Predicting Brand Equity:
Using Discriminant Analysis-Based Perceptual Mapping

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Abstract

MDA-based mapping is utilized to measure the extent to which subjects can readily transfer the benefits associated with a brand's core franchise to line extensions and other new product opportunities. Reorientation of the product space places a manufacturer's current products at the center of the space and displays new product opportunities around the current brand franchise.

Background

Researchers and marketers have long used perceptual mapping as a powerful device for interpreting and communicating insights about market structure. Its applications have primarily focused on understanding how brands compete in terms of delivering benefits.

The last twenty years seem to have produced considerable development in the ease of use of a variety of mapping techniques, better assessments of the strengths and weaknesses of each technique, and far more elegant graphic presentations of results. Far less energy and creativity have been devoted to developing new applications for perceptual mapping or dealing with the perceptual psychology of marketing managers who must utilize the results of MDA.

One new application of MDA-based mapping is the measurement of brand equity. Understanding brand equity has become increasingly important as the mergers and acquisitions activities of the last decade has resulted in a recognition that many companies' brand names are substantially undervalued.

One common problem with MDA-based mapping comes from a perceptual misunderstanding. As marketing managers begin to understand a perceptual map, they invariably ask: "What does the middle of the map mean?" They are rarely satisfied with the appropriate answer, namely that the center is simply the average of the products rated, because the center has *no marketing meaning*. This is often unsettling as they are confronted with a fascinating visual whose focal point has little or no meaning.

The procedure described herein describes an application of mapping to asses a brand's potential to extend its franchise to new products and simultaneously present finding in a more easily understood format.

The data are taken from an actual survey in which 821 subject's evaluated 77 products: five were products currently marketed under the sponsor's brand; the remaining 72 were either products new to the brand or new product concepts. The products evaluated spanned a number of technologies.

Both products and technologies are masked. For example, one set is represented by flowers (azalea, begonia, etc.); another is represented by fish (alewife, bass, etc.), and so on. Only 25 of the 77 products are displayed.

Brand Equity

Brand Equity Defined

Brand equity was defined as a set of benefits which were associated with the manufacturer's current products and which differentiated these products from their competitors.

Measure of Brand Equity Transfer

A review of previous research yielded a set of attributes which appeared to successfully describe and discriminate the client's existing products. However, many of these were physical descriptors of the current franchise and inappropriate for the opportunities being investigated. Qualitative research, using the "laddering" technique, yielded a set of eighteen benefit statements applicable to both current and proposed products. All eighteen benefit statements were utilized in a pre-test of the questionnaire instrument, and a final set of six statements were selected on the basis of discrimination across the entire brand and product set.

A critical objective of the research was to measure how well the benefits associated with the brand's current products could be transferred to, or associated with, new products carrying the same brand name. We termed this process "Brand Stretch." More correctly, but perhaps less tantalizingly, it should have been called "Benefit Stretch."

Each respondent provided 252 benefit ratings [14 products (one current product and 13 new products) x 3 brands x 6 benefit statements]. A mean rating score was computed for each respondent across all ratings and each respondent's data was centered by subtracting that mean. The dependent variable for the discriminant analysis was the seventy-seven category product variable; discriminant scores were computed on two dimensions for each of the three brands rated by each respondent.

To the extent to which new products were perceived close to existing products, it was hypothesized that the brand's benefits might be readily transferable. The further the distance, the greater the "stretch," the less likely the transfer of brand equity.

Communicating Brand Equity Stretch

Focusing Marketing Vision

Placing the client's core franchise at the center of the perceptual space was a logical solution to the oft-asked question regarding the meaning of the middle.

Other benefits arose from this orientation as well. First, decision makers more readily consider all possible options. Secondly, it is quickly apparent that adding new products changes how the brand itself is perceived. The sponsor's management quickly realized that each time they put their brand on a product, there was a twofold result: the brand said something new about the product, and the product said something new about the brand.

