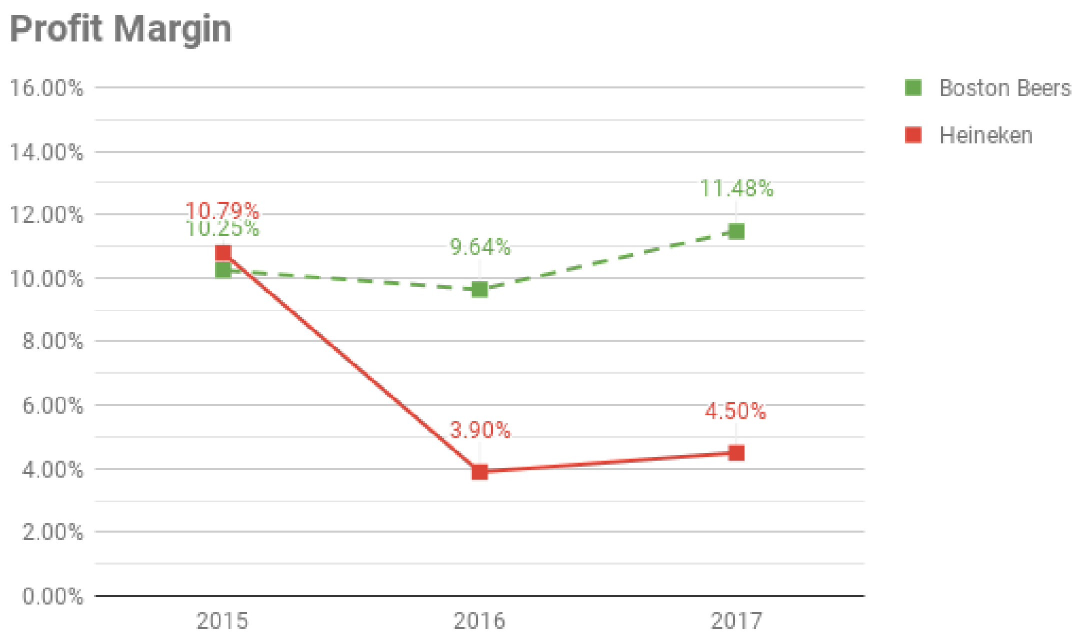

Figure 2.1: Profit Margin calculated by referring to [3] Boston Beer Annual Report 2017, [6] Heineken Annual Report 2017

Profitability is the most important aspect when analyzing financial statements. Profit margin measures the ability of the company to generate profit from sales. Above figure(data gathered from [3] and [6] respectively) shows the profit margin ratio for Boston Beers and Heineken Company. Boston beers profit margins decreased to 9.64% in 2016 and increased by approx. 2% from its previous year, growing 11.48% in the year 2017. As per company's income statement, the gain was mainly because provision for income tax was far less in 2017 compared to previous year($17 million vs $49 million).

Heineken profit margins were approx. on the same lines as Boston Beers in 2015 at 10.79% but suffered significant decreased in 2016 at 3.90% followed by slight improvement(4.50%) in the year 2017. According to [6] Heineken annual report 2017, the loss was mainly due to foreign currency translations since they have breweries operating in more than 70 countries. The amount they lost was €908 million in 2016 compared to €43 million in 2015.

2.2 Horizontal Analysis on Income Statements

Horizontal Analysis			
Year	**2017**	**2016**	**2015**
Boston Beers	13.38%	**-11.56%**	9.52%
Heineken	21.48%	**-66.50%**	24.25%

Figure 2.2: Horizontal Analysis is calculated from [3] Boston Beer Annual Report 2017, [6] Heineken Annual Report 2017

