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A Social Network Analysis of Consumers' Perceived Brand Positions in the Running Shoes Market

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Despite the slightly downturn in the footwear market due to weak economic performance in the US, the sales of running shoes gains steadily to \$2.46 billion in 2011 (Running USA, 2012). However, increased intensity of competition in this section leads to more homogeneous products. Products targeting the same needs or competing on the same attributes decrease the profitability of the market as well as of each player (Porter, 1979). Therefore, branding strategies aiming at establishing a unique brand position in the market is crucial for all the brands in the running shoes market.

Whereas brand poisoning is part of the brand strategy, perceived brand position is the perceptions or beliefs, thoughts, feelings and impressions that consumers formed about a brand in comparison with competing brands. Thus, brand position perceived by consumers is more useful in evaluating the effectiveness of brand positioning. The perception of the competitive positions of brands in a market can be seen as a social network, where each of the brands has certain possibility to be compared with each other by consumers, and the co-mention can be used as a measure of brand similarity (Netzer, Feldman, Goldenberg, & Fresko, 2012). In recent years, more consumers are sharing their opinions of products of a brand with other consumers through virtual communities. Given the rich contents about brand comparisons comprised in consumer electronic word of mouth (eWOM), it will be advantageous to extract consumers' perceived brand positions from eWOM. Instead of locating the perceived position for a particular brand, this study aims at exploring brand competitive network perceived by consumers for the major players in the running shoes market. For an exploratory study, we focused more on the descriptive than the diagnostic measures. Specifically, through constructing a brand competitive network, we would like to: 1) identify the major brands in the running shoes market; and 2) gain an overview of the competitive positions of these major brands in the market.

A sample containing 94 posts was selected from a footwear discussion forum for frequent runners (Runnersworld.com). Text mining software (R tm package) was used to obtain term document matrix from the original data, which was later transformed into a co-occurrence matrix. Social network analysis (SNA) was then used to obtain the measures of the network properties and visualize the network relationship. A SNA software (R igraph package) was used to process the term-term adjacency matrix and produce the network using Kamada and Kawai's algorithm. Figure 1 shows the network graph with Eigencentrality (EC) score and cluster ID (the numbers in red) for each brand name. The tie strength is shown as the width of the connection. The EC score measures the frequency that a brand is compared with other brands. The smaller the EC score, the less frequently the brand is mentioned in comparison with other brands, indicating less competition with other brands and more uniqueness.

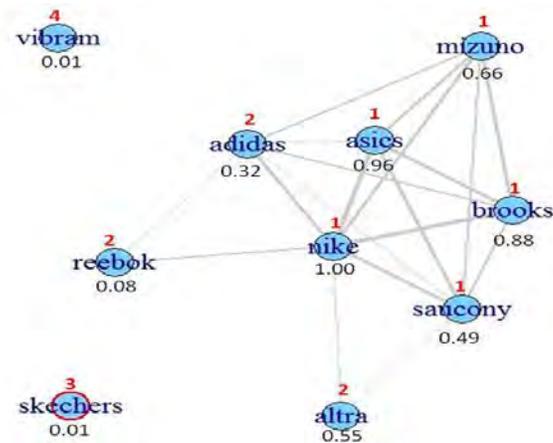


Figure 1. Network Graph of Perceived Brand Position

Figure 1 presents the major players in the running shoes' market, including Adidas, Altra, Asics, Brooks, Mizuno, Reebok, Saucony, Skechers, and Vibram. The result also indicated various connection patterns rather than a uniformly distributed network. These brands are clustered into three groups based on their uniqueness and competition relationship with other brands in the market. Considering its dominant market share, it is not surprising to see Nike in the focal position in the network with the largest EC score (1.00). The graph shows that the strongest connections are among Nike, Asics and Brooks. Also included in Cluster 1 are Mizuno and Saucony. These brands were viewed as having some commonalities in their market offerings and were competing against each other intensively. On the other hand, Vibram and Skechers in Cluster 3 are isolated without co-mention with any other brands, indicating that their products are somewhat distinctive. This result is consistent with the fact that both brands offer more casual footwear instead of professional running shoes. In between is Cluster 2, which includes Adidas, Reebok, and Altra. Brands in this cluster share some commonalities in their offering, but not as much as those ones in Cluster 1. Hence, these brands are not facing as intense competition as those in Cluster 1. This result seems not consistent with the fact of Adidas being the second largest sports footwear provider. However, this study is only focused on running shoes, which Adidas may not be strong in. In summary, this exploratory study provided an overview of the competitive positions of the major brands in the running shoes market through a Social Network Analysis. However, the generalizability of the results is limited due to the small sample size. Future study will include a larger sample to achieve a higher external validity.

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