

Low Prices Are Just the Beginning: Price Image in Retail Management

Recent managerial evidence and academic research has suggested that consumer decisions are influenced not only by the prices of individual items but also by a retailer's price image, which reflects a consumer's impression of the overall price level of a retailer. Despite the increasing importance of price image in marketing theory and practice, existing research has not provided a clear picture of how price images are formed and how they influence consumer behavior. This article addresses this discrepancy by offering a comprehensive framework delineating the key drivers of price image formation and their consequences for consumer behavior. Contrary to conventional wisdom that assumes price image is mainly a function of a retailer's average price level, this research identifies several price-related and nonprice factors that contribute to price image formation. The authors further identify conditions in which these factors can overcome the impact of the average level of prices, resulting in a low price image despite the retailer's relatively high prices, as well as conditions in which people perceive a retailer to have a high price image despite its relatively low average price level.

Keywords: price image, retail pricing, behavioral pricing, retailer choice, branding

The notion that consumer decisions are influenced not only by a retailer's actual prices but also by consumer perceptions of the retailer's price image is gaining popularity among managers (Anderson 2005; Fagnani 2001; Martin 2008). This notion reflects managers' beliefs that, faced with rapidly emerging new retail formats, an increasing number of retailer outlets in which to shop, and the ever-expanding number of product options from which to choose, consumers tend to rely on their overall impression of a store's prices when making their purchase decisions. Furthermore, recent technological advances have empowered consumers with a variety of tools that further facilitate the gathering of price information when making purchase decisions.

Consider a consumer shopping for a television set at Best Buy. She walks along the display wall until she finds a television that fits her needs in terms of size, quality, and features. However, rather than wave over a sales associate, she pulls out her phone to check the price of that television at nearby stores and online retailers. Now imagine that the same consumer had been shopping not at Best Buy but at Wal-Mart, where she finds the identical television at exactly the same price. Would she be equally likely to pull out her phone and check prices at Wal-Mart as she would at Best Buy?

The answer to this question is largely influenced by a consumer's perception of the average level of prices of

these two retailers and, thus, the likelihood of finding the selected item at a better price elsewhere. Moreover, the importance of a retailer's price image extends beyond the likelihood that consumers will engage in comparison shopping while making their purchase decisions. Consumers also use their store-level price impressions to inform their choice of which retailer to visit, whether to purchase an item from that store, and how many items to buy.

Despite the increasing realization of the importance of price image among retailers and the escalating focus on managing consumer perceptions of retailers' prices, there has been relatively little academic research addressing the nature, antecedents, and consequences of price image. Indeed, the majority of existing research has focused on how consumers evaluate prices of individual items (for reviews, see Anderson and Simester 2009; Compeau and Grewal 1998; Mazumdar, Raj, and Sinha 2005) rather than on how they evaluate the overall level of a retailer's prices. Moreover, the research that has discussed issues related to retailers' price image is scattered across different domains, making it difficult to obtain a cohesive picture of how price image is formed and whether, when, and how price image influences buying behavior.

The goal of this article is to offer a comprehensive framework delineating the key drivers contributing to the formation of price image as well as the ways in which price image can influence consumer decision behavior. Contrary to conventional wisdom that views price image as mainly a function of the average level of prices of a given retailer, we identify a set of price-related and nonprice factors that can contribute to the formation of price image. We further identify conditions in which these price-related and nonprice factors can trump the impact of the overall level of prices, whereby a retailer can establish a low price image despite

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having relatively high prices or, conversely, can have high price image despite its relatively low overall price level.

Conceptual Background

In this section, we begin by defining the essence of price image as a fundamental marketing construct. We then develop a framework identifying its key antecedents and consequences, delineating the main factors that contribute to the formation of price image and outlining the key ways these factors influence consumer decision behavior.

Price Image as a Marketing Phenomenon

Prior research has examined price image in diverse contexts, under different labels, and using various operationalizations. Although it is related to other constructs that pertain to consumers' evaluations of prices (e.g., reference prices) and retailers (e.g., store image), price image is distinct from these concepts. Table 1 summarizes the various labels, definitions, and operationalizations of price image, along with those of similar constructs, to serve as points of comparison.

Building on prior research, we define price image as the general belief about the overall level of prices that consumers associate with a particular retailer. Several aspects of this definition of price image merit attention. First, price image is not an evaluation of an individual price or set of prices but is rather a consumer's overall impression of the aggregate price level of a retailer. Second, unlike consumer perceptions of the prices of individual items, which tend to be nominally scaled and expressed in terms of a particular currency (e.g., dollars and cents), price image is ordinarily scaled (e.g., expensive vs. inexpensive) and is not expressed in terms of a particular currency. Third, price image beliefs are informed by more than observed prices; they also incor-

porate nonprice cues, such as store decor and location and the retailer's reputation among other consumers.

A retailer's price image is analogous to the reference price of a specific item in that both can influence how consumers perceive prices. Yet unlike reference prices, which are most commonly represented as numerical point estimates (Briesch et al. 1997; Monroe 1973) or ranges (Janiszewski and Lichtenstein 1999), a retailer's price image is not reducible to a specific price or range of prices and instead represents a qualitative evaluation of the overall level of prices at a given retailer. Because it represents the overall level of a retailer's prices across product categories and price ranges, price image involves a more abstract categorical evaluation than the numerical precision of reference prices tied to specific offerings.

The concept of price image is similar to that of price perception in that both reflect consumer beliefs about a retailer's prices. Unlike price perception, which is commonly used in reference to a consumer's evaluation of a specific price (e.g., Berkowitz and Walton 1980; Janiszewski and Lichtenstein 1999), price image reflects the impression of the overall price level of an entire store. Furthermore, whereas price perception typically involves comparing a specific price with a reference price (Monroe 1973), price image does not require specific item prices and/or reference prices as inputs. Thus, consumers with limited price knowledge might be able to form an expectation of the general price level of a retailer solely on the basis of environmental cues, even before examining price tags (Baker et al. 2002).

Price image is similar to a retailer's brand image in that both represent an overall evaluation of the store that can influence the evaluation of the individual items offered in that store. However, unlike the store's brand image, which is a multidimensional construct comprising a variety of

TABLE 1
Price Image and Related Constructs

Construct	Definition	Relevant Articles
Price image (A)	Categorical impression of the aggregate price level of a retailer	Alba et al. (1994); Bell and Lattin (1998); Biswas and Blair (1991); Biswas et al. (2002); Brown (1969); Burton et al. (1994); Buyukkurt (1986); Estalami, Grewal, and Roggeveen (2007); Hamilton and Chernev (2010a); Hoch, Drèze, and Purk (1994); Srivastava and Lurie (2001, 2004); Urbany (1986)
Price image (B)	Multidimensional attitude toward a retailer's price level, value, price fairness, and frequency of specials	Zielke (2006)
Store image	Multidimensional attitude toward a retailer's prices, merchandise quality, assortment, decor, layout, location, and convenience	Baker, Grewal, and Parasuraman (1994); Berry (1969)
Price perception	Evaluation of a single price	Berkowitz and Walton (1980)
Price fairness	Judgment of whether a price is reasonable, equitable, and just, relative to similar exchanges	Bolton, Warlop, and Alba (2003); Kahneman, Knetsch, and Thaler (1986)
Reference price	Specific price or range of prices consumers use as a standard when evaluating a purchase price	Bolton, Warlop, and Alba (2003); Briesch et al. (1997); Janiszewski and Lichtenstein (1999); Thaler (1985), Urbany and Dickson (1991)

Notes: Prior research has also referred to price image as retail(er) price image (Simester 1995; Urbany 1986), store price image (Buyukkurt 1986; Desai and Talukdar 2003), expected basket attractiveness (Bell and Lattin 1998), price perception (Baker et al. 2002; Kuklar-Kinney and Grewal 2007; Ofir et al. 2008), store reputation (Biswas and Blair 1991), and objective store-price knowledge (Magi and Julander 2005). We treat these labels as being conceptually similar and consistent with the view of price image advanced in this article.

both price and nonprice aspects (Keller 2012; Lindquist 1974; Mazursky and Jacoby 1986), price image is a unidimensional construct that reflects consumer perceptions of the overall level of prices at a given retailer. In this context, price image can be viewed as one aspect of the retailer's overall brand image.

Price image is also conceptually related to consumer perceptions of market efficiency, which reflects the degree to which the different market options offer similar value to consumers (Chernev and Carpenter 2001). Thus, an efficient market is characterized by value parity such that equally priced products tend to offer equal value, whereas less efficient markets are characterized by less value parity. In this context, the concept of price image is similar to that of value parity because it reflects an overall evaluation of a retailer relative to the competition. Market efficiency describes consumer beliefs about the degree to which retailers in a given market are at value parity, whereas price image reflects consumer beliefs about the degree to which the prices of a given retailer are higher/lower than the competition.

A Conceptual Framework of Price Image

In developing our conceptual framework, we focused on antecedents and consequences of price image that previous pricing research had identified and investigated as well as those suggested by the research in other areas, including the research on impression formation (Anderson 1974), attitudes (Chaiken 1980), decision making (Bettman, Luce, and Payne 1998), and individual differences (Cacioppo and Petty 1982). The resulting framework delineates the key factors that contribute to price image formation (which we refer to as to "price image drivers") as well as the key ways in which price image influences consumer decision behavior (which we refer to as "price image outcomes").

In this context, we propose that a retailer's price image is defined as a function of two types of factors: retailer-based factors, which managers can directly influence, and consumer-based factors, which are particular to the individual buyers and which managers cannot directly influence. We further distinguish retailer-based factors that are directly related to price as well as nonprice factors used by consumers to draw inferences about a retailer's price image.

