

Background: In an earlier technical report¹, we discussed product portfolio optimization. In that report, products were placed: a) in the absence of competition and existing brands, b) in the presence of competition, and c) in the presence of competition while minimizing cannibalization of existing brands. The last two cases involved optimizing the probability of first choice among multiple alternatives. The design of an optimum portfolio depends on the availability of certain information about the location of existing products (your own and your competitors') along with the location of individual ideal points. This information can be obtained from modeling liking data using a probabilistic, individual ideal point model called Landscape Segmentation Analysis (LSA)^{2,3,4,5,6,7}. In this report, we discuss the application of LSA in a dynamic exercise involving two competitors with existing brands, and their efforts to optimally place new products on the market to maximize first choice.

Scenario: You conduct a large scale evaluation of your existing brand, B1 and B2, and your main competitor's brands, C1-C4, and construct an LSA space. In this space, the locations of your brands, your competitor's brands, and individual ideals are determined. Your competitor conducts the same LSA and constructs the same map. Additional information, such as expert or consumer descriptive data, can be used to describe the directions of the LSA space¹.

Figure 1 shows the location of your competitor's four brands and your own two brands against a contour plot of individual ideal point densities. The lighter the region in the map, the greater the concentration of ideal points. From this map, it can be seen that your competitor is well placed to appeal to Segment 2 and has one product, C1, near the larger Segment 1. One of your two products is placed centrally to Segment 1 and the other is placed between the peak densities of Segments 1 and 2. Assume that your company is willing to reposition its two existing brands (B1 and B2), but your competitor is

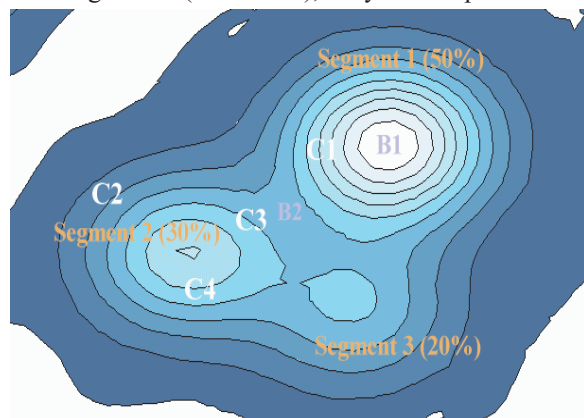


Figure 1: Contour plot (LSA map) showing three segments, four competitors (C1-C4), and two brands (B1 and B2). The sensory directions of sweetness and redness are shown as arrows in the direction of the greatest intensity.

unwilling to reposition hers because she has made considerable investment in their current positions. Your company plans to introduce two new products, P1 and P2, and your competitor one new product, CN. Both wish to optimize first choice while avoiding cannibalization.

Your First Move: The optimum placement of your new products is given in Figure 2. One of your new products is placed among three of your competitor's brands and the second one is placed near Segment 2. This particular placement of P1 and P2 shows that your best strategy is to sacrifice P1 to damage the success of your competitor's brands C2-C4 and to place P2 in a position to appeal to members of Segment 3. It is not necessary for P2 to move deeper into Segment 3. Most of the ideal points east (more redness intensity) and south of P2 will be closest to it ensuring that it will be chosen first by consumers in this area of the space. In your current situation you appeal to Segment 1 with B1, Segment 3 with P2, and Segment 2 with P1. B2 appeals to centrally located individuals. Assume that you place the two new products in these positions and that your competitor obtains the necessary information to reconstruct the LSA map to include these products.

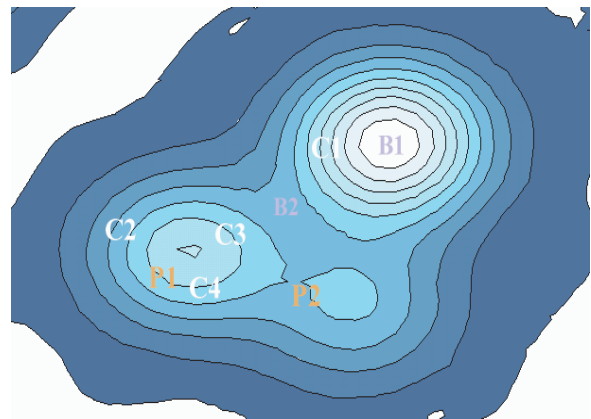


Figure 2: Optimum locations of two prototype products (P1 and P2) taking competition and cannibalization into account.