Horizontal Analysis was conducted on Comprehensive Income statements of both firms. This technique reveals changes in account balances from one period to next. For Boston Beers, main reasons for negative net income growth in 2016 was due increased in General and administrative expenses by approx. \$7 million compared to previous year and \$235,000 loss on sale of assets. In the year 2017, even though sales generated were quite low compared to previous year, provision for Income taxes fell to \$17 million compared to \$49 million in 2016, This saved Boston Beers lot of money and had an positive net income. Also, both companies has to spent significant amount of money on income taxes. For Heineken, in year 2016, the sales were lower compared to year 2015, while for Boston Beers, provision for income tax account reduced the net income causing negative gain in income from year 2015 to 2016.
Heineken net income dropping too low -66% in 2016 compared to previous year was mainly because of actuarial loss €252 million and volatile foreign market - money lost in currency translation differences approx. €908 million compared to previous year €43. In the year 2017, although loss from currency translation increased, company's net sales, side income, actuarial gains contributed to uplifts in net income driving positive profit margins - 21.48%.

2.3 Earnings per Share

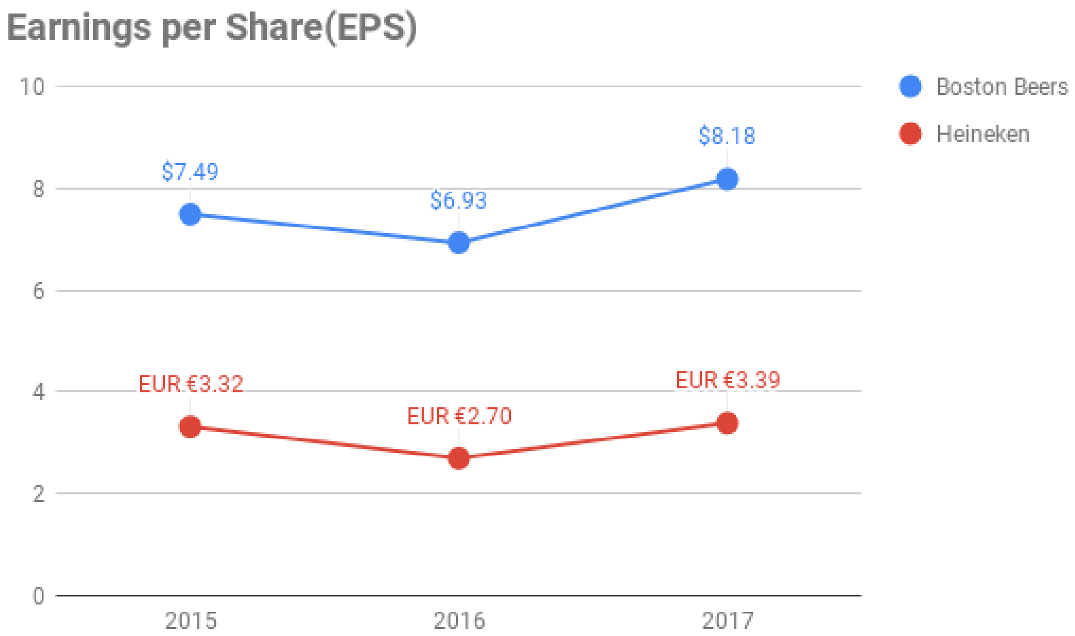

Figure 2.3: EPS ratio calculated from [3] Boston Beer Annual Report 2017, [6] Heineken Annual Report 2017

Earning per share ratio represents return on each share of stock owned by an investor. This is a useful metric indicating how much investor will earn in profit for every share of Common Stock outstanding during the year. So looking at the EPS line graph, figure 2.3, for the year 2017, Boston Beers were backed on track, making stockholders happy with EPS of $8.18 compared to its previous year.

Heinekens EPS in 2017 also increased from previous year at €3.39 versus €2.70 its previous year. Decline of EPS of both companies in the year 2016 was mainly due to causes discussed previously in previous sections of the report.

