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Customer segmentation using unobserved heterogeneity in the perceived-value–loyalty–intentions link

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ABSTRACT

Multiple facets of perceived value perceptions drive loyalty intentions. However, this value–loyalty link is not uniform for all customers. In fact, the present study identifies three different segments that are internally consistent and stable across different service industries, using two data sets: the wireless telecommunication industry (sample size 1122) and the financial services industry (sample size 982). Comparing the results of a single-class solution with finite mixture results confirms the existence of unobserved customer segments. The three established segments are “rationalists”, “functionalists” and “value maximizers”. These results point the way for value-based segmentation in loyalty initiatives and reflect the importance of a multidimensional conceptualization of perceived value, comprising cognitive and affective components. The present results substantiate the fact that assuming a homogeneous value–loyalty link provides a misleading view of the market. The paper derives implications for marketing research and practice in terms of segmentation, positioning, loyalty programs and strategic alliances.

1. Introduction

The vast majority of research on perceived value assumes that value perceptions affect all buyers in a comparable manner (e.g., Babin & Babin, 2001; Sheth, Newman, & Gross, 1991) and, therefore, buyers respond similarly in terms of outcome variables such as customer loyalty, word of mouth and willingness to pay. This assumption seems to be unrealistic in many instances of behavioral research. Indeed, some researchers argue that, for any given market offering, heterogeneous interpretations of perceived value and multiple customer segments which apply different weights to the value drivers, exist (DeSarbo, Jedidi, & Sinha, 2001). In a similar fashion, Bolton (1998) claims that a considerable amount of heterogeneity must exist because some customers perceive a higher value for a service offering than others.

Yet, only a few studies have explicitly accounted for buyer (consumer) heterogeneity in relation to perceived value (Ruiz, Castro, & Armario, 2007) and its predictive power regarding loyalty intentions. Additionally, extant research uses data from single industries only and does not investigate whether any common patterns of the value–loyalty link across industries emerge. This fact is surprising for at least two reasons: First, an aggregate analysis of perceived value and its relation to other purchase-related constructs may inappropriately combine members from heterogeneous sub-populations, resulting in parameter estimates that are misleading (DeSarbo et al., 2001). Second, heterogeneity among consumer preferences, attitudes, and perceived value is the main motivation behind customer segmentation (Olsen, Prebensen, & Larsen, 2009). Customer segmentation has become a central concept in marketing and many companies use segmentation to better satisfy customer needs.

Against this background, this study examines unobserved customer heterogeneity regarding the perceived-value–loyalty–intentions link, for the purpose of customer segmentation. A multi-industry comparison enriches the extant knowledge by exploring how the nature of perceived value affects the intention to stay loyal to a service provider. Based on consumption value theory (Sheth et al., 1991; Sweeney & Soutar, 2001), the study uses a multidimensional perceived value conceptualization to identify different consumer segments. These segments differ regarding both their perceived value assessments and associated effects on loyalty intentions towards the service provider.

The present study focuses on continuously provided services, such as those in the telecommunications or financial services industries, in which the duration of the provider–customer relationship is closely tied to profitability. Continuously provided services are characterized by the distinctive feature that the customer typically enters into a formal relationship with the service provider and subsequently consumes the service for a stipulated period of time (Bolton, 1998). Analyzing potential heterogeneity in the customer perceived-value–loyalty–intentions link is particularly important for such services' segmentation efforts.

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In order to determine the number of customer segments, the study uses regression mixture modeling. Mixture models assume homogeneous attitudes and intentions within each customer segment, and heterogeneous perceptions across segments (Wedel & Kamakura, 2000). Additionally, individual-level estimates account for individual heterogeneity.[4]

This study will be of use to marketing scholars and managers. Knowledge regarding different consumer groups can help firms tailor their market offerings and communications towards each segment more efficiently. Furthermore, determining which value dimensions drive customer loyalty can help firms to develop customer loyalty programs. Since the results are stable across industries, the results can be used in building strategic alliances with companies in other industries, focusing on the same type of customer. Marketing scholars can use the results to further enhance the concept of perceived value. This study also contributes to the issue of unobserved customer heterogeneity, which is still an under-researched area.

2. Conceptual background and model development

This section summarizes prior literature on consumer segmentation based on perceived value and on the empirical methods adopted for this research. Then, the authors briefly conceptualize perceived value and its relationship with loyalty intentions and introduce the conceptual model.

2.1. Prior literature on perceived value as a basis for segmentation

Smith (1956) is the first author to have recognized the existence of heterogeneity in the demand for goods and services. Smith bases his assumption of market heterogeneity on the economic theory of imperfect competition. He claims that market segmentation consists of viewing a heterogeneous market as a number of smaller homogeneous markets, with differing product preferences among important market segments. In other words, heterogeneity of customer needs and preferences is the driving force behind market segmentation.

