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Spatial competitive interaction of retail store formats: modeling proposal and empirical results

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Abstract

This study builds on the spatial competitive interaction of store formats that are often considered generic retail positioning profiles. Specifically, a modeling proposal is developed that focuses on the role of the spatial coverage reached by particular store formats as a determining factor of intraurban market response. The proposal is assessed through an application to the Spanish retail context that tries to identify competitive frictions among the supermarket, the hypermarket, and the discount store. The results demonstrate the explanatory capabilities of the model and reveal interesting conclusions related to the impact of spatial growth by store formats on food shopping patterns. There is more intense competition between the discount store and the hypermarket, and the classic supermarket form maintains a balanced rivalry with both. The development of larger discount stores seems to affect the supermarket market share more severely, whereas the development of discount stores that offer parking subtracts more demand from the hypermarket.

Keywords: Store format; Competitive interaction; Spatial coverage; Market share

1. Introduction

Retailing has undergone an intense transformation during the past few decades. One consequence of this dynamism is the diversification of retail store formats characterized by diverse positioning profiles. For example, in the context of food shopping, the introduction of self-service has been followed by the expansion of the hypermarket and the superstore, the development of diverse forms of discount stores, and an emphasis on convenience stores. The retail offer has been enriched by a variety of retail forms aimed at satisfying the needs of different types of consumers in various shopping situations. This heterogeneity enables researchers to distinguish interformat competition in the rivalry among different store formats.

The purpose of this paper is to contribute to the analytical methodology and the understanding of competitive interaction among store formats. Specifically, two sequential objectives are pursued:

1. To propose a market response model to assess the effect of changes in interformat retailing empirically. Our interest centers on the impact of the growth and expansion of store formats, and therefore the modeling emphasis is on the spatial dimension of retailing. Whereas previous attempts have related market share and retail format coverage statistics at an interurban or regional level, our modeling proposal focuses on capturing market response variations in an intraurban competitive scene. Furthermore, the modeling proposal embraces two methodological premises: (a) the use of standardized and comprehensible econometric tools and (b) the objective measurement of concepts that are compatible with usually available secondary data. Both aspects are critical to the adoption of quantitative models by retail managers (Simkin, 1996).
2. To assess intraurban competition patterns among three dominant formats in the food market: the classic supermarket and its larger and price-oriented versions; that is, the hypermarket and the discount store, respectively. The market coverage reached by these formats and their more specific forms produces differential effects across their competitors' market share, which should be taken into account both by retail firms in their location and diversification strategies and by public authorities in the assessment of possible retail planning policies and their economic impact.

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The relevance of the spatial perspective to the analysis of retail structure, growth, and evolution has been repeatedly pointed out in the marketing literature (Sparks, 1995). Spatial market coverage and location strategies constiute some of the most important and risky decisions of retail marketing management (Jones and Simmons, 1987). Along this line, research efforts to develop analytic methodologies to understand, explain, and even predict retail competitive interaction derived from location and spatial coverage strategies are especially significant (Babin et al., 1994). This paper contributes to this field of research by broaching the interformat level of competition rather than using traditional emphasis on retail chains or individual stores.

2. Interformat competition: conceptual framework

Defining a retail market structure involves representing the degrees of similarity or divergence among retailers along dimensions that have strategic relevance (Mason et al., 1993). Consequently, the attempt to understand retail market structure is closely linked to interest in classifying the different types of organizations and stores that make up an available retail offer. However, as pointed out by Burt and Sparks (1995), a marketing perspective requires a focus on the consumers' view and the classification of the retail offer according to the way in which they perceive it. In other words, competitive positioning becomes the key discriminating construct to define retail market structure when assessing its impact on market response. According to Goldman's (2001) conceptualization, this requires putting an emphasis on external elements, or the offering aspect of the stores, to the detriment of internal elements, or the know-how aspect.

In this context, retail formats or types can be defined as generic profiles in a continuum of competitive positioning. These profiles represent relatively homogeneous groups in a wide and heterogeneous spectrum of possible differentiation strategies. Brown (1995) suggests that retail stores can be classified according to the polarization of three fundamental axes: price/service orientation, assortment range, and size. These basic dimensions can be combined with other relevant factors, such as spatial accessibility, and atmosphere in order to outline and characterize store formats and their related benefits for consumers. However, because these interrelated variables are highly subjective, store formats that often are distinguished in retailing the literature lack a standardized definition. Although terms such as department store, convenience store, specialty retailer, and category killer are commonly used and denote clear divergences for many store attributes, there is no consistency in their interpretation (Dawson, 2000). Formal definitions of store formats in many statistical sources often are reduced to the consideration of a small number of objective, tangible, quantifiable attributes.

One of the retail sectors that has undergone some of the most intense dynamism and greatest diversification of store formats in recent years is the food sector. Burt and Sparks (1995) suggest four motivation that are satisfied, to some extent, by store formats that exist in European retailing: variety, price, convenience, and quality. From a much more objective and quantifiable perspective, they propose two main dimensions, or axes, in the classification of food store formats. One relates to the level of prices, which usually is contrasted with service quality, and the other relates to the extent of choice, which reflects the variety of products and brands and to some extent store size. The same dimensions are employed by Tordjman (1994). The classifications proposed in both studies are compared in Fig. 1. Although

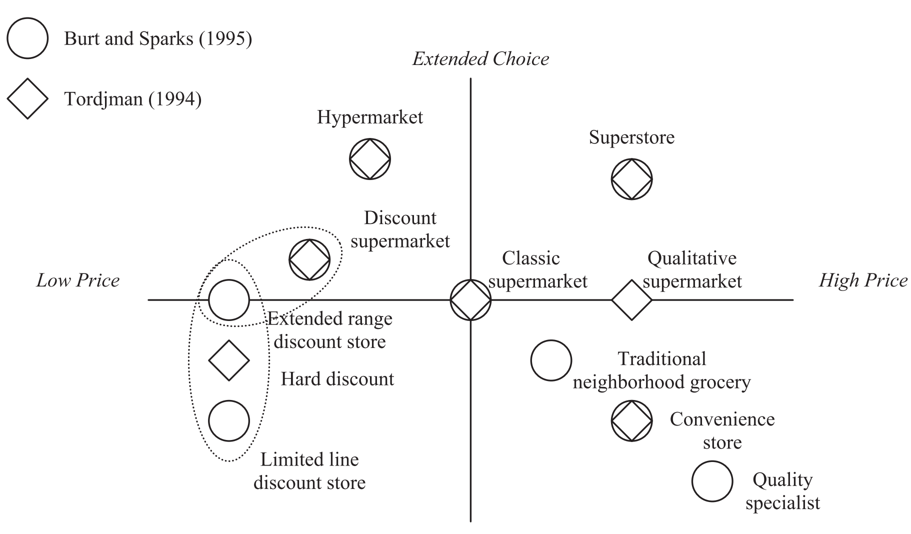

Fig. 1. Store formats in European food retailing.