3 Balance Sheet Analysis

3.1 Current Ratio

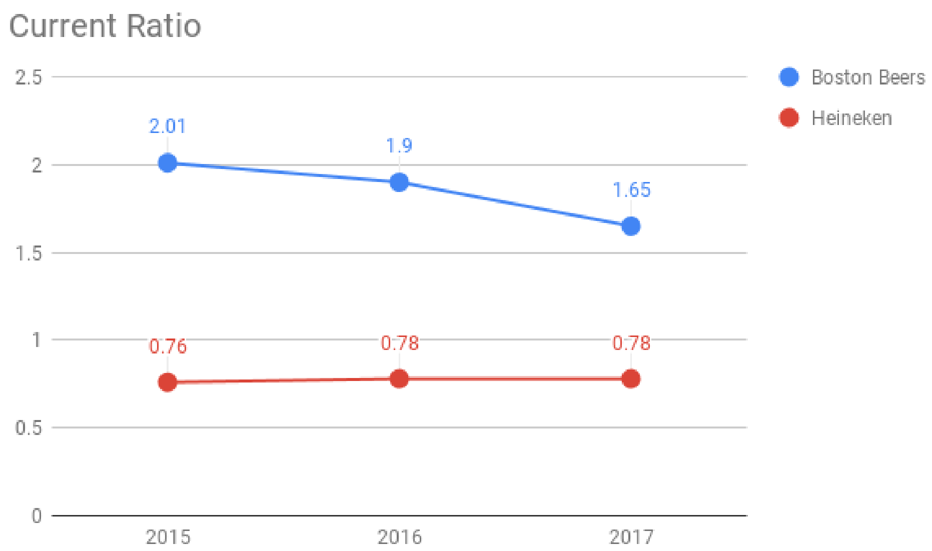

Figure 3.1: Current Ratio calculations from [2] Boston Beer Annual Report 2017 and [1] 2016, [5] Heineken Annual Report 2017, and [4] 2016

Higher Current Ratio indicates the company has significant amount in Current Assets to satisfy current debt. For Boston Beer, Current ratio declined from year 2015 to 2017 signaling decreasing in current assets for every dollar of liability mainly because it didn't generate enough cash and cash equivalents - \$65 million in 2017 compared to \$91,035 million in 2016. On the other side, Heineken's current ratio improved from year 2015 by 0.02 and has remained stable for the years 2016 and 2017.

3.2 Vertical Analysis/Common Sizing

Vertical analysis is a handy tool used to benchmark individual account contribution by dividing each account balance by net asset account in the case of balance sheet statement. Also, It helps in relating account balances of two different companies belonging to the same industry, varying in sizes and proportions. From the above table, it can be seen that Boston Beer maintain healthy Fixed asset - Property, Plant and Equipment comprising 67% of its assets, while Heineken share of contribution to its asset is only 27% in 2017

Vertical Analysis				
Year		**2017**	**2016**	**2015**
	Property, plant and Equipment	67.46%	66.31%	63.52%
Boston Beers	Goodwill	0.6%	0.5%	0.5%
	Stockholder's Equity	**74%**	**72.50%**	**71.46%**
	Property, plant and Equipment	27.09%	23.48%	23.80%
Heineken	Intangible Assets	**43.06%**	**44.31%**	**45.32%**
	Stockholder's Equity	35.38%	37.06%	37.56%

Figure 3.2: Common-sizing calculations from [2] Boston Beer Annual Report 2017, and [1] 2016, [5] Heineken Annual Report 2017, and [4] 2016

although it looks like they purchased some equipment/plant/property because of increase seen in its fixed asset by 4% compared to previous year. Moreover, Boston Beers leverages Stockholder's Equity for building its capital structure, forming 74% of its assets. On the other hand, for Heineken, Equity takes second place comprising 35.38% of asset contribution. Its worth mentioning that Intangible Assets of Heineken brand was valued at €17,670 million in 2017 and since has been for past several years. This is obvious since Heineken is internationally well known possessing breweries in more than 70 countries and still expanding compared to Boston Beers who's majority of the sales are generated in the U.S alone. To note, Boston Beers Intangible asset contributes only 0.6% to its total assets as of 2017.