Since its introduction, market segmentation has become a central concept in both marketing theory and practice (Wedel & Kamakura, 2000). Researchers have based the segmentation of markets on various factors, including cultural, geographic, and socioeconomic variables as well as personality, life-style, user status and usage frequency. Customer segments based on these variables may be easy to understand and determine, but may not provide the best possible explanatory power (Wedel & Kamakura, 2000).

As a consequence, marketing scholars highlight the need to account for heterogeneous customer perceptions and expectations in order to develop better firm strategies (e.g., DeSarbo et al., 2001; Slater & Narver, 1998). Similarly, DeSarbo et al. (2001) propose applying perceived value segmentation, emphasizing the failure to incorporate heterogeneity in the underlying dimensions of value. Finally, authors such as Zeithaml (1988), Holbrook (1994) and Sinha and DeSarbo (1998) agree that the sources of heterogeneity in perceptions of perceived value include differences among consumers, product classes, and consumption situations. Given the need for perceived value segmentation, the fact that few studies have specifically addressed this issue empirically is surprising.

Swait and Sweeney (2000) discuss an approach to modeling consumer choice behavior based on customers' value orientations and their perceptions of various product and store characteristics. Reflecting a consumer's general value orientation concerning electrical appliances ($n = 1040$), they identify three segments: (a) quality-conscious, (b) value-conscious, and (c) price-conscious. The framework they propose requires the joint estimation of a latent segment membership function and a discrete choice model.

In another study, DeSarbo et al. (2001) propose a finite mixture methodology to estimate the a priori unknown number of market segments and perceived value drivers at the market level. In doing so, they find significant differences in perceptions of value for money among business-to-business customers of an electric utility company ($n = 1509$).

Ruiz et al. (2007) explain market heterogeneity in terms of value perceptions in the wireless telecommunications industry ($n = 877$). Specifically, they explore how special treatment of the customer by the service provider, the level of customer involvement with the service, and the customer's accumulated experience with the company act as predictors of market heterogeneity. Based on regression mixture modeling, the authors find five latent segments depending on perceived value dimensions.

Wiedmann, Hennigs, and Siebels (2009) explore a multidimensional framework of luxury value to identify different types of luxury consumers according to the dimensions that influence their perceptions of value. With the application of a hierarchical clustering procedure, four value-based consumer segments emerge ($n = 750$): (a) the materialists, (b) the rational functionalists, (c) the extravagant prestige-seekers, and (d) the introvert hedonists.

In general, extant research that accounts for market heterogeneity conceptualizes perceived value as either unidimensional (DeSarbo et al., 2001; Swait & Sweeney, 2000; Zeithaml, 1988) or as multidimensional construct (Ruiz et al., 2007; Wiedmann et al., 2009), but without solid theoretical or substantive rationales for such conceptualizations. In contrast, this study conceptualizes perceived value based on consumption value theory (Sheth et al., 1991; Sweeney & Soutar, 2001). Hence, the study explicitly considers cognitive and affective dimensions with potential relevance for consumers' loyalty intentions.

Even more importantly, studies on customer segmentation have neglected the influence of perceived value on behavioral intentions such as loyalty. In other words, prior research has identified customer segments based on perceived value, but failed to consider potential consequences and outcomes of these evaluations. However, particularly the effects of value perceptions on loyalty intentions are of substantial worth for marketing practice in the light of the current competitive landscape of exchangeable service offerings.

2.2. Model development: the perceived-value–loyalty–intentions link

Researchers regard perceived value as one of the most powerful forces in today's marketplace (Patterson & Spreng, 1997) and an underlying source of competitive advantage (Woodruff, 1997), defining perceived value as the customer's overall evaluation of a market offering, based on their perceptions of what they receive and what they give (Zeithaml, 1988).

Recently, researchers have conceptualized perceived value as a multidimensional construct (Babin & Babin, 2001; Holbrook, 1994; Petrick, 2002; Sweeney & Soutar, 2001). Considering functional as well as hedonic and social aspects, the multidimensional approach overcomes the excessive concentration on economic value of the traditional value conceptualization and echoes the growing relevance of emotions in consumer behavior research (Sánchez-Fernández, Iniesta-Bonillo, & Holbrook, 2009). Furthermore, the approach accounts for the notion that consumption experiences usually involve more than one type of value simultaneously. Based on seminal work by Sheth et al. (1991) and Sweeney and Soutar (2001), this study adopts an extended four-dimensional conceptualization of perceived value, which comprises both cognitive and affective factors (see also Oliver, 2010). The

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