The Merger of Value: A Case in the U.S. Bottled Water Industry

Introduction

Why do firms merge? For firms in the same industry providing similar products or services, the most straightforward reason is to reduce competitions thus increase the joint profits. However, a merger that will reduce competition but also increase productive efficiency will be challenged by the antitrust laws unless the efficiencies are sufficient to prevent any price increases (Whinston 2006). With antitrust laws and regulations, successful horizontal merger firms are likely to be welfare-enhancing for consumers and may have positive externalities on other non-merger firms, but it is unclear what else horizontal merger firms can benefit from merging except for increased market power or economies of scale. Most previous literature on the evaluation of horizontal mergers focus exclusively on mergers that are likely to reduce competition (increase market power), for example, Kim and Singal (1993) in airline industry, Nevo (2000) in ready-to-eat cereal industry, and there is a gap of knowledge on mergers that create 'value' in the current economics literature. This proposed research is motivated to fill the gap of knowledge by showing the potential 'value' created through merging among merger firms and explain where such 'value' come from post-merger.

In terms of mergers that are likely to create values, beverage industry is a good example. On May 26, 2007, Coca-Cola Company announced its acquisition with Glaceau, which is the maker of Vitaminwater. In 2015, Coca-Cola Company and Monster Beverage Corporation announced the strategic partnership that Coca-Cola acquire a 17% stake in Monster Beverage Corp. Focusing on the acquisition case between Coca-Cola and Glaceau, we can find that the merger create significant values for Vitaminwater rather in addition to the market power. By 2011, Vitaminwater had grown from $350 million in revenue annually to more than $1 billion. It is obvious the merger with Coca-Cola creates huge values for Vitaminwater by either increasing market share or boosting total revenue, but the mechanism behind this phenomenon remains unclear. In addition, with retailer data from the Nielsen Company, we also find evidences that some markets respond to the acquisition in a relative short time. Figure 1 presents the average quantities of Vitaminwater (total ounces of all Vitaminwater products) sold per store in DMA regions of Florida from 2007-2008. The horizontal axis denotes the time trend in terms of week index from the beginning of 2007 to the end of 2008, the vertical axis denotes the average ounces of Vitaminwater sold per store in the local DMA region. In addition to figure 1, figure 2 shows the total revenue of Vitaminwater in these regions from 2007 to 2008. By looking at figure 1 and figure 2, it is straightforward that in the following year after acquisition, there are significant boosts in sales and revenues in Miami, Orlando and Tampa. The abrupt boosts in both sales and revenues in these markets suggest the acquisition must create 'values' through some determinants such as adjusting marketing strategies (advertisement) , increasing product exposure, lowering entry or distribution costs for Vitaminwater products. Understanding how these determinants create 'values' from acquisition or merger, and how much the merger of value is created are of both practical and policy importance. However, existing literature does not provide us satisfying explanations to these critical issues, thus we are motivated to comprehensively explore these issues and search for answers.

In terms of bottled water industry, several factors may play roles in stimulating market shares or revenue after the acquisition, such as advertisement expenditure/exposure, shelf space (product exposure) in stores, entry cost or slotting allowances in stores. It is natural to think that after acquired/merged by Coca-Cola Company, products of Vitaminwater can take advantage of Coca-Cola Company's resources, such as advertisement exposures at lower cost, larger bargaining power with local retailers over shelf space, lower entry cost, more efficient and wide distribution channels. For Vitaminwater products, these resources are great values created through merger with Coca-Cola Company. Taken vertical relationship between manufacturers and retailers (e.g. Villas-Boas 2007), previous studies have explored effects of advertising (Murry 2015), bargaining power in distribution channel (Draganska, Klapper, and Villas-boas 2010), and vendor allowances and consumer welfares (Hristakeva 2016). But none of these studies have ever explored how will these determinants (advertising, bargaining power, slotting allowances) create 'value' for smaller firms after acquired by large ones, nor have they considered these determinants in a single comprehensive framework. The proposed research will contribute to literature by providing insights into determinants of the value created by merger, and investigate how these determinants (e.g. advertisement, shelf of space, entry cost) will affect the market shares, prices, and consumer surplus by considering both consumer demand and interaction (bargaining/negotiation) between manufactures and retailers in an equilibrium framework.