3.3 Debt to Asset Ratio

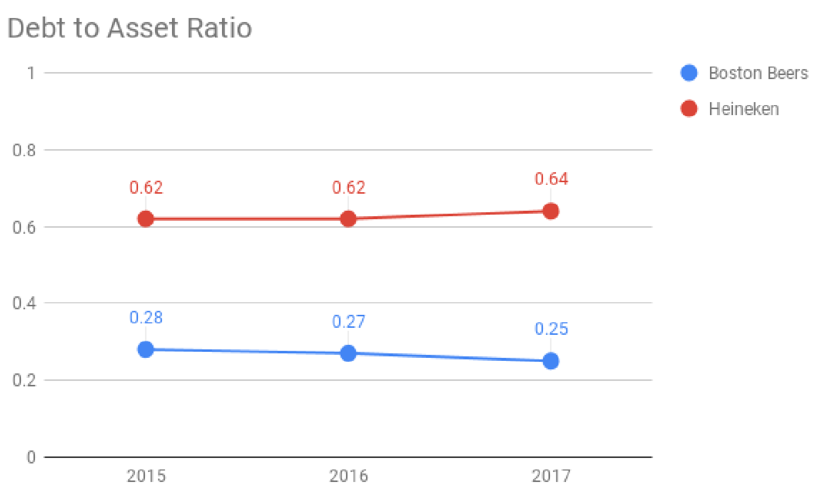

Figure 3.3: Debt to Asset Ratio calculations from [2] Boston Beer Annual Report 2017 and [1] 2016, [5] Heineken Annual Report 2017 and [4] 2016

Higher the Debt to Asset Ratio, the riskier the capital structure, in other words, it means that the company generates every dollar of assets from its liabilities. For Heineken, the Debt to Asset ratio remained stable in the year 2015 and 2016 and increased by 0.02 in 2017. Boston Beers has been seen slowly improving its ratio, reducing its dependence on interests, debt, etc from the year. Overall, it is evident that Heineken maintains a higher debt to asset ratio compared to Boston beers (0.62 vs 0.28). Heineken non-current assets were worth €16 billion and current liabilities were €10 billion in 2017. Its Loans and borrowings form 77% of its non-current liabilities which explains why they have higher debt to asset ratio

3.4 Debt to Equity Ratio

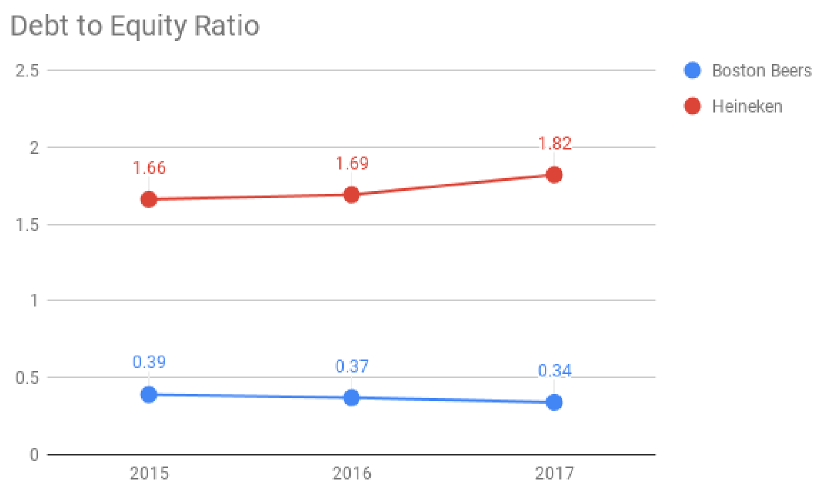

Figure 3.4: Debt to Equity Ratio calculations from [2] Boston Beer Annual Report 2017 and [1] 2016, [5] Heineken Annual Report 2017 and [4] 2016

