

Foreword

The thesis by Daniela Wiehenbrauk examines ways to increase promotion efficiency in retailing through sharing of competitive information. The supply chain structure consists of a manufacturer, multiple retailers and customers. Customers make purchase decisions based on the retail prices offered at each point in time. Retailers have to choose a pricing strategy and decide how much to buy to satisfy demand. Manufacturers satisfy retailer orders. Given a lack of information regarding the other retailer's prices, the inventory levels end up being either too much or too little, depending on the realized prices of the competitors in the market. Motivated by discussions with a leading German retailer the thesis examines an innovative approach to improve the supply chain efficiency. The approach calls for the manufacturer to announce a competitive index each period based on shipments to all retailers. The index provides a signal regarding the potential demand level without revealing the particular retailer who will promote. The thesis focuses on analyzing the impact of this index across the supply chain. The timing of events requires retailers to independently choose promotion frequency, decide whether or not they will promote in a period and finally decide on the order quantity for that period. When the competitive index is provided, then the retailer fine tunes the actual promotion price and decides on the order quantity. Since retailers have to choose decisions while anticipating demand, with or without the competition index, mixed strategy equilibria will exist. These mixed strategy equilibria can be interpreted as the share of stores of a specific retail chain that offer a promotion in a period. Finally, customers are modeled as loyal or smart. The smart customers adjust their purchases based on observed prices. The thesis utilizes a unique data set obtained from the manufacturer and from the retailer. The product category is diapers. Application of the model enables estimation of the benefits of provision of the competitive index. The additional information from the competition index reduces inventory and thus reduces supply costs to do a promotion. This leads to an increase in the frequency of promotions. The net impact is a benefit to the retailer and to the customer. Conditions are derived when the manufacturer, retailer and customer may all be better off with the competitive index information. The thesis provides a complete analysis of a novel approach to improving the supply chain. Presentations of this idea in academic conferences recently have always generated intense interest because the idea is both simple to explain yet complex in its impact. The empirical data suggests a concrete estimate

of its impact for the diaper category in the highly competitive German supermarket environment. By combining the insights from marketing, supply chain management and feedback from industry, the thesis provides an excellent example of research that is current, novel and has the potential to have significant and lasting impact on the academic field. Moreover, the thesis should be of great interest to practitioners as well, i.e., manufacturers and retailers alike, since collaborative promotions are the best way to mitigate forecast error stemming from deciding only last minute on actual promotion prices.

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