Your Competitor's First Move: Analysis of the space with one potential new product to optimize first choice for your competitor leads to the results shown in Figure 3. Here it can be seen that the best strategy for your competitor is to place a product near the large Segment 1 but on the opposite side of its current brand, C1. This strategy damages the position of your brand, B1, and CN appeals to consumers placed in the east and northeast sections of the map (sweeter products.) With only one product in play for your competitor, she has limited potential to reduce your first choices. By locating the new product near Segment 1, she reduces the dominance of B1 to a large mass of consumers.

Your Second Move: You know that your competitor will not reposition her brands, C1-C4. Since you are willing to

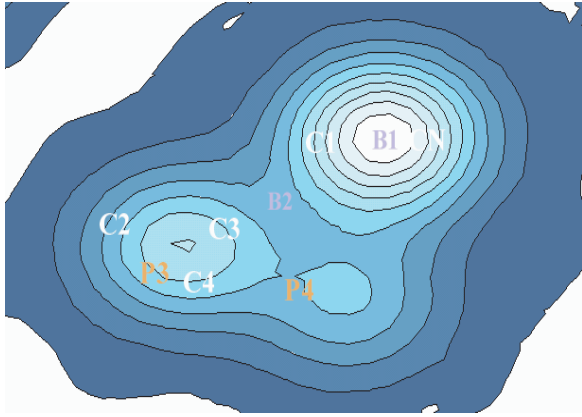


Figure 3: Your competitor places CN on the map just east (sweeter) of B1. C1 and CN reduce the effectiveness of B1 to appeal to Segment 1 consumers.

reposition any of your products, you locate the best positions for all four of your products, B1, B2, P1, and P2. This result is shown in Figure 4. P1 and P2 are placed in similar locations to the last two moves, but B1 and B2 have moved to counteract the effect of C1 and the competitor's new product, CN. B2 moves from its central position between Segments 1 and 2 to occupy a position just south of the Segment 1 peak (sweeter) and B1 moves north to avoid cannibalizing B2. Now consumers north and south of Segment 1 will prefer either B1 or B2, while those in Segment 3 and its surrounding area will prefer P2. Consumers east of Segment 1 will have to be conceded to CN. Note that your competitor's inflexibility in repositioning her current brands is a significant weakness.

Comments on the Strategic Moves: Without optimization tools, it is not at all obvious what the best strategy should be for you or your competitor to place products on the LSA map. For instance, consider the position of your brand, B2. In blind

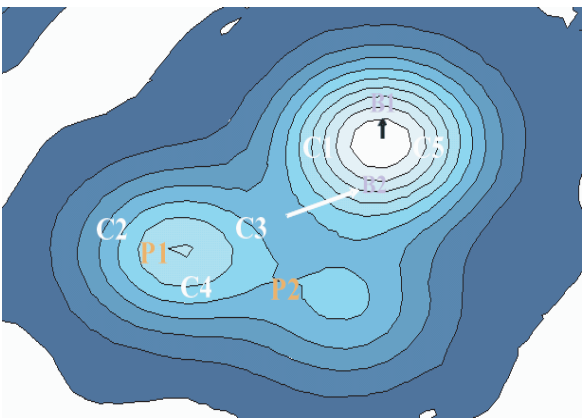


Figure 4: In your second move, you counteract your competitor by moving your two current brands. B2 blocks access of CN to consumers in the southern part of Segment 1 and the northern part of Segment 3.

product testing, this product receives the highest liking rating mean of all products on the map. This occurs because its central location generates few low ratings, but it would not receive the greatest number of highest liking ratings. When B1 and B2 are free to be repositioned as shown in Figure 4, the new position for B2 will lower its average liking rating. If liking ratings are used as a primary decision-making tool, this move seems counter-intuitive. However, your goal is to produce the highest likelihood of first choice and B2 can serve you better by appealing to consumers who like a sweeter product than it would in its old position. Portfolio optimization is based on a team approach to product placement. No one product is expected to appeal to all consumers, but each product must either dominate a region of the map, such as P2, or be sacrificed to damage dominant competitors, such as the effect of P1 on C2-C4. It is possible that certain regions of the map should be conceded to your competitors so that more promising opportunities can be exploited. An example of this is the concession to CN east of the peak of Segment 1 which includes people who like highly sweet products with greater redness.

Conclusion: Portfolio optimization is a valuable strategic tool in the design of product portfolios. The location of your own existing brands, your competitors' brands, and your joint new product decisions all affect each other's optimum portfolios. Repositioning and new product introduction is a continuous, dynamic process. To gain leadership in your market and to keep it, it is necessary to understand the market and respond appropriately. LSA and portfolio optimization methods can help you to achieve long-term market dominance, especially when you have access to optimization tools while your competitors strategize without them.

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