RUNNING HEAD: OLIGOPOLY WITHIN THE BEER INDUSTRY

Oligopoly Market Firms

Beer Industry Oligopoly

Jason E. Stevens

Managerial Economics 651

Benedictine University

December 5, 2010

Table of Contents

Abstract

The following paper addresses two of the largest beer manufacturers in the world. Aneheuser-Bush (A-B) InBev and MillerCoors participate in an oligopoly within the beer industry. An oligopoly is an industry or a particular market where a small amount of firms control a majority share of the market and recognize their interdependence amongst one another (Maurice and Thomas, 2011). A-B InBev posted sales of $12.2 billion and MillerCoors posted sales of $6.4 billion while the entire beer industry posted $23.7 billion in 2009 (Beer feels, 2010). Thus between A-B InBev and MillerCoors they control over 78 percent of the market share making this particular industry an oligopoly. The first portion of this paper will look at how the two competitors compete, how pricing is determined and what effect price elasticity of demand has on the competition. The second portion of the paper will focus on how the firms use game theory, how profit is maximized (if at all) and how this affects the consumers.

How the two firms compete

The beer industry oligopoly has high barriers to entry with one of the main reasons being the economies of scale that can be attained by A-B InBev and MillerCoors. Typically companies with large market share such as A-B InBev and MillerCoors can use their size and efficiency to their advantage to increase their prices (Krakoff, 2009).

The competition within this oligopoly is relatively consisted with what Maurice and Thomas (2011) describe as strategic behavior or actions that one firm takes or threatens to take in order to plan or react to actions of their competitors. A-B InBev, a price leader within the beer industry, has used their size as recent as fall of 2010 to increase prices, which have been relatively flat compared to inflation in recent years, to boost profits (Fredrix, 2010). MillerCoors being a price taker soon followed suit of A-B InBev's by increasing prices as well (Fredrix, 2010). A-B InBev's decision is risky because MillerCoors could cheat, away from the Nash Equilibrium that was previously set through discounting prices or not following suit to take away market share from A-B InBev (Maurice and Thomas, 2011). However, as Maurice and Thomas (2011) point out if MillerCoors was to "cheat" and keep their prices lower A-B InBev, because of their market share, could retaliate for a longer duration thus causing MillerCoors profits to suffer more in the long-run. Thus, because of the interdependence it is more beneficial to MillerCoors to be a price taker and increase prices along with A-B InBev.

Price Determination

There are many costs that go into the manufacturing of a beer. Commodities such as the quality barley and hops, bottling, and packaging just to name a few, are all part of the costs of manufacturing beer, which is reflected in the price. A-B InBev and

MillerCoors take these factors into consideration however they rely more heavily on having multiple product lines to offer consumers sub-premium brands (lower quality-lower price) of beer to premium brands of beer (higher quality-higher price).

A-B InBev and MillerCoors prefer having a consumer switch to one of their own sub-premium brands than to lower the price of a premium beer, which preserves margins in the long run (Beer Industry, n.d.). Through the multiple offerings A-B InBev and MillerCoors do not have to sacrifice tarnishing the brand image of their premium beer because of a price discount (n.d). If one is to look historically or visit their local grocery store/super market they will notice that beer is not discounted like other items.

As mentioned above, the price leader, A-B InBev, sets pricing with in this industry and MillerCoors takes that price or suffers repercussions because of the dominance A-B InBev has within the industry. This industry can gather wider acceptance with such price increases because during the last, "10 years, the beer industry has lagged in pricing compared to other goods," while the ingredients to make beer has increased at a faster pace than the price of beer has gone up (Johnson, 2010, pg. 47). Finally, because of the high barriers to entry and market dominance there are no opportunities for an outside brewer to come in and undercut these giants (Johnson, 2010).

Elasticity of Demand and the competition

Price elasticity of demand measures how responsive a consumer is to changes in the price of beer. The data for domestic beer has fell over the past three years (2007-2009) with modest growth in 07' to flat in 08' to a loss of 2.1 percent in 2009 (Johnson, 2010). The primary driver behind this decline is the trying times of our economy, which the down turn is said to of peaked in 2008 (2010). Although, beer sold in the U.S. has

declined in the past three years not all beer sales are posting negative growth. Sub-premium-premium beers continue to post positive numbers, which makes sense if we look at the price elasticity of demand.

Income is a factor in the quantity of beer demanded and with the recent downward shift in our economy and shifts in income this all directly effects consumption, which is reflected in the above numbers. Premium beer (i.e. Bud Light, Miller Lite) can be substituted with sub-premium beer (i.e. Keystone Light, High Life) thus elasticity plays an important role in why sub-premium beer has surged over the past three years while premium beers have fallen.

