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Strategic thinking leading to private brand strategy that caters for customers' shopping preferences in retail marketing

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This study proposes a private brand strategy for retail marketing through brand equity to explore customers' shopping preferences and it uses structural equation model to analyze the model's appropriateness. There are two kinds of cross-categories articles employed as the bases of a questionnaire for respondents; they include household papers and soft drinks. This study proceeds with convenient samples along with a face-to-face questionnaire in stores and also chooses consumers shopping in Carrefour, RT-Mart, and Taisuco hypermarket as samples. This proposed model displays the rigorous and robust method of SEM, and the statistically significant level of the model fits into the Likert scales (GFI = 0.947, CFI = 0.975). It reveals that private brands retail channels should focus on a private brands strategy that leads to brand equity, if possible. If the retailers offer a more complete PB strategy and bridge it with brand equity as a mediator, customers' shopping preferences will be reflected on the store's performance. Then, retailers can formalize a strategic retail channels' power and property: getting PB, bridging and mapping PB.

Key words: Private brand strategy, brand equity, customers' shopping preference.

INTRODUCTION

Private brands strategy has become a superior category of management skills and a basis for establishing customers' shopping preference in retail channels. The marketing channels are facing increasingly fierce challenges, which include continuous development, new product types, new category management and new privately own brands that meet customers' diverse demands. With rapid marketing advancement, more innovative types of retail channels, such as department stores, hypermarkets, wholesale warehouses, warehouse clubs, shopping malls, shopping centers, power centers, theme/festival centers and outlet centers are developed and introduced into the market.

However, the retail channels in the market share without a private brand development policy are not able to cope with the other competitive retail channels. What does the store strategy mean to mass consumers? As these retail channels (that is Wal-Mart, Carrefour) intensify their presence in overseas countries? What is the major trend of product strategy in retail development?

When the retailers set the prices, what kind of brand purchase policies should be instituted? The purpose of this article is to find a method by which both retailers and suppliers can develop brands targeted for specific purposes. When setting SKUs (stock-keeping-units) in shelves, do retail channels apply strategic pricing rules to manufacturers' wholesale prices?

Sales of private brand (PB) in retail channels now exceed US$48 billion in the region of America and over 15% of supermarket sales, even over 44% of grocery shoppers regularly buy private brand in America (Hoch, 1996; Sethuranman, 1995; Batra and Sinha, 2000). As retail channels, they always like to develop PB because of their potential to increase store loyalty, channel profitability, bargaining power to suppliers, control the space on gondolas or shelves and so forth (Richardson et al., 1996).

Customers' shopping preferences and the frequency of shopping growth is based upon the PB price advantage (average 21%) over national brands (Kolter, 2000). Fur-

thermore, when making shopping decisions, the quality of PB seems more important to customers than its price (Hock and Banerji, 1993). If customers want to save money at retail channels, retailers have some alternatives using DM (direct mail). For example, consumers can convert DM attached coupons, take advantage of the store's advertised specials, look for presentations of promotion items or shelf discounts, or purchase the PB in retail channels. As consumers search brands to save money, there are two choices; one is seeking famous brands to buy, the alternative is to shop PB products that are typically priced under national brand articles. Questions regarding preferences of consumers with a common target to purchase goods are yet to be answered.

Authors like Amrouche and Zaccour (2007) imposed shelf-space allocation to national and private brands as well as setting their prices. This research acquires the products' self-space allocation for hypermarket retail channels to make a strategic decision as to when they want to position their private brands in stores. Value oriented customers play an important role in the bargaining power between the private brands and famous brands. Retailers may increase their private brands strategically to decrease the space for national brands (Garretson et al., 2002). Retail channels always use private brands to pressure suppliers and to lower the price in order to increase competition with famous brands using cost. But the suppliers of famous brands may strategically use augmented packaging for sales or price promotion to escape the eroding of sales or space from the stores' private brands.

Previous research investigates this cross-category management to test shopping preferences from the suppliers' and retailers' perspectives. In studying the PB program of retailers, Hoch and Banerji (1993) find that PBs have higher shares in large categories offering high margins where they compete against fewer national manufacturers who