The price-related drivers of price image include (1) the average price level, which reflects how a retailer's prices compare with those of the competition; (2) the dispersion of prices, which reflects how high and low prices are distributed within a store; (3) price dynamics, which reflect how prices change within a store over time; (4) price-related policies, such as price-match guarantees, which a retailer uses to communicate price information to consumers; and (5) price-related communications, including sales tags and price-based advertising. The nonprice drivers of price image involve (1) the physical characteristics of the retailer, such as store location, ambiance, and decor; (2) the level of service the retailer offers, including size and helpfulness of the staff; and (3) the retailer's nonprice policies, such as return policies.

We further propose that the impact of these retailer-controlled factors on price image is influenced by the indi-

vidual characteristics of the consumer making the evaluation such that the same factors can have a varying impact on different consumers. Specifically, we identify two types of consumer-specific factors that can affect price image: (1) individual factors that are relatively consistent over time, such as price sensitivity, information processing style, and familiarity with market prices, and (2) situational factors that change depending on the circumstances surrounding the specific shopping episode, such as the financial consequences of the decision, time pressure, and the availability of cognitive resources. When formed, price image can influence consumers in two ways: (1) by influencing consumer beliefs, such as beliefs about the attractiveness and fairness of prices they encounter on a store's shelves, and (2) by influencing consumer behavior, including which store to patronize, whether to postpone the purchase of an item to search for a lower price, and how much to purchase on a given occasion.

Figure 1 presents an overview of the key drivers and outcomes of price image. We articulate the main aspects of this framework in more detail in the following sections, in which we outline the specifics of the key drivers of price image. We then discuss different approaches that researchers and managers can use to measure price image. Next, we identify several directions for further research, focusing on price image accuracy, price image and consumer learning, and the impact of price image on everyday low pricing (EDLP) versus hi-lo promotional pricing strategies. We conclude with a discussion of the important managerial implications of this research.

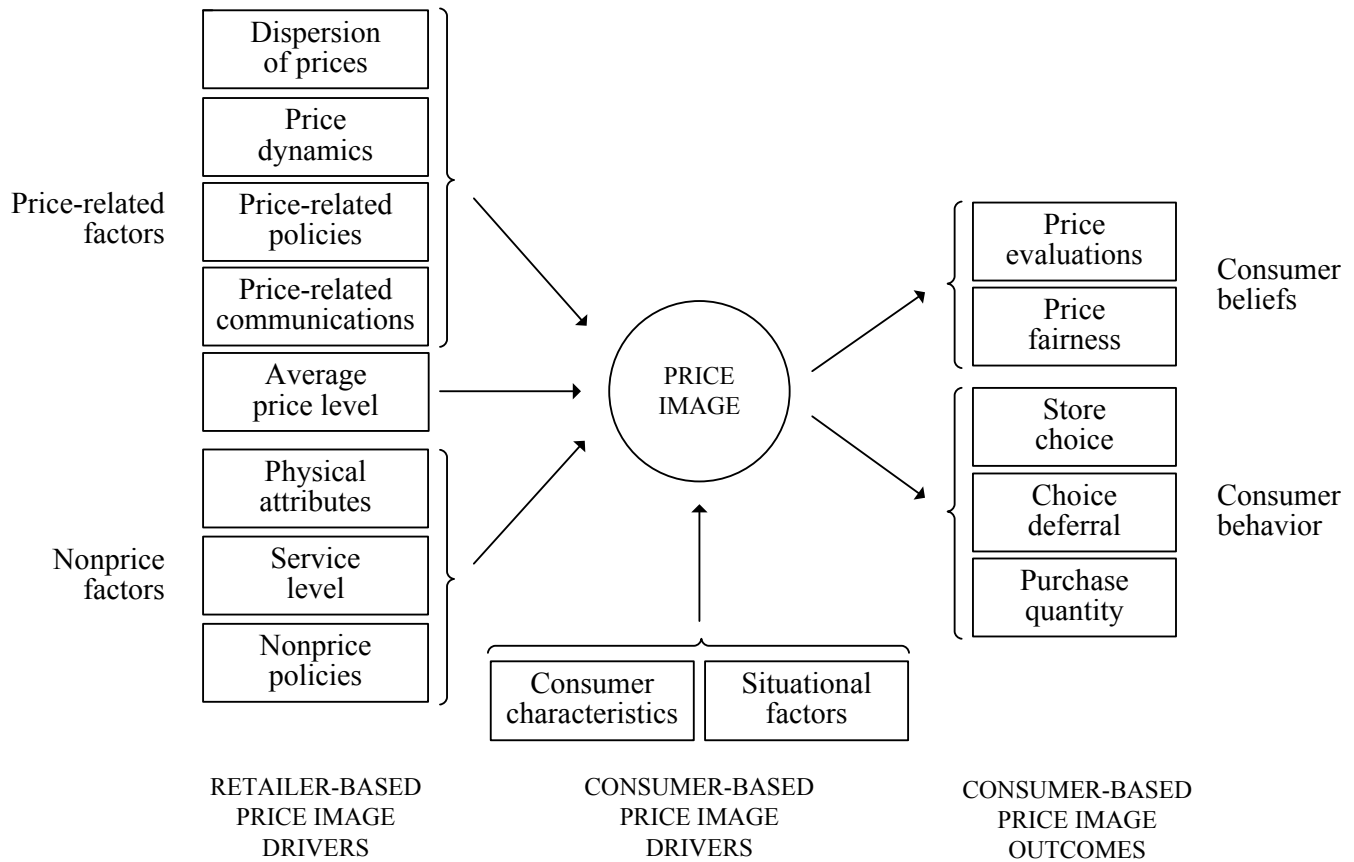
Price-Based Drivers of Price Image

Building on prior findings, we identify two basic strategies that retailers can use to manage price image: (1) varying the factors directly related to pricing and (2) varying the non-price information consumers use to draw inferences about the overall price level. In this section, we discuss the impact of the price-related factors in more detail and, in this context, identify five key price-related drivers of price image: the overall price level, the dispersion of prices, price dynamics, pricing policies, and price-based communications. We expand on these factors in the following subsections.

Average Price Level

A retailer's average price level reflects how this retailer's prices compare with those of the competition (e.g., whether a basket of goods from one retailer is, in reality, more or less expensive than the same basket of goods from another retailer). In this context, the average price level represents a retailer's actual prices rather than the consumer's perceptions of those prices. This factor has been traditionally considered the key driver of price image (Feichtinger, Luhmer, and Sorger 1988), whereby higher average prices are expected to result in a higher price image. This prediction is consistent with the empirical analysis of store choice, which documents that consumers are indeed sensitive to the average price level of a store when choosing where to shop (Bell and Lattin 1998; Singh, Hansen, and Blattberg 2006).

FIGURE 1
Conceptual Framework for Managing Price Image



Notes: The key antecedents and consequences of price image are grouped into three categories: retailer-based drivers, consumer-based drivers, and consumer-based outcomes. In the retailer-based antecedents, we single out the average price level from the other price-related factors to underscore the conventional wisdom that considers average price level to be the key driver of price image.

Normatively, an accurate assessment of the average price level of a store should involve evaluating a wide selection of prices relative to the market average. In reality, the overwhelming number of individually priced stockkeeping units, frequent price changes, special pricing, and nonoverlapping assortments (Stassen, Mittelstaedt, and Mittelstaedt 1999) make a comprehensive assessment of prices at most stores all but impossible for the average consumer. Instead, consumers often use a selective weighting model as a proxy for a thorough assessment of a store's average price level (Desai and Talukdar 2003; Lourenco, Gijbrecchts, and Paap 2012). In particular, frequently purchased, big-ticket categories tend to matter more in price image formation than do other categories. Research suggests a high degree of heterogeneity in the particular items used to form a price image, with many consumers relying on as few as three to five key prices to form an overall impression of a store (D'Andrea, Schleicher, and Lunardini 2006).

In light of the insight that not all items are equal in price image formation, retailers have identified known value items (KVIs)—that is, categories, brands, and package sizes believed to exert disproportionate influence on the formation of price image. By aggressively pricing these most

influential items (also referred to as “signpost items”; Anderson and Simester 2009), retailers have a better chance of influencing consumers' impressions of the average level of prices than they would by just lowering prices across the board. The use of KVI pricing strategies has been blamed for the counterintuitive quantity surcharges documented by Sprott, Manning, and Miyazaki (2003). According to this research, managers make the prices of the most popular package sizes attractive because they assume that these prices will disproportionately influence the store's price image—even if it results in higher per-unit prices for larger package sizes.

Dispersion of Prices

In addition to the overall price level, the degree to which a retailer's prices are competitive across different product categories can also influence price image. For example, one retailer may price all of its items at a fairly consistent discount relative to the market average, whereas another retailer could price some items higher than the market average and offer lower prices on other items. Even though these two retailers might have comparable average prices across all product categories, the resulting price image formed in consumers' minds is likely to be different, mean-

ing that consumers may form category-specific price image impressions in addition to a retailer's overall price image. For example, a consumer may believe that a particular grocery store has a high price image overall but that the bakery within that store has low prices.

