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Commentaries and Reply to “Can Brand Extension Signal Product Quality?” by Sridhar Moorthy

This series of discussions presents commentaries and a rejoinder on the economic perspectives on branding arising from Moorthy [Moorthy S (2012) Can brand extension signal product quality? *Marketing Sci.* 31(5):756–770].

Key words: brand extension; signaling; product quality; game theory

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On Brand Extension as a Signal of Product Quality

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Let me start by applauding Sridhar Moorthy for writing another great paper (Moorthy 2012) and the field for its continued quest to use rigorous analysis to understand important phenomena such as umbrella branding. (Though I left the area many years ago, a lot of very strong people, some of whom are cited in Sridhar’s paper, have contributed since then.) I will add three comments to the discussion: a specific point about the cost of umbrella branding, a general observation about signaling models, and a note about “data” in this area. All three points reflect my belief that intentions to signal play a major role in the use of umbrella branding.

1. Sridhar’s paper is based on the premise that it is cheaper to introduce a product that is umbrella branded than one that is not. This is very appealing and commonly asserted by practitioners. Although my paper (Wernerfelt 1988) made the opposite assumption, I have never liked it. However, as I pointed out at the time (pp. 459–460), the costs associated with the new product are not the only ones that matter. For the firm, costs borne by the old product and costs borne postintroduction are equally important. It is hard to believe that a product manager of an old product would be happy to see an umbrella-branded extension—not just because it may expose the old product to risk but also because it blurs its horizontal position and causes it to lose future flexibility in other parts of the marketing mix (perhaps mostly prices). In addition, the new product will suffer the same problems down the road. It is difficult to judge the magnitude of these indirect costs. However, if we accept Sridhar’s finding that it is hard for

umbrella branding to serve as a signal when umbrella branding is cheap, then one possible interpretation of his results is that umbrella branding does serve as a signal and that the indirect costs of it thus must be substantial.¹

2. The signaling effects of umbrella branding can be analyzed in a large number of ways, and it is hard to get strong negative results. First, there is a sea of possible extensive forms with different types of players, orders of moves, information structures, and so on. Although some formulations are simpler and may seem more natural, it is difficult to put a bound on the possibilities. Second, signaling models are notorious for having multiple equilibria, and many refinements have been suggested, including some that do not work off the out-of-equilibrium beliefs (the most efficient equilibrium, the equilibrium preferred by the strongest player, etc.). The refinements can generally not be ordered from weaker to stronger, and different refinements may pick out different equilibria. The literature, and Sridhar’s paper in particular, has investigated a number of (extensive form, refinement) pairs, but one could look at many more.²

3. Quite a lot of data suggest that some version of the signaling story is correct. In the academic literature, there is the work by Sullivan (cited in Sridhar’s paper), as well as the stream starting with Erdem (1998) and continuing today. More anecdotally, but perhaps also more telling, I have discussed umbrella branding with numerous marketing managers in the 25 years since I wrote my original paper. Like the Coca-Cola executive quoted by Guyon and

¹ Another thought-provoking counterfactual is that not all new products are umbrella branded, Tab being an example.

² As an aside, one can sometimes get negative results by exploiting that the equilibrium correspondence can be discontinuous in the probability of very unlikely events (as in Aghion et al. 2012). Although this is true in a model with standard rational agents, it is less clear that it will hold in a game with “real” people.

Long (1982; cited in Wernerfelt 1988), these managers very often describe their intentions in ways that are hard to interpret by anything other than signaling arguments.

Sridhar's results are surprisingly strong, and I read his paper as telling us that we have more work to do before we can establish the signaling role of umbrella branding.

More generally, beyond the merits of signaling as a rationale for umbrella branding, I believe that signaling models will play an important role in the marketing literature. To the extent that marketing is about communicating information, many aspects of it—in all four P's—can be interpreted through the lens of signaling models. Most signaling models to date have been concerned with pricing and advertising, and there are further opportunities in those areas. However, we have not even explored signals sent by the design of products and stores, return policies, and many other decisions.

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Economic and Behavioral Perspectives on Brand Extension

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1. Introduction

Understanding brand extensions—given their widespread proliferation and importance to a company's growth strategy—has been a marketing priority for several decades now. The academic study of brand extensions through the years has benefited from the variety of theoretical perspectives that have been brought to bear. Concepts and principles from

economics, psychology, anthropology, and other fields have all been productively applied to provide unique and valuable insights. Given the complexity of brand extensions, such broad, diverse examination should be encouraged.

In his 2012 paper, Sridhar Moorthy, adopting an economics perspective, provides some fresh insights to an old brand extension problem: Can brand extension signal product quality? Birger Wernerfelt's seminal research demonstrated that the mere fact that a firm launches an extension could potentially send a signal to consumers about the quality of that extension (Wernerfelt 1988). On the basis of his modeling analysis, Moorthy shows that although extensions can provide such signals, they are likely to be manifested only in highly constrained situations. Central to his analysis is a keen understanding of consumer behavior and how markets operate. In this commentary, I will offer some perspectives as to how to think about brand extensions, discuss the theory and boundary conditions identified by Moorthy (2012), and address the broader issue of brand extension signaling.

2. Conceptualizing Brand Extensions

Prior research has demonstrated that successful brand extensions occur when a parent brand is seen as having favorable associations and consumers perceive a high degree of fit between the parent brand and the extension category (Keller and Aaker 1992, Romeo 1991). Both the parent brand and extension category can be characterized by a whole range of brand associations that reflect all the thoughts, feelings, images, beliefs, perceptions, etc., that a consumer can hold toward a brand or product. Particularly important parent brand associations include high quality, likeability, and trustworthiness perceptions as well as unique brand-specific associations.

High perceived fit between the parent brand and extension category can result from a number of different causes, such as (1) overall similarity between the parent brand and extension category, (2) technical or manufacturing commonalities, (3) complementarities in usage occasions or users, and (4) relevance of brand-specific associations in the extension category. Additional factors that increase the likelihood of extension success are past consumer usage of the parent brand, marketing support that highlights the benefits of the brand extension, and wide retail distribution (Broniarczyk and Keller 2011).

Figure 1 shows a simple brand extension model that depicts some of these important considerations. Note that the parent brand may be identified with multiple products in different categories. Similarly, the extension category may be characterized as having multiple competitors. These various characteristics of the parent brand and extension category are the