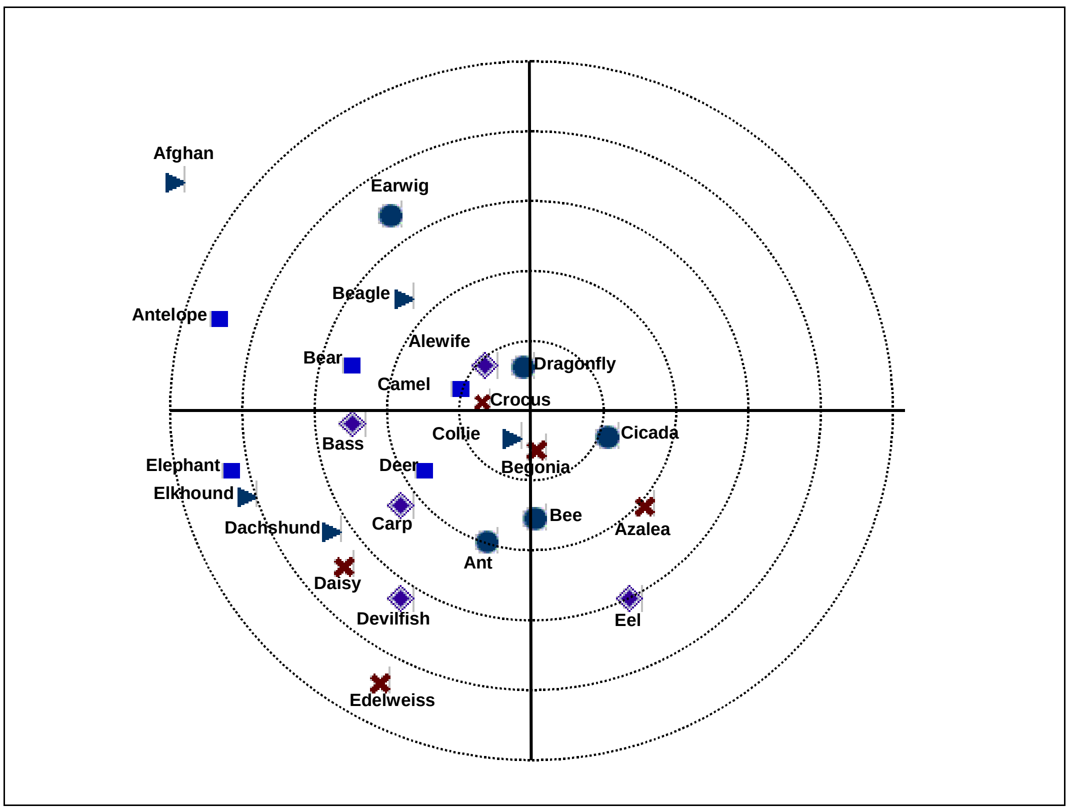
Centering the Product Space

The product space was centered on the client's franchise at the level of the individual respondent. This was done by subtracting the pair of discriminant scores for the client's existing product from the discriniminant scores from each of the remaining thirteen products. At the same time, the distances from the existing product to each of the other 13 products were calculated.

Figure 1 displays the results for 25 of the 77 products studied

FIGURE 1

CENTERED PRODUCT SPACE



The concentric rings help the viewer interpret the map. Different technologies tend to dominate different areas, each emphasizing different benefits delivered by the brand.

Potential Misinterpretation

One product concept was almost entirely new to the sample and was not explained adequately in the survey instrument. When it was never rated as being similar to any of the client's products, it was also never rated consistently. As a result, respondents' individual perceptions were located about the perimeter of the space. The consequence was that a product which appeared to share the parent's brand equity, actually did not.

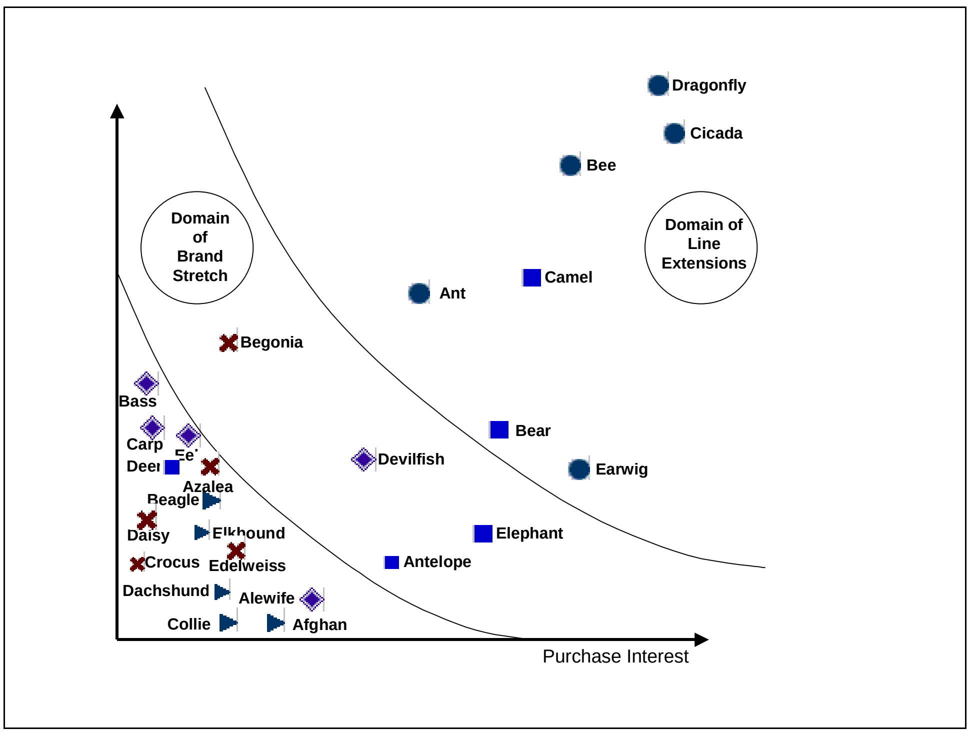
Market Potential

Opportunity Evaluation

The fact that a new product shares some benefits with its putative parent is no guarantee of market acceptance. It is also necessary to determine interest in the new product itself. A measure of "purchase interest" was derived from a traditional purchase intent question. It is useful to combine the distance measure of "Brand Equity" from the mapping exercise with the purchase interest measure, as shown in Figure 2.

FIGURE 2

BRAND STRETCH SPACE



The plot shows that the measures are correlated; the products with the greatest brand equity are those with the highest level of purchase interest. All of these products shared the same technology (all represented as *insects*). This technology also encompassed most of the products currently offered under the brand name. In the parlance of the project, these opportunities represented little "stretch" and more logically line extensions.

Of greater interest was the band new products which offered either above average shared brand equity or above average purchase interest. Most of the “mammals” other than “dogs” fell into this band, and it was toward this technology that the sponsor decided to devote its efforts.

Combining the major findings from the mapping analysis with other data from the survey in a simple visual form such as shown in Figure 2 adds significant value to the mapping exercise.

Conclusions

The procedures described appear to offer benefits to the end-user of a study utilizing MDA-base mapping.

First, centering the product space on the client’s own brand or some other meaningful referent permits the non-researcher to grasp the findings more readily.

Second, combining the findings of a mapping analysis with other summary data from a survey take the thinking and decision-making beyond the simple question of “Where do we go?” to a more complex question of “What do we do?”