Data

Nielsen's Advertising Intelligence data for beverages, tracking brand-level advertising across 22 media types, including dollar expenditures and estimates of exposures, from 1994-most recent across all DMA regions. Specially, the data that we need include:

1. All bottled water brands
2. All carbonated drinks
3. Energy drinks (such as Monster, Red bull)
4. Bottled tea and juices (such as FUZE, Minute Maid).

Financial resources

None

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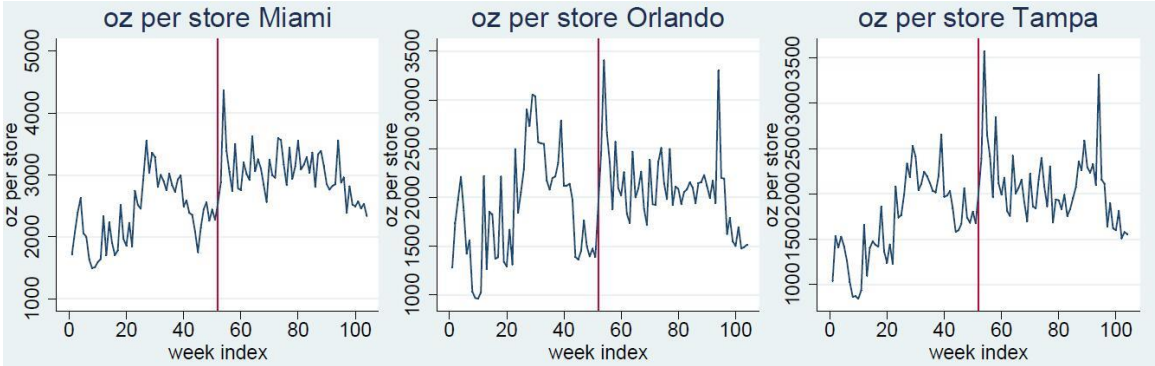
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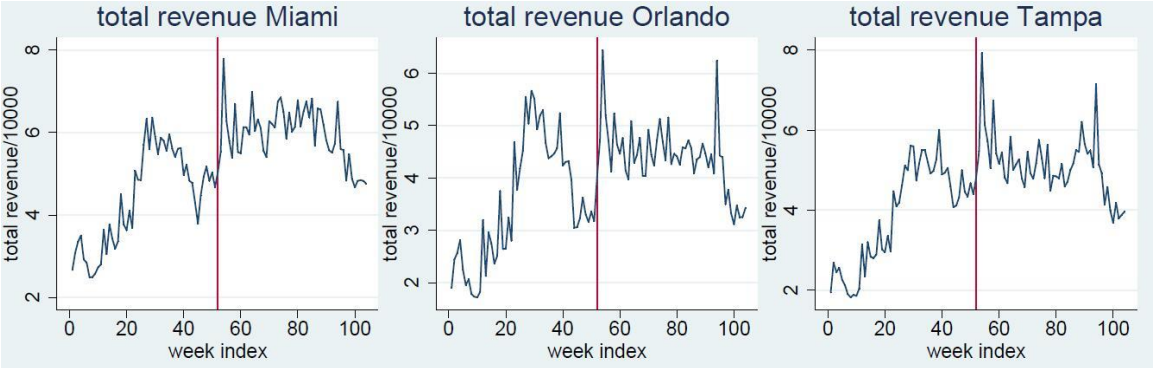
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Figure 1. Average quantities of Vitaminwater sold per store in selected DMA regions from 2007–2008



Notes: The red vertical line denotes the end of year 2007.

Figure 2. Total revenue of Vitaminwater in selected DMA regions from 2007–2008



Notes: The red vertical line denotes the end of year 2007.