Consistent with this line of reasoning, prior research has shown that consumers tend to be sensitive to the dispersion of prices within a store's assortment rather than just to the overall price level (Alba et al. 1994). Thus, research has shown that the frequency with which consumers encounter low prices when evaluating a retailer's assortment is more influential in determining price image than the depth of its price advantages (Alba and Marmorstein 1987; Buyukkurt 1986; Cox and Cox 1990). Furthermore, the frequency with which consumers encounter low prices when evaluating a retailer's assortment can influence price image even in contexts in which consumers already have strong prior beliefs about this retailer's price image (Alba et al. 1994).

The dispersion of prices across product categories and the resulting category-dependent price image may be one cause of cherry-picking behavior on the part of consumers (Fox and Hoch 2005). Thus, a consumer might shop at a combination of stores to get a basket of goods that he or she could have purchased at one store on the basis of the expectation that no one store has the lowest prices in every category. Such behavior is also consistent with the notion of compensatory inferences reflecting naive consumer theories of market efficiency (Chernev and Carpenter 2001), whereby superior performance on one attribute (e.g., low prices in one category) is offset by an inferior performance on another (e.g., high prices in another category).

Prior research has further argued that the dispersion of prices across categories can influence a retailer's price image by virtue of increasing the variance of the prices presented to consumers and, thus, shifting their price reference points. For example, Hamilton and Chernev (2010a) show that adding high-priced items to an assortment can either increase or decrease a store's overall price image depending on the goal of the consumer. In particular, when a consumer merely evaluates the available options without an explicit purchase intent, the presence of a high-priced item, by virtue of assimilation, will increase the overall evaluation of a retailer's prices. Conversely, when a consumer has a goal to purchase a specific option, the presence of a high-priced item, by virtue of contrast, can lead to a more favorable evaluation of the price of the to-be-purchased option, thus lowering the retailer's overall price image.

Price Dynamics

The proliferation of coupons, discounts, and price adjustments adds a dynamic aspect to a retailer's prices, whereby consumers frequently encounter prices that differ from a retailer's average price. Some retailers present consumers with prices that are relatively static over time, a strategy commonly referred to as EDLP, whereas others are marked by dynamic prices that can change frequently and/or dramatically.

Prior research has not established a clear relationship between price image and a retailer's pricing strategy—EDLP versus promotion based—whereby both strategies

can lead to lower price perceptions. On the one hand, an EDLP strategy is likely to promote a low price image in consumers' minds by eliminating the possibility that the timing of a customer's buying decision might not coincide with the availability of a promotion (Bell and Lattin 1998). Promotional pricing, such as hi-lo pricing, on the other hand, can lower a retailer's price image by establishing high reference price points in consumers' minds and offering temporary steep discounts on selected items (Kalyanaram and Winer 1995).

In addition to whether they offer price promotions, retailers also differ in whether they focus on the frequency or the depth of sales promotions. Thus, some retailers tend to offer frequent but shallow promotions, whereas others tend to offer relatively less frequent but deep promotions. In this context, prior research has argued that small but frequent discounts relative to a store's historical average price within a category are more likely to foster a low price image compared with infrequent promotions with deep discounts (Alba et al. 1999). Consistent with these findings, an empirical analysis of sales data has confirmed the relative importance of frequency over depth in price image formation, showing that frequent shallow price deals tend to increase sales volume more than less frequent deep discounts (Hoch, Drèze, and Purk 1994).

Price-Related Policies

A retailer's price image can also be influenced by its price-related policies, including competitive price-match guarantees, same-store lowest price guarantees, and payment form policies. We discuss these three types of price-related policies in more detail in this subsection.

Competitive price-match guarantees are meant to signal a retailer's confidence in its low prices and the commitment to maintain its low-price positioning. Research has shown price-match guarantees to result in both lower price image evaluations (Jain and Srivastava 2000; Kukar-Kinney and Grewal 2007; Srivastava and Lurie 2004) and increased consumer confidence in a retailer's price image (Desmet and Le Nagard 2005). Srivastava and Lurie (2001) have further argued that price-match guarantees can work as low-price signals even when actual store prices are objectively high.

The influence of a price-match-guarantee policy on price image formation depends on beliefs about not only the retailer but also the behavior of other consumers. Thus, previous research has found that price-match guarantees have a stronger influence on price image if consumers think that others are vigilant in checking prices and enforcing the policies (Srivastava and Lurie 2004). The influence of a price-match guarantee on price image depends on how easy it is for consumers to receive the advertised price-match benefit. Thus, a streamlined price-match adjustment process can enhance a retailer's price image, whereas a complicated, overly restrictive policy can lead to a negative consumer reaction (Estelami, Grewal, and Roggeveen 2007; Jain and Srivastava 2000).

A retailer's price image can also be influenced by the availability of a same-store lowest price guarantee that

promises to adjust the purchase price to the lowest price available in that store within a given time frame (e.g., 30 days). In this context, consumers are likely to perceive a retailer offering a low price guarantee as having a lower price image than a retailer that does not offer such a guarantee (Jain and Srivastava 2000). Anderson and Simester (2009) have further argued that lowest price guarantees offering protection against future discounts by the same retailer are relatively more effective than competitive price-match guarantees. Building on this prediction, one can posit that a promise to price-match a future discount might have a greater impact on a retailer's (low) price image than a promise to match competitors' prices.

Payment form policies, such as the acceptance of various types of credit cards, personal checks, and cash, can also influence a retailer's price image (Lindquist 1974; Mazursky and Jacoby 1986). These policies can affect price image by revealing possible additional costs that the retailer incurs. Some forms of noncash payment result in added costs for the retailer—for example, when credit cards charge the retailer processing or transaction fees (Thaler 1985)—whereas other forms of noncash payment, including personal checks, may increase the risk of nonpayment, thereby decreasing a retailer's revenue. In general, restrictive payment policies (e.g., not accepting credit cards, not accepting credit cards that charge the retailer higher processing fees) tend to be associated with a lower price image.

Price-Based Communications

Consumers gather price information not only by observing prices on the sales floor but also by observing retailers' communication of price information through their advertising, social media, and public relations activities. Price-based advertising is one of the most direct means retailers have of communicating a price image to customers and influencing how they evaluate prices (Compeau and Grewal 1998). Previous research has found the use of price advertising to increase consumers' price sensitivity (Kaul and Wittink 1995) by encouraging them to focus more on prices while shopping. Thus, the share of price-based advertising a store engages in relative to other types of advertising is likely to affect the store's price image such that the more often a store promotes its low prices in communications, the lower its resultant price image.

Prior research has argued that the effectiveness of price-based communication is also a function of a retailer's reputation for consistency between its advertised and actual prices (Tadelis 1999). Thus, price-based advertisements from a retailer with a reputation for deceptive practices are less effective than advertisements from a retailer known to advertise prices and sales promotions that are "real" (Anderson and Simester 2009). These findings imply that the influence of price-based communications on price image is a function of the perceived diagnostic value of these communications such that they will have a greater impact in the case of retailers with a reputation for credibility and be less effective in the case of retailers known for their deceptive advertising practices.

Previous research has further documented that advertising that includes salient reference prices (for a review, see Compeau and Grewal 1998) tends to be more effective at lowering price image than comparable ads that communicate the price without a reference point. Thus, Cox and Cox (1990) report that when a price was displayed in a grocery circular explicitly articulating the magnitude of the price savings (e.g., "save x cents"), consumers formed a lower overall price impression of the store than if the same price was offered without articulating the magnitude of the price savings. Decision research has further suggested that the perceived magnitude of savings can be also influenced by the way these savings are framed (Thaler 1985). Thus, a percentage-based representation (e.g., "save x%") can lead to a greater perceived savings when the actual savings are relatively low, whereas a monetary representation (e.g., save x cents/dollars) can lead to a greater perceived savings when the actual savings are relatively high.

Nonprice Drivers of Price Image

In addition to using price-related information to form an overall impression of the level of prices in a given store, consumers also rely on nonprice information to inform their price image impressions. Building on prior research, we identify several nonprice factors that are likely to influence consumer beliefs about a retailer's price image: the store's physical attributes, product assortment characteristics, the level of service, and nonprice store policies.

Physical Attributes

The physical attributes of the store can send powerful signals regarding the overall price level. Existing research has suggested that the physical characteristics can have even more influence on a store's price image than the actual, objective price levels (Brown 1969). Physical attributes—such as a store's design, size, and location—are impactful factors because consumers often process them heuristically (Chaiken 1980), which provides them with quick and easy signals of the overall price image (Buyukkurt and Buyukkurt 1986).

The physical attributes of the store that can influence price image may be categorized into two groups: those related to retailer costs and those signaling the sales volume (Brown and Oxenfeldt 1972). Thus, a central location, exquisite decor, and nicer amenities are often associated with higher retailer costs and, consequently, higher price image. Empirical investigations have found that stores with expensive, fashionable interiors and pleasant music tend to have higher price image impressions, whereas stores that are shabby and untidy tend to have lower price images (Baker et al. 2002; Brown 1969).

In the same vein, cues related to sales volume can also influence price image. For example, larger stores, stores that have larger parking lots, and stores that are located in large shopping centers tend to have a lower price image (Brown and Oxenfeldt 1972). These physical attributes may influence a retailer's price image because they signal that a store serves a large customer base and has the potential to obtain (and pass on to consumers) volume discounts from

manufacturers. Note, however, that the impact of a store's physical characteristics is also a function of the other non-price cues, such as the level of service, ambiance, and assortment, and can be reversed under certain circumstances (e.g., high-service, premium-priced stores), whereby larger stores will also be associated with a higher price image.

Assortment Characteristics

A retailer's price image can also be influenced by the assortment of items it carries, including factors such as the size and the variety of the assortment, the available inventory, and the uniqueness of the items it carries. In this subsection, we discuss these factors in more detail.