Debt to Equity refers to liability a company has for every dollar of equity. The higher the ratio the riskier the capital structure of the company. Debt to Equity ratio for Heineken increased abnormally from year 2016 to 2017 by 0.13. On the other side - Boston Beers did pretty good. Its ratio reduced from year 2015 to 2017 by approx. 0.04 on average. A ratio of 0.34 in year 2017 for Boston Beers means that it has 34 cents of liability for every dollar of Equity and for Heineken it was €1.82 mainly due to hefty loans and borrowings and money spent doing trade; trade and other payable, in 2017, were worth €6 billion.

4 | DuPoint Analysis

DuPoint Analysis								
company	year	Net Income / Sales	x	Sales / Assets	x	Assets / Equity	=	Net Income / Equity
Boston Beers	2017	0.114	x	1.515	x	1.344	=	0.232
	2016	0.096	x	1.471	x	1.379	=	0.195
Heineken Beers	2017	0.044	x	0.533	x	2.825	=	0.066
	2016	0.038	x	0.528	x	2.698	=	0.054

Figure 4.1: DuPoint Analysis calculations by referring to [2] Boston Beer Annual Report 2017, [5] Heineken Annual Report 2017

The figure 4.1 shows DuPoint Analysis done for Boston Beers and Heineken Beer company for the years 2016 and 2017. DuPoint Analysis gives insights into company's return on equity. It serves as a quite useful tool for potential investors looking to get positive returns on investments or be better informed in their decision making process.

From the analysis, Boston Beers reduced its dependence on debt slighly and instead leaned more towards equity (1.379 in 2016 vs 1.344 in 2017). In the year 2017, the company generated more sales from its assets (1.515 vs 1.471) compared to the previous year and was therefore able to generate higher profits from its sales compared to its previous year, 2016. Increased sales and improved profits caused the rise of return on equity in year 2017 compared to year 2016.

Heineken, on the other hand, leveraged more debt than its previous year(2.825 vs 2.698) to keep up on sales over its assets and profits from its sales and thereby increase its return on equity by 0.012 (0.066 versus 0.054).

A cross comparison of Boston Beers(BB) and Heineken(HN) shows that HN had 2 times riskier capital structure compared to BB(2.8 versus 1.3) and still didnt boost up sales from its assets (0.5 versus 1.5) which in turn couldn't increase its profits. This might be because Heineken is not using all of its assets and might be selling off its fixed assets in return for cash or cash equivalents or It must have acquired new assets. Note that, Net Income of HN, in 2017, was EUR 834 million and revenue was EUR 21,888 million (approx. EUR 21.8 billion) while that of BB was $ 98 million in Net Income and $862 million in Revenue.

5 | Statement of Cash Flows: Investing and Financing Activities

5.1 Boston Beers: Cash Flow

Considering Investing activities, in 2017, Boston Beers spent \$32 million in purchases of property, plan and equipment. Its spending on P.P & E in 2017 is seen decreasing since 2015 which means the company is not expanding its operations. This was the only major Investing activity reported on their statements of cash flows. Also its important to consider that the company's main breweries are located only in Cincinnati and Pennyslvania which manufacture most of its products by volume and according to SAM Annual Report 2017, the company may not sustain its ongoing economics if they experience unexpected machine failures, labor shortage, etc at two of its main production sites.

Under financing activities, Boston Beers repurchased Class A common stock in 2017 for \$144 million. Second to it was proceeds from exercise of stock options worth \$15 million which were low compared to its last year, 2016 valued at \$40 million dollar. This tells us that Boston Beer do not owe long-term debt, also it can be clearly seen on its balance sheet where its current liabilities account \$101 million and \$9 million were classified as other liabilities.