Because of the recent shifts in the economy with all other factors constant consumers have responded by purchasing less beer or cheaper beer, which of course validates the law of demand. Thus, demand is elastic for beer. As the recent price increases have shown that consumers will still consume beer however, they will drink less beer or sacrifice a premium beer for a sub-premium beer, which the latter benefits either A-B Inbev or MillerCoors because of their deep product offerings.

Game Theory

Game theory is one of many tools managers use to make decisions in situations that involve interdependence (Maurice and Thomas, 2011). The basis of game theory is to have a systematic approach to decision making by analyzing behavior (2011). In an oligopoly, firms will prosper or suffer because of interdependence based on how each firm acts or behaves.

A-B InBev recently increased prices without knowing the decision of what MillerCoors would do. This type of decision is referred to as a simultaneous decision

game within game theory. Within this industry A-B InBev could of decided keep their prices the same or decrease them. A-B InBev has no way of knowing if MillerCoors will raise prices and follow their business decision. It is highly suspect that the manager of A-B InBev incorporated some sort of payoff table within their game theory. After referencing the table, managers at A-B InBev were probably confident that MillerCoors would follow the pricing increased based on their dominant strategy. A-B InBev's dominant strategy yields the best outcome regardless of the decisions of MillerCoors because of their size and influence within the industry (Maurice and Thomas, 2011). Finally to further solidify this game theory beer prices have been rather rigid for the past few years albeit commodity price increases as well as related goods thus a price increase was fitting (Johnson, 2011).

Profit Maximization or Suboptimal Equilibrium

The profit is maximized in the beer industry for a few reasons. A-B InBev is the dominant market leader, whom also sets the price, as seen above, and MillerCoors simply takes the price. The size of this oligopoly of just two companies controlling nearly 80 percent further contributes to profit maximization and the reaction of the market. Finally, the interdependence of the firms and actions they take has profound affects on the beer industry. For example, if the price leader were to decrease pricing it would be beneficial for MillerCoors to decrease pricing, as they would not be able to compete with a higher price. Likewise, as we see above, if A-B InBev were to increase prices, MillerCoors would benefit from increasing prices as well, if not they could face a possible retaliation strategy in the long run.

The companies within this oligopoly are also going to want to determine the price for a specific output that will maximize profit. Because there are many influences that affect the sale of beer (season, incomes, etc.), these companies want to determine the output that will yield the maximum profit. This idea would be based on the premise that total profit equals revenue minus cost because of the dominance of two key players is not perfectly competitive (Maurice and Thomas, 2011).

Competition beneficial/harmful for consumers

The competition within the beer industry or within any industry can be both beneficial and harmful for consumers. Unlike other industries the beer industry is heavily regulated because of the alcohol in beer thus the government has extra incentive to regulate this business and tax it as they see fit. Because of outside forces it can be harmful and interrupt consumption however on the flipside the monies generated from the sale of beer provides revenue for the government to provide other services.

I personally feel that this competition between InBev and MillerCoors needs to be scrutinized with a keen eye. The main worry is that either one of these companies can takeover the next and have 80 percent control of a market that would be edging closer to a monopoly.

Conclusion

Regardless of the economic times there will always be beer because there is simply a demand for beer. The companies are sitting atop a profitable industry where the future looks promising. The market share these two companies possess is extraordinary and their interdependence on each other will grow. As long as these two companies have the beverage that quenches their consumer's thirst the future looks successful.

References

Beer feels the squeeze. (August 2010). *Beverage Industry*, 101, 8. p.37(2). Retrieved November 29, 2010, from General Reference Center Gold via Gale http://find.galegroup.com/gps/start.do?prodId=IPS&userGroupName=mche79560

Beer Industry margins determined by market share. (n.d.) Retrieved on December 2, 2010 from http://www.rabobank.com/content/news/news_archive/087-Beerindustrymarginsdeterminedbymarketshare.jsp

Fredrix, E. (2010, Novemer 3). Price Hikes Buffer AB InBev , Molson Coors' Profits. Retrieved on December 3, 2010 from http://abcnews.go.com/Business/wireStory?id=12047937&page=1

Johnson, J. (Sept-Oct 2010). U.S. beer industry overview: in a challenge environment, beer sales volume slows, but increased efficiencies and a continuing rollout of new products are cause for modest optimism. *Beverage Dynamics*, 122, 5. p.44(7). Retrieved November 29, 2010 from General Reference Center Gold via Gale: http://find.galegroup.com/gps/start.do?prodId=IPS&userGroupName=mche79560

Krakoff, C. (2009, August 27). Beer Competition, and Emerging Markets. Retrieved on December 2, 2010 from http://www.emergingmarketsoutlook.com/?p=787

Maurice, S. Thomas,C. (2011). Managerial Economics: foundations of business analysis and strategy (10th ed.). New York, NY: McGraw-Hill