The size of the retailer's assortment (Chernev 2003; Chernev and Hamilton 2009; Iyengar and Lepper 2000) can have a direct impact on its price image. Thus, a retailer that offers more items (e.g., a big-box retailer) is often inferred to be able to offer lower prices because of economies of scale and, consequently, to have a lower price image compared with a retailer that offers a relatively small assortment of items (e.g., a convenience store). In the same vein, the variety of items within a retailer's assortment (Hoch, Bradlow, and Wansink 1999; Hamilton and Chernev 2010b; Kahn and Ratner 2005), and specifically the depth (i.e., variety offered within a given product category) and breadth (i.e., variety offered across product categories) of the assortment, can affect price image such that retailers that offer a greater variety of items often have a lower price image. Thus, consumers often perceive a retailer that offers a deeper assortment within a particular category (e.g., category killers) to have a lower price image than a retailer that offers a shallow assortment. Furthermore, both retailers that offer narrow but deep assortments (e.g., category killers) and those that offer broad but shallow assortments (e.g., discounters) can have a low price image.

Because a retailer's price image is influenced by the perceived, rather than actual, variety of its assortment, retailers can influence price image by varying the organization of the available items without necessarily increasing the actual variety offered. In this context, research has shown that consumers perceive disorganized assortments to offer significantly greater variety than the same assortments organized in a way that streamlines their evaluation (Hoch, Bradlow, and Wansink 1999; Kahn and Wansink 2004; Morales et al. 2005). Thus, by simply varying the organization of its assortment, a retailer can effectively influence the perceived variety of its offerings and its overall price image.

The impact of a retailer's assortment on its price image is also a function of the degree to which the items that compose this assortment have a symbolic meaning for consumers. This argument is based on the premise that consumers derive utility not only from the functional aspects of the items but also from the degree to which these items enable them to express their identity (Aaker 1999; Akerlof and Kranton 2000). As a result, consumers associate self-expressive items with higher prices (Chernev, Hamilton, and Gal 2011). Thus, a retailer carrying an assortment of self-expressive "designer" items (e.g., Target) is likely to have a higher price image compared with a retailer that car-

ries relatively less self-expressive, more utilitarian items (e.g., Wal-Mart).

Another factor that can influence consumer perceptions of a retailer's prices involves the availability of items and the frequency of stockouts. To the degree that consumers interpret stockouts as a signal of consumer demand, stockouts can be also used to infer the popularity of a given store, thus influencing its price image. Because demand is sensitive to price, consumers can infer that a store with frequent stockouts must have very low prices (Anderson, Fitzsimons, and Simester 2006).

Service Level

The link between service quality and price perception has been well documented in prior research, showing not only that consumers' evaluations of individual prices influence their evaluations of service quality (Parasuraman, Zeithaml, and Berry 1985; Voss, Parasuraman, and Grewal 1998) but also that consumers' perceptions of service quality influence their evaluations of individual prices (Zeithaml, Berry, and Parasuraman 1996). In line with the notion that consumers use service to evaluate the attractiveness of an individual price, research has suggested that consumers also use the level of service the retailer offers to infer a store-level price image such that higher levels of service tend to lead to higher price image evaluations, even when controlling for objective price levels (Brown 1969).

We can attribute the link between the level of service and price image to the notion that higher levels of service—including factors such as a greater staff-to-customer ratio, better trained employees, and extended business hours—imply a higher cost structure and thus signal a high price image. Consistent with this idea, research has shown that stores with extra services—including longer business hours and more pleasant, professional-looking employees—tend to have higher price images (Baker et al. 2002; Brown 1969).

In addition to serving as a cost signal, a high level of service is also typically correlated with high prices in consumers' minds (Zeithaml, Parasuraman, and Berry 1990). This association is especially likely to influence price image formation because of the explicit way many retailers promote their level of service in an attempt to create customer value and differentiate themselves from the competition. The high visibility of the level of service many retailers offer, in turn, is likely to increase the likelihood that consumers will use service level to inform their price image impressions.

Nonprice Policies

A retailer's nonprice policies, such as the leniency of its return policy and its social responsibility policy, can have a significant impact on its price image. In general, nonprice policies tend to influence price image by affecting consumers' perceptions of the retailer's costs: policies associated with higher perceived costs for the retailer will likely lead to a higher price image, whereas policies that are perceived to reduce retailer costs are likely to lead to a lower price image.

For example, people perceive generous return policies to incur extra costs of sorting, repackaging, restocking, and disposing of returned merchandise and, as a result, can signal a high price image. Likewise, generous return policies can signal a high level of service, which also serves as a high price image signal (Anderson, Hansen, and Simester 2009). The impact of return policies on a retailer's price image is also a function of the size of the retailer such that generous return policies have a stronger impact on price image of smaller rather than larger retailers. Indeed, larger retailers, such as national chains, have both the operational capacity to minimize the costs of returns and the clout to pass the costs of returns back to manufacturers; as a result, their return policies are less informative of their price image.

Similarly, a retailer's social responsibility initiatives, such as the donation of profits to charity, sustainable ingredient sourcing, and payment of above-market, socially conscious wages, can influence consumers' beliefs about the efficacy of a retailer's products in both positive (Chernev and Blair 2013) and negative ways (Luchs et al. 2010). At the same time, the perception that doing good can come with higher costs can lead to the perception that retailers that promote socially responsible business practices have a higher price image than those that do not.

Consumer-Based Drivers of Price Image

A retailer's price image does not depend only on the retailer's prices and nonprice characteristics; it is also a function of the way consumers process the available information to form an impression of the overall price level. In particular, prior research has shown that consumers can form disparate impressions of the same information, depending on what types of information they emphasize and how they combine and integrate that information (Anderson 1974). When forming a price image, consumers have many options for processing and integrating price and nonprice information, ranging from very deliberate processing that includes extensive surveying and comparison of price information across stores or retrieving price information from memory (Ofir et al. 2008) to a less systematic processing style that relies on the use of various nonprice heuristic cues (Brown and Oxenfeldt 1972; D'Andrea, Schleicher, and Lunardini 2006). In this context, the impact of the various price and nonprice factors on a consumer's perception of the overall level of prices at a given retailer is a function of whether consumers evaluate the available information using a more deliberate systematic decision strategy that relies heavily on price-based information or a peripheral heuristic strategy, in which nonprice cues are likely to dominate.

In this section, we distinguish two key types of factors that are likely to influence consumers' information processing: (1) intrinsic characteristics, which are particular to the individual consumer and are relatively stable over time, and (2) situational characteristics, which are a function of a consumer's occasional goals and tend to vary over time. We discuss these types of factors in more detail in the following subsections.

Consumer Characteristics

Consumer traits refer to the characteristics of the consumer that are relatively stable over time, such as price sensitivity, information processing style, and price knowledge. These traits, which influence how consumers form beliefs about a retailer's prices and the way they act on these beliefs, are important aspects of price image formation.

A consumer's price sensitivity reflects the degree to which item prices influence consumer decision processes and behavior (Kaul and Wittink 1995). In this context, scholars have argued that the degree to which prices influence consumers' decision making while shopping will affect both the amount and types of information consumers seek out when forming a price image (Grewal and Marmorstein 1994; Urbany 1986) and how much effort they put into integrating that information (Magi and Julander 2005). As consumers become more price sensitive, they tend to pay greater attention to prices when shopping. This greater reliance on price (rather than nonprice) cues when forming price image suggests that they will be more likely to use price image information in their decision processes and shopping behavior.

Another factor influencing price image formation involves the way consumers process the available information. Researchers have previously drawn a distinction between information processing styles, noting that people can use either deliberative, systematic, rule-based processing or quick, easy, heuristic processing when interpreting and evaluating information (Chaiken 1980; Payne 1982). Although both types of processing are available to consumers, some people are more naturally inclined to process information, including prices, in a more consistent, systematic, and ultimately more effortful fashion, whereas others are more likely to process information in a less effortful, less consistent, and less systematic fashion (Bettman, Luce, and Payne 1998; Cacioppo and Petty 1982; Frederick 2005). In the same vein, some consumers naturally tend to engage in more thorough decision-making modes, whereas others show a preference for "satisficing" and other nonsystematic decision-making styles (Schwartz et al. 2002; Simon 1955). These differences in consumers' innate propensity for thorough information processing affect price image formation by leading some consumers to engage in a more systematic processing of price-related information, resulting in a greater reliance on price (rather than nonprice) cues when forming a price image impression.

Consumers' price knowledge can also influence the formation of price image. Prior research has shown that new customers are typically least informed about prices, so for these customers, deep promotional discounts may act as a price cue, influencing their overall price perceptions of a given retailer (Anderson and Simester 2004, 2009). Likewise, Magi and Julander (2005) suggest that consumers who are new to an area are more motivated to seek out and compare price information across stores to inform themselves of the retail prices available in their new neighborhood. In contrast, consumers who have lived in an area for a long time and are familiar with the prices at the stores they frequent may devote very few cognitive resources to

processing information when making routine purchases (see, e.g., Hoyer 1984).

The way price knowledge influences price image formation is also a function of the degree to which consumers derive some social status from their price knowledge. Thus, “market mavens”—consumers who use their knowledge of the market as social currency, disseminating market information to others (Feick and Price 1987)—are likely to be especially motivated to seek out and remember price information to establish and sustain their social status. These consumers are also especially likely to process the available information in a more systematic way, focusing on the actual prices and price-related cues rather than using heuristics based on nonprice cues.