5.2 Heineken: Cash Flow

The two largest investing activities for Heineken in 2017 were the acquisition of *Brasil Kirin* - the second largest beer company in brazil. Another investment carried out by Heineken in 2017 was the acquisition of approx. 1900 pubs which makes them owners of third largest pubs business in the UK (this information is sourced from Heineken Annual Report 2017, Consolidated Statements of Cash Flows). As per company's Statement of Cash Flows under Investing activities, for the above acquisitions, the cash outflow was €1.047 billion. The company also expanded its operations in 2017 in countries like Ethiopia, Mexico, Cambodia, Vietnam and Haiti and opened its first brewery in Ivory Coast for which cash outflow for its property, plant and equipment was around €1.6 billion vs €1.7 billion the previous year. With these investments, the net sales were slightly higher €21 billion compared to its previous year but the company spends around €13 billion on average in its expense and it looses significant amount of money in foreign currency translations.

Under financing activities, long-term liabilities for the company increased in 2017 because of proceed from loans and borrowings of €3.2 billion which is quite higher compared to previous year 2016 - €1.6 billion. The cash outflows under financing activities in 2017 was repayment of loans and borrowings of €3.2 billion vs €1.0 billion in 2016 and dividends paid to its investors/creditors worth €1.0 billion.

6 | Other Important Considerations

This section discusses essential information outside company's financial statements that might be useful for investors.

Boston Beers organizes a philanthropic program where they train and invest in early stage brewing companies. This is a great initiative by the company especially when it faces major competition in the beverage industry, investing in startups drives innovation. The company carries out orchid tree plantation, as per my opinion, this is right thinking to give back to the nature as they use orchid trees to produce their hard cider brands - Angry Orchard ciders

Heineken undertakes significant efforts to make a positive impact on environment, people that consume alcohol and low-to-no-alcoholic beverages on educational level and continuous innovation. *Heineken 0.0* has emphasis on health and well being of people, driving changes in consumer behavior globally. It conducted an educational program which explained what's,how's, and why's of cider drinks. Spent 10% of its profits from Heineken media to fund responsible consumption campaigns. Launched *Beerwulf* - a business-to-business and business-to-consumer platform, a online craft & variety business channel for consumers. As part of the Heineken innovation, launched *Blade* - a countertop draught system which delivers 8 litre keg when ordered online by trade. (Source - notes from Heineken Annual Report,2017). Heineken's awareness on climate change matters urged them to commit to a mission - *2020 Brew Better World*. Settled on an ambition to reduce carbon-dioxide through a programme called 'Drop the C' joining hands with COP21 Paris Agreement. So far, the company has witnessed 41% drop in carbon emissions since 2008.

7 | Investment Considerations and Conclusion

Finally, to conclude, I would choose to invest in Heineken over Boston Beers. Heineken has maintain stable financial growth, even though the company owes long-term debt, it has done significant investments and expansion in existing and new countries. This really boils down to their brand. Their intangible asset has created a value worth €17 billion. Also, the company has a strong footprint in sustainable development as opposed to Boston Beers. According to Boston Beers Annual Report 2017, the company suffers heavy competition from major brands like corona, ABinDev, MillerCooper including Heineken. Also, they have clearly warned its stakeholders about the risk involved due to competitive beer industry. Some noticeable facts are - Twisted Tea products which comprises of 4% of beer consumption in US declined by 4% by volume in its FMB(Favorable Malt Beverage) category due to reasons like competition and pressure of large breweries & spirit companies, Angry Orchid Ciders profits decline by 6% due to competition from regional, domestic, and international cider brands.

References

[1] boston beers. Consolidated statements of financial position annual report, 2016.

[2] boston beers. Consolidated balanced sheet data, annual report, 2017.

[3] boston beers. Consolidated income statement data, annual report, 2017.

[4] The Heineken Company. Consolidated statements of financial position annual report, 2016.

[5] The Heineken Company. Consolidated balance sheet data annual report, 2017.

[6] The Heineken Company. Consolidated income statement annual report, 2017.