Situational Factors

In addition to relatively stable consumer traits, the transient aspects of any particular shopping experience can influence how consumers form price images. These situational factors include the financial consequences of the decision, time pressure, and the availability of cognitive resources.

The financial consequences of the decision constitute an important factor in price image formation that can influence which prices consumers are exposed to within a store and also how consumers weight those prices when forming an overall impression (Hamilton and Chernev 2010a). For example, during economic downturns, consumers are more likely to pay attention to actual prices and price-based (rather than nonprice) cues. Likewise, when purchasing big-ticket items, consumers are more likely to pay attention to factors related to the actual prices rather than relying on decision heuristics that lead to less effortful and less accurate price judgments. However, a decreased focus on actual prices and price-related information is likely to have a twofold effect. First, it will result in greater consumer reliance on a retailer’s price image when making buying decisions. Second, consumers who are less likely to process the available price information systematically are also less likely to update their price image when the actual prices are inconsistent with their previously formed price image of a given retailer.

Time constraints can also play a role in determining how consumers form a price image. Previous research has shown that time constraints affect different aspects of consumer decision making, including the use of heuristic decision cues and reliance on heuristic decision strategies. Thus, consumers are less likely to defer choice under time pressure (Dhar and Nowlis 1999). Research has further shown that heuristic, easy-to-process nonprice cues are more likely to influence price image formation when consumers are under time pressure (Buyukkurt and Buyukkurt 1986). The absence of time constraints is a necessary condition for applying effortful judgment and decision strategies; therefore, when consumers’ cognitive resources are constrained, they are forced to fall back on heuristic-based, nonsystematic information processing strategies that are informed by peripheral cues (Chaiken 1980; Dhar and Nowlis 1999).

Another important situational factor determining the formation of price image involves the cognitive resources

available to consumers. Like time constraints, the lack of cognitive resources prevents consumers from thoroughly processing the available information. However, unlike time constraints, which usually involve external restrictions, the availability of cognitive resources is an intrinsic factor that reflects the degree to which consumers have the capacity to process the available information. In this context, research has shown that many common shopping activities tend to deplete consumers’ cognitive resources (Vohs et al. 2008), leaving them less able to engage in systematic information processing and decision making (Hamilton et al. 2011). Consumers who are depleted of cognitive resources when shopping are less likely to process price information thoroughly and are more likely to rely on heuristics and non-price cues when forming a price image.

The Impact of Retailer Price Image on Consumer Behavior

Price image can influence consumers’ reactions to a retailer’s offerings in several key domains: (1) the way consumers evaluate prices of individual items offered by a retailer, (2) consumer perceptions of the fairness of a retailer’s prices, (3) consumer choice among retailers, (4) the likelihood that consumers will defer choosing a particular item from a given retailer, and (5) the quantity of items a consumer is likely to purchase. Here, the first two factors reflect the impact of price image on consumer beliefs, whereas the latter three factors reflect the impact of price image on consumer behavior. We discuss these factors in more detail in the following subsections.

Price Evaluations

Price image can influence consumers’ evaluations of the prices they encounter in two distinct ways. First, some scholars have argued that a retailer’s price image is likely to have a halo effect on evaluations of its individual prices, whereby consumers tend to evaluate prices in a way that is consistent with the retailer’s price image (Brown and Oxenfeldt 1972; Nyström, Tamsons, and Thams 1975; Oxenfeldt 1968). In this context, consumers can evaluate the same price as less attractive when encountered in a low-price-image store than in a high-price-image store.

Alternatively, others have proposed that instead of (or in addition to) adjusting their evaluations of a retailer’s individual prices, consumers adjust their internal reference prices in a way that is consistent with the retailer’s price image, adjusting their reference price up when shopping at a high-price-image store and down when shopping in a low-price-image store (Berkowitz and Walton 1980; Fry and McDougall 1974; Thaler 1985). As a result, evaluating a given price relative to a higher reference price is likely to lead to more favorable evaluations at high-price-image stores and less favorable evaluations in low-price-image stores. To illustrate, consumers could judge the price for a bottle of wine more favorably at a high-end wine retailer than at a discount wine store (Mazumdar, Raj, and Sinha 2005).

Subsequent research has shown that the impact of price image on price evaluations is a function of the availability

of reference prices, which determine whether consumers assimilate a given price toward or away from the retailer's price image (Hamilton and Urminsky 2013). Thus, consumers with a well-defined reference price for a particular item are more likely to use the retailer's price image to adjust the reference price and make their evaluations relative to the adjusted reference point—an approach that leads to the counterintuitive outcome that a low price image is likely to lead to less favorable (higher) price evaluations. In contrast, consumers without an available reference price are more likely to form price judgments consistent with a retailer's price image, assuming that the prices they encounter at a low-price-image store are, indeed, low and those at a high-price-image store are high.

Price Fairness

Another important consequence of price image is its influence on consumer judgments of price fairness, which reflects the degree to which consumers assess that a retailer's prices are reasonable, acceptable, or justifiable relative to the prices its competitors charge (Campbell 1999). Perceived price fairness is important to retailers because unfair pricing policies may lead to negative consequences for the seller, including consumers disadopting the store, disseminating negative word of mouth, or engaging in other behaviors that are damaging to the retailer (Campbell 2007; Xia, Monroe, and Cox 2004).

One source of perceived unfairness involves prices that violate consumers' expectations of the level of prices that a certain retailer should charge. Prior research has argued that such discrepancy is most often a function of the consumer's experiences with the retailer's past prices (Bolton, Warlop, and Alba 2003). This finding implies that consumers would be less likely to perceive a price at a low-price-image store to be unfair than they would at a high-price-image store, where previous experience has led them to expect high prices. Furthermore, fairness judgments may be influenced by price image even for stores with which consumers have no experience, provided that the observed prices violate the store's reputation for prices.

In addition to being based on consumer evaluations of a retailer's price history, price image can influence perceived price fairness by virtue of comparative judgments, whereby consumers tend to judge a price as unfair when it is higher than the price offered to someone else for a comparable good or service. In this context, because retailers with a higher price image are more likely to charge higher prices relative to the competition, consumers are likely to perceive their prices as unfair because they are not on par with those of the competition. More important, the effect of competitive price discrepancies is a function of the similarity of the price images of the competitive retailers, whereby consumers are more likely to perceive price discrepancies as unfair when they observe such discrepancies across retailers with similar price images. For example, consumers are more likely to view price differences as unfair if they occur between two low-price-image stores rather than between a low-price-image store and a high-price-image store.

Store Choice

In addition to influencing consumer price evaluations and their perceptions of price fairness, price image can influence consumer behavior. One important way a retailer's price image influences consumer behavior is its impact on store choice. This impact is likely to be more pronounced in cases of big-ticket purchases (Grewal and Marmorstein 1994), when information about a retailer's prices for specific items is not readily available (Bell and Lattin 1998), and for consumers who tend to rely on price-related and nonprice cues rather than on the actual price information (Buyukkurt 1986).

Prior experimental research has found that participants who are motivated to save money consistently tend to choose the store they perceive as having the lower price image (e.g., Alba and Marmorstein 1987; Burton et al. 1994). Evidence from studies of actual purchase behavior is also consistent with the idea that consumers aiming to save money tend to shop at stores with a low price image. Thus, incumbent stores tend to lose volume and revenue following the entry of a low-price-image rival, an effect almost entirely attributable to a decrease in store visits (Singh, Hansen, and Blattberg 2006). In the same vein, Van Heerde, Gijbrecchts, and Pauwels (2008) document that a price war makes consumers more sensitive to price image and more likely to use price image in deciding where to shop.

Choice Deferral

Price image can also influence choice deferral by changing the subjective likelihood of finding a better price at other stores. Thus, price image can influence consumers' willingness to purchase an item at a given retailer instead of deferring choice so they can search elsewhere for better prices. Consistent with this line of reasoning, prior research has shown that shoppers at a low-price-image store believe that the probability of finding a better deal elsewhere is low and, consequently, are less likely to defer choice (Biswas and Blair 1991; Biswas et al. 2002; Burton et al. 1994; Hamilton and Chernev 2010a).

A retailer's price image has a direct impact on consumers' "showrooming" behavior, in which shoppers browse merchandise in high-price-image stores that offer extensive product displays and high levels of service only to purchase the selected products at retailers with a lower price image. Showrooming is particularly prominent in high-service brick-and-mortar stores offering commodity products that can also be found at low-cost outlets—both online and brick and mortar. Thus, it is a retailer's price image, and not its format—online versus brick-and-mortar—that determines the likelihood of choice deferral. Brick-and-mortar retailers with a lower price image, such as Wal-Mart, Costco, and Aldi, are likely to have fewer customers using their sales floors as showrooms than are retailers with a higher price image, even in those instances in which the prices for a particular offering are the same across high- and low-price-image retailers (Srivastava and Lurie 2001).

Purchase Quantity

Price image can also influence the quantity of items consumers purchase at a store in two ways. First, when shopping at low-price-image stores, consumers are more likely to buy items across different product categories, effectively hastening the purchases they were planning to make in the future and/or shifting them from other retailers. To illustrate, a consumer visiting Costco to buy laundry detergent might end up at the checkout counter with a full shopping cart of unrelated items. In addition to increasing the scope of their purchases, consumers shopping at low-price-image stores are also more likely to purchase larger quantities of the same item. For example, upon encountering a low-priced yogurt at Wal-Mart, a consumer might ultimately buy larger quantities for future consumption.

The empirical evidence is consistent with this line of reasoning. For example, prior research has documented that consumers tend to spend more per visit at lower price image retailers than at those with higher price image (Singh, Hansen, and Blattberg 2006; Van Heerde, Gijbrecchts, and Pauwels 2008). Thus, shoppers at a low-price-image store may be more willing to fill their baskets—a prediction consistent with the finding that large-basket shoppers are more likely to prefer low-price-image stores (Bell and Lattin 1998). In contrast, shoppers at a high-price-image store tend to be much deliberate about the options they purchase and, as a result, purchase relatively fewer items.

Measuring Price Image

The wide-ranging impact that price image can have on consumer behavior raises the issue of identifying the key met-

rics that managers can use to measure price image. Building on prior research, we identify several important measures of price image, which we summarize in Table 2. We distinguish two basic approaches to measuring price image: a direct approach that involves asking consumers to state their beliefs about the level of prices at a given retailer and an indirect approach that infers consumers' price image beliefs from their behavior.

Direct measures of price image involve asking consumers to evaluate a store's overall price level. These measures can be either comparative, in which consumers rate price image relative to a standard provided by the researcher (e.g., a competing store), or noncomparative, in which consumers evaluate price image without the researcher providing an explicit reference point. Previous research has used several variants of direct noncomparative measure of price image. The simplest measure involves simply asking consumers to rate a store's price image (e.g., "How would you rate the prices at this store?") using a scale with "low" and "high" endpoints.

Researchers can also measure price image by asking consumers to evaluate the price of a particular item or basket of items ("How would you evaluate the price of this item/these items?"; see, e.g., Hamilton and Chernev 2010a)—a measure consistent with the notion that high-price-image retailers are believed to have higher priced items (Nyström, Tamsons, and Thams 1975). This measure is similar to asking consumers to rate a store's price image directly, the key difference being that the focus is on a set of specific items rather than on the overall level of prices in the store. The item-specific price image measure can be particularly useful in cases in which the price image of a retailer is category specific such that the same retailer is perceived to have a

TABLE 2
Measuring Price Image: Key Metrics

Measurement	Representative Operationalization	Relevant Articles
Price image rating, noncomparative	In general, how would you rate the prices at this store? ("low/high")	Buyukkurt and Buyukkurt (1986); Cox and Cox (1990); Desai and Talukdar (2003); Hamilton and Chernev (2009); Kukar-Kinney and Grewal (2007); Nyström, Tamsons, and Thams (1975); Srivastava and Lurie (2001, 2004); Zielke (2007)
	This store has very good prices.	Baker et al. (2002); Estelami, Grewal, and Roggeveen (2007)
	There are many products with low prices. I think that this store reacts to the price changes of competitors quickly.	Desmet and Le Nagard (2005) Zielke (2007)
Price image rating, comparative	This store's prices are likely to be below the competition's prices.	Buyukkurt (1986); Cox and Cox (1990); Estelami, Grewal, and Roggeveen (2007); Srivastava and Lurie (2004)
	Relative to its competitors, the overall prices at this store are ("lower/higher") than average.	Kukar-Kinney and Grewal (2007)
Store ranking	Rank order these stores from lowest priced to highest priced.	Brown (1969); Brown and Oxenfeldt (1972); Magi and Jurlander (2005)
Store choice	Select the store that you think has, in general, the lowest prices.	Alba and Marmorstein (1987); Bell and Lattin (1998); Hamilton and Chernev (2009)
Purchase intent	Would you buy this item at this store or search for a better price elsewhere?	Hamilton and Chernev (2009); Kukar-Kinney and Grewal (2007); Srivastava and Lurie (2001); Urbany (1986)
Price estimate	How much would you expect this item (basket of items) to cost at this store?	Alba et al. (1994, 1999); Buyukkurt (1986); Hamilton and Chernev (2009); Shin (2005); Simester (1995); Thaler (1985)

high price image in some categories and a low price image in others.

An alternative approach to measuring price image involves asking consumers to make a comparative judgment. These measures provide consumers with a reference store or set of stores as part of the measurement process. For example, a consumer could be asked to rank order a set of retailers on the basis of the perceived level (high vs. low) of their prices (e.g., Brown 1969). Price image can also be measured by simply asking consumers to choose the lowest priced store without asking them to evaluate a set of stores (Alba and Marmorstein 1987).

In addition to measuring price image directly, it can also be measured indirectly by examining some of its downstream behavioral consequences. One such outcome is the extent of the price search (e.g., “Would you buy this item at this store or search for a better price elsewhere?”)—an approach based on the notion that consumers are more likely to search for a better price elsewhere when shopping at a high- (vs. low-) price-image store (Urbany 1986). Additional indirect measures of price image include estimates of the price of a specific good (e.g., “The average price of this item in other stores is \$10. What would you expect the price to be at this store?”; see Hamilton and Chernev 2010a) or basket of goods (e.g., “How much would you expect this basket of goods to cost at this store?”; see Buyukkurt 1986) such that higher expected prices indicate a higher price image. Store choice can serve as another indirect measure of price image, whereby price image may be inferred from store choice using secondary data on the basis of the assumption that consumers’ primary goal is to select the store with the lowest prices (e.g., Bell and Lattin 1998).

Both direct and indirect measurements have advantages and drawbacks as tools for measuring price image. On the one hand, direct measures are easier to interpret because they tap price image without any interceding interpretation. The advantage of indirect measures, on the other hand, is that they are typically closer to the relevant behavioral outcomes of price image, including store choice and purchase likelihood. The disadvantage of indirect measures is that as the measure gets further from the construct of interest, it increases the likelihood of alternative explanations unrelated to price image. For example, a retailer trying to change its price image could use store choice (traffic) to measure the success of its price image strategy. However, because many factors affect store choice, it is difficult to disentangle the impact of price image from that of the other factors, which in turn reduces the likelihood of obtaining an accurate price image measurement. Given the complementary nature of the benefits of direct and indirect measures of price image, we can obtain a more accurate measure of price image by using convergent methods combining both types of measures.

Further Research

In addition to the many propositions regarding the antecedents and consequences of price image discussed in this article, several additional areas for further research merit particular attention. Specifically, we identify four

such areas: price image accuracy, price image and consumer learning, price image and compensatory inferences, and price image and EDLP versus hi-lo promotional pricing. We discuss these areas and identify directions for further research in the following subsections.

Price Image Accuracy

An important aspect of price image is the degree to which consumer beliefs about the overall level of prices at a given retailer correspond with reality. Conventional wisdom suggests that because price information has become easier to access and compare over time, consumers’ price image impressions have become better informed and, thus, more accurate. However, despite increased availability of price information, the price image of many retailers does not always accurately represent their actual prices. For example, even though Target’s prices on many items are lower than Wal-Mart’s (Kavilanz 2011), many consumers hold a consistently lower price image of Wal-Mart than of Target. In the same vein, consumers tend to believe that Whole Foods is a more expensive store than is merited by its actual prices (Anderson 2011). This raises the issue of identifying factors that influence the degree to which a retailer’s price image is an accurate representation of its overall level of prices. Next, we discuss several such factors and formulate a set of specific research propositions.

A factor likely to affect the accuracy of consumers’ price images is the extent to which a retailer’s price cues and nonprice signals accurately reflect its objective price level. When low-price signals such as inexpensive decor and poor service align with objectively low prices, accuracy is likely to be high. When these signals conflict with price reality, consumers are more likely to err in their price image judgments. Conflicting cues can be common, arising from managers’ desire to portray their stores as both low priced and high quality. For example, untidiness and clutter tend to signal a low price image (Brown and Oxenfeldt 1972), but most retailers would not deliberately keep their stores dingy for fear of the low-quality and low-price inferences their customers would draw. In addition, research has suggested that there are conditions under which retailers will deliberately provide price image signals that are inconsistent with actual prices. For example, retailers that incur low selling costs are especially likely to send low-price-image signals that are inconsistent with a higher overall price level (Shin 2005; Simester 1995). Thus, we can surmise that price image accuracy is likely to be a function of the consistency of heuristic cues with actual prices, such that price image accuracy decreases as the heuristic cues become less consistent with actual prices.

Another factor that might affect price image accuracy involves the method consumers use to form price impressions, specifically, the degree to which they rely on price information versus nonprice cues. Indeed, whereas both price-based cues, such as the frequency and depth of price discounts, and nonprice cues, such as the level of service provided, can have a direct impact on a retailer’s price image, one can predict that the more directly informative price-based cues will tend to be more accurate than those

based on nonprice information. For example, for a nonprice cue such as the level of service to inform a price image impression, consumers must first draw an inference about the cost to the retailer of providing a particular level of service and then draw a further inference about how much of those costs are likely passed along to the consumer in the prices charged. In contrast, even though price cues can lead to biased judgments about price level (e.g., Alba et al. 1994), they are still based on actual price information and so are likely to be more accurate. Therefore, we propose that the accuracy of a consumer's price image impression is a function of the weight consumers give to price information relative to nonprice cues when forming a price image such that the greater the importance of nonprice cues, the less accurate the price image is likely to be.

Price Image and Consumer Learning

Another important direction for studying price image involves examining the changes that occur in consumers' beliefs about the overall level of prices at a given retailer over time. Anecdotal evidence suggests that consumers' price image impressions tend to be resistant to change. Whole Foods serves as a salient example of a retailer that at times has gone to extraordinary lengths to lower its price image, including using guided tours through its stores to point out low prices, without much success in changing consumers' impressions (Hamstra 2012; Martin 2008). The reasons for the stickiness of a retailer's price image are an important topic for further research to explore.

A potential reason for the resistance of price image to change is the categorical nature of these store-level impressions as contrasted with the precise nature of individual price evaluations. Price images, as diffuse impressions, require dramatic and consistent discrepancies to be changed. In other words, consumers are unlikely to update their impressions of the price level of the entire store after encountering one price that is inconsistent with their price image. Instead, they will tend to update price images only after an accumulation of disconfirming price information. To the extent that consumers do not carefully track and remember disconfirming prices, they are less likely to update their price image beliefs. In contrast, when consumers evaluate individual prices, these comparisons are typically made relative to specific reference points and thus are more sensitive to changes. Therefore, we propose that price image beliefs lag behind beliefs about prices of specific items such that consumers are more likely to update their item-price beliefs than their beliefs about a retailer's price image.

Another possible factor explaining consumers' updating of price images is the inclination to evaluate the available information in a way that is consistent with prior beliefs. Thus, the strength of existing consumer price image beliefs is another factor that can influence consumer learning and the likelihood that consumers will adjust their price image in the presence of conflicting information. The failure to react to price information extends beyond consumers' choosing not to seek out disconfirming prices (Hamilton and Chernev 2010a; Srivastava and Lurie 2001; Urbany

1986). Rather, it is caused by existing beliefs that impede processing of conflicting information. This behavior is consistent with the research on preference formation documenting that beliefs tend to be resilient in part because consumers block out new information that is inconsistent with their opinions (Kardes and Kalyanaram 1992; Van Osselaer and Alba 2000). Building on this research, we propose that the degree to which consumers adjust their price image of a given retailer in the presence of discrepant information is a function of the strength of their current beliefs about a retailer's price image. Specifically, consumers who have well-established opinions about the overall price level of a retailer will be less likely to change their price image on the basis of new information than those who hold weaker price image beliefs.

Another possible reason for the stickiness of price image impressions is that consumers may not evaluate prices at a given retailer objectively (e.g., as compared with prices at other stores) but, instead, evaluate the prices they encounter as consistent with their existing price image (Nyström, Tamsons, and Thams 1975; see also Russo, Medvec, and Meloy 1996). To the extent that consumers evince a confirmation bias in evaluating prices as consistent with their prior beliefs, they will tend to assume that a price encountered at a high-price-image store is high and that the same price encountered at a low-price-image store is low. According to this account, after a consumer has formed a price image of a store, additional price information no longer serves as objective data to be used in updating prior beliefs about store-level prices. Rather, additional information will simply reinforce prior beliefs. Thus, these biased evaluations will discourage consumers from updating their price images because they will not even recognize that disconfirming price information is, indeed, inconsistent with the store's price image. Therefore, we propose that price image updating is influenced by a consumer's prior beliefs such that these beliefs will amplify price image cues consistent with the current price image belief and will downplay cues that are inconsistent with this belief.

Another fruitful avenue for further research involves the anecdotal evidence suggesting an asymmetry in how consumers update price image. It seems relatively common for retailers to tarnish a low price image (e.g., Wal-Mart, after introducing more upscale merchandise in the early 2000s; Kmart, after trying something similar with upscale apparel in the early 1990s; J.C. Penney, after dramatically scaling back on price promotions in 2012). However, examples of a retailer's price image shifting rapidly downward are more difficult to come by. For retailers aiming to maintain a low price image, it seems that damage can be done quickly: a few prominent pricing or promotion decisions may be enough to cause a rapid rise in a retailer's price image. Lowering a price image, in contrast, may require patience and diligence on the part of management. This asymmetry is broadly consistent with loss aversion (Kahneman and Tversky 1979)—the idea that consumers are more sensitive to losses, such as perceived increases in price, than they are to comparable gains, such as perceived decreases in price (Hardie, Johnson, and Fader 1993). Thus, we propose that there is an asymmetry in the updating of price images such

that consumers are more likely to adjust a price image up, indicating a belief in higher prices overall, than down.

Price Image and Compensatory Inferences

Another important yet unexplored question involves the compensatory inferences consumers form on the basis of the various price-related and nonprice cues. To illustrate, one of the reasons consumers often perceive Target to have higher price image than Wal-Mart is the self-expressive nature of many of the items that constitute the assortment Target carries. Thus, consumers might reason that because Target carries designer items, it must be more expensive than retailers that carry less self-expressive, more utilitarian items.

In general, compensatory reasoning draws on the inference that choice options (e.g., different retailers) are balanced in their overall performance such that an option that excels on a particular attribute is likely to be inferior on some of the other attributes—an inference also referred to as the zero-sum heuristic (Chernev 2007; Chernev and Carpenter 2001). Prior research has documented the presence of compensatory inferences in a variety of domains and across price and nonprice attributes (for a review, see Chernev and Hamilton 2008). Furthermore, compensatory inferences have been shown to occur spontaneously without being explicitly prompted—a characteristic that makes them especially relevant with respect to their impact on price image judgments.

Building on prior research, we can argue that compensatory inferences are likely to have a significant impact on price image and that this impact is likely to be a function of the prominence of the attributes on which a retailer is superior to the competition as well as the degree of this superiority. Thus, we can expect that the price image of a retailer that offers a far superior selection than that of its competitors and engages in socially responsible activities on par with its competitors is more likely to be subject to compensatory inferences that raise its price image than a retailer that is moderately superior on both dimensions.

The extent to which compensatory inferences influence consumers' price image formation presents a challenge for retailers who offer great service, a pleasant shopping experience, and designer merchandise because these attributes are likely to raise the price image of these retailers—often in spite of their competitive prices. Thus, the potential impact of compensatory inferences on the formation of price image raises the issue of identifying strategies to attenuate this impact.

One such attenuation strategy involves highlighting a less relevant attribute. Accordingly, a retailer that is superior on an attribute that might raise its price image could emphasize an attribute that is inferior (e.g., store location), because previous research has shown the presence of an inferior, albeit irrelevant, attribute to negate the effect of compensatory inferences by decreasing the likelihood of consumers relying on the zero-sum heuristic (Chernev 2007). An alternative approach to attenuate compensatory inferences involves providing consumers with a justification for the retailer's superiority on a given attribute (e.g., "we can offer superior service because our employees are vested in

the company"). Thus, providing a reason, even a rather trivial reason, can help dispel the likelihood of counterarguments (Langer, Blank, and Chanowitz 1978) and thus potentially reduce the occurrence of compensatory inferences.

Price Image and Promotional Pricing

Another area for further research is identifying the decision strategies consumers use to process the available information when forming a price image and the impact of these strategies on a retailer's pricing format—namely, EDLP and hi-lo promotional pricing. One key difference between these two strategies from a price image perspective is the dispersion of prices over time. Thus, even though retailers might have the same average prices, a retailer following an EDLP strategy tends to offer prices that change very little over time, whereas a retailer following a hi-lo promotional pricing strategy tends to offer prices that fluctuate dramatically over time.

The intertemporal price variation across these two pricing formats is likely to affect the strength of the price image beliefs consumers form about EDLP and hi-lo stores. Because price image reflects beliefs about the general price level expected, more variation in prices over time will lead to greater variance in a store's price image among individual consumers such that beliefs about the price image of a hi-lo store, in which price dispersion is greater, will vary among consumers to a greater extent than will beliefs about the price image of an EDLP store. Thus, we propose that the price image of a hi-lo store is associated with greater price image uncertainty than that of an EDLP store.

Furthermore, the price image of an EDLP versus a hi-lo retailer is likely to be a function of the heuristics consumers use to evaluate the relevant information. Building on prior research on the methods consumers could use to integrate store prices into an overall impression (Van Ittersum, Pennings, and Wansink 2010), we distinguish two heuristics that are particularly relevant to the impact of store pricing heuristics on price image formation: a KVI heuristic and a basket heuristic. Thus, when forming a price image, a consumer using a KVI heuristic would focus on the prices of those offerings that are most frequently purchased and that are readily comparable across retailers. A consumer using this heuristic would evaluate the price of each KVI encountered at a store relative to a reference price and then average these evaluations into an overall impression (Anderson 1974). In contrast, a consumer using a basket heuristic would not gather price information piecemeal throughout the shopping trip but would instead make a single evaluation of the price of the entire basket of goods at the register. He or she would evaluate this price by comparing it with a basket-level reference price derived from a previous shopping experience.

In this context, we propose that different price aggregation heuristics will lead to different price images, potentially giving certain types of retailers a competitive advantage. Thus, if hi-lo stores follow conventional wisdom and focus their lowest prices on commonly purchased, easily comparable items, a consumer using a KVI heuristic will tend to form a lower price image of a hi-lo store than would

a consumer using a basket heuristic. In contrast, because a basket heuristic is sensitive to the prices of all items purchased and not just those most likely to be on sale, a consumer using a basket heuristic will tend to form a lower price image of an EDLP store than would a consumer using a KVI heuristic. Therefore, we propose that a store's price image depends on both the store's price format and the consumer's price aggregation heuristic.

Conclusion

This research offers several important implications for managers on how to develop a meaningful value proposition by creating a consistent perception of the overall level of prices in the minds of target customers. Specifically, the conceptual framework we offer delineates the key drivers of price image and identifies the ways they affect consumer decision processes and behavior. In doing so, this research helps dispel some of the common misconceptions reflected in the conventional wisdom about creating and managing price image.

A common misperception about price image is that it is simply a reflection of a store's average price level and, thus, that managing price image merely involves managing prices. In contrast, we argue that the overall level of prices is only one of many factors in determining consumers' overall price image impressions of a retailer. Indeed, we suggest that lowering prices without managing the other price-related and nonprice drivers of price image may not have a significant impact on a retailer's price image. This is because consumers often form and update their price image using a variety of price-related and nonprice cues rather than relying on a retailer's actual prices.

Consumer reliance on nonprice factors when forming price image can help shed light on the discrepancy between the overall level of prices and the price image that haunts many retailers. For example, people commonly perceive Whole Foods to be significantly more expensive than most other grocery stores, despite its having prices that are largely in line with competitive offerings (Anderson 2011). Notably, this discrepancy exists despite Whole Foods' concerted efforts to lower its price image, which include adding lower priced options to its assortments and emphasizing lower prices in its communications (Hamstra 2012; Martin 2008). The challenge Whole Foods faces is that it also presents consumers with nonprice cues that project a high price

image—including upscale ambiance, expensive specialty offerings, premier locations, a high level of service, engagement in socially responsible activities, and a lack of price-match guarantees.

Whole Foods is not alone on the losing end of a gap between actual prices and consumer beliefs about those prices. Many consumers view Target as a higher priced store than Wal-Mart, even though a recent study that tracked the prices of 55 different food and nonfood products over three months revealed that Target's prices are consistently as low or lower than Wal-Mart's (Poggi 2011). In the same vein, anecdotal evidence suggests that people tend to perceive Nordstrom as a pricier alternative to Macy's even though it has comparable prices in many categories and lower prices in some categories. In this context, an important implication of the research presented in this article is that price image is not determined by prices alone but is a function of all the marketing-mix variables; thus, it is an important aspect of a retailer's strategic positioning.

In addition to delineating the antecedents of price image, this research has important implications with respect to understanding the behavioral consequences of price image. Thus, we delineate the variety of ways in which price image influences consumer decisions and identify a set of metrics that can be used to measure price image. The issue of measuring price image is an important yet frequently overlooked aspect of managing price image. Managers often focus primarily on comparing prices across retailers rather than on examining consumers' overall impressions of a retailer's prices. In this context, identifying the key price image metrics that managers can track as part of their marketing dashboard is an important aspect of our research.

The profound impact that a retailer's price image can have on consumer behavior and our conclusion that price image formation is a function of both price-related and non-price factors further suggest that managing price image is an important marketing function that must be reflected in the company's organizational structure. Indeed, because many managers think that price image is a direct result of the actual prices charged, price image management is often viewed, like pricing decisions, as a tactical problem. In contrast, our research suggests that price image is a company-level strategic concern that requires centralized management oversight reflecting its strategic importance and its holistic nature.

APPENDIX

Antecedents and Consequences of Price Image Identified in Prior Research

Publication	Method	Key Findings
Alba et al. (1994)	Experiment	Frequency of price savings is a stronger driver of price image than magnitude of price savings.
Alba and Mar-morstein (1987)	Experiment	Frequency of price advantage is a strong influence on formation of a low price image.
Alba et al. (1999)	Experiment	Frequency of price savings is a more influential driver of price image when processing price information is difficult, but magnitude of price savings is more influential when processing price information is easy.
Anderson and Simester (2009)	Survey	Inaccurate price cues, such as sales tags on items that are not discounted relative to other retailers, tend to damage a retailer's reputation for low prices.

APPENDIX
Continued

Publication	Method	Key Findings
Baker et al. (2002)	Experiment	A favorable store environment—including pleasant, professional-looking store employees, organized displays, fashionable color scheme, and classical music—leads to a higher price image.
Bell and Lattin (1998)	Empirical model	Large-basket shoppers weight frequency of price savings more heavily than small-basket shoppers, who weight magnitude of savings more.
Berkowitz and Walton (1980)	Experiment	Price image drives evaluations of advertised price discounts, with higher discounts producing less positive responses at low-price-image stores.
Biswas and Blair (1991)	Experiment	Relative to high-price-image stores, reference price advertising by low-price-image stores results in higher shopping intention but no difference in perceived savings.
Biswas et al. (2002)	Experiment	Low price guarantees are more effective for stores with a low price image.
Bolton, Warlop, and Alba (2003)	Experiment	Because price fairness is a function of expected prices, people are less likely to perceive a given price as unfair at a high-price-image store, where consumers expect prices to be higher.
Brown (1969)	Survey	Price image is influenced by many nonprice factors, including store size, newness, and service. The accuracy of price image rankings varies dramatically by market.
Brown (1971)	Survey	Shopping behavior, shopping attitudes, and socioeconomic variables all show very weak association with price image accuracy.
Brown and Oxenfeldt (1972)	Survey	Factors related to higher store costs (e.g., better service) tend to be associated with higher price image; factors related to higher sales volume (e.g., larger store) tend to be associated with lower price image.
Burton et al. (1994)	Experiment	Price image has a strong effect on attributions of retailer advertising and, in turn, on perceived value and shopping intentions.
Buyukkurt (1986)	Experiment	Frequency of price savings is a stronger driver of price image than magnitude of price savings.
Buyukkurt and Buyukkurt (1986)	Survey	Nonprice store attributes are more likely to influence price image formation when price information is difficult to process or when consumers are under time pressure, are experienced shoppers, or expect prices to vary by store.
Chellappa, Sin, and Siddarth (2011)	Empirical model	The suboptimal dispersion and variance in prices observed in markets with little competition is difficult to account for without considering a firm's goal of creating and maintaining a price image.
Cox and Cox (1990)	Experiment	Consumers form lower price images of stores that advertise price reductions.
D'Andrea, Schleicher, and Lunardini (2006)	Survey	Reference price is the most important factor that consumers use in forming a price image. Other factors include price comparison, price presentation format, price sensitivity, and price comparison frequency.
Desai and Talukdar (2003)	Experiment	Some categories are more influential in price image formation. The most influential categories are those that are purchased frequently and that are also relatively expensive.
Desmet and Le Nagard (2005)	Survey	Low price guarantees lead to both a lower price image of the store and higher consumer confidence in a store's low price image.
Dickson and Sawyer (1990)	Survey	Price reductions only lead to a lower price image when consumers notice them. Only approximately half of consumers surveyed noticed prices marked as special reductions.
Estelami, Grewal, and Roggeveen (2007)	Experiment	Having to take advantage of a price-match guarantee results in a higher price image. This effect is more pronounced as the difference between the price paid and the lower competitor's price increases.
Feichtinger, Luhmer, and Sorger (1988)	Analytic model	Prices and advertising both contribute to price image, but store prices are the main driver of price image formation. Equilibrium prices are lower when the price image goal of the retailer is considered.
Fry and McDougall (1974)	Experiment	Consumers show greater acceptance of advertised prices from low-price-image stores than from high-price-image stores.
Hamilton and Chernev (2010a)	Experiment	Adding a few low-priced items to an assortment leads to a lower price image only when consumers choose the low-priced items. In contrast, when they choose one of the other available options, adding a few low-priced items can cause a contrast effect, resulting in a higher price image.
Hamilton and Urminsky (2013)	Experiment	In the absence of an available reference price, low price image leads to lower evaluations of a given price, lower expected prices, and preference for higher priced options.

APPENDIX
Continued

Publication	Method	Key Findings
Hoch, Drèze, and Purk (1994)	Field experiment	The influence of price changes on volume and profit is a function of pricing format such that a price decrease at an EDLP store results in a large profit decrease, and a price increase at a hi-lo store results in a large profit increase. Frequent, shallow price deals increase sales volume and profit.
Kukar-Kinney and Grewal (2007)	Experiment	The effect of price-match guarantees in lowering price image is more pronounced for brick-and-mortar retailers than for Internet retailers.
Lourenco, Gijsbrechts, and Paap (2012)	Analytic and empirical model	Categories that include frequently purchased, big-ticket items, broad price ranges, substantial quality differences, and lack of frequent or deep promotional price cuts are especially influential in price image formation.
Magi and Jurlander (2005)	Survey	Price search, length of residence, and education have the greatest effect on price image accuracy.
Nyström, Tamsons, and Thams (1975)	Experiment	Evaluations of a price are higher at a store with a higher price image.
Ofir et al. (2008)	Experiment	Less knowledgeable consumers use the ease with which low prices are recalled to form a price image; more knowledgeable consumers use the number of low prices recalled.
Oxenfeldt (1968)	Conceptual	Evaluations of a price are higher at a store with a higher price image.
Shin (2005)	Analytic model	Retailers incur penalties for not communicating price level accurately. However, for firms with low-enough selling costs, equilibrium exists among inaccurately communicated price levels.
Simester (1995)	Analytic model	Low-priced stores will always accurately convey their price image through advertising; high-priced stores are motivated to hide their true price level through advertising when they can earn sufficient profit from the unadvertised items.
Sprott, Manning, and Miyazaki (2003)	Empirical model	More frequently purchased stockkeeping units disproportionately affect price image formation.
Srivastava and Lurie (2001)	Experiment	Price-match guarantees affect price image only in the absence of other low-price cues. Price-match guarantees are effective even when actual store prices are high.
Srivastava and Lurie (2004)	Experiment; survey	The influence of price-match guarantees on price image is moderated by beliefs about the degree to which other consumers are engaging in price search.
Urbany (1986)	Experiment	Consumers with price image knowledge engage in less searching than consumers without price image knowledge (i.e., those with poorly defined prior beliefs).
Van Heerde, Gijsbrechts, and Pauwels (2008)	Empirical model	Price image affects store choice and spending. A price war induces consumers to shop around, to the benefit of stores with a low price image.
Zielke (2006)	Survey	A multidimensional scale of price image is presented that includes measures of price value, special offer frequency, price fairness, price dominance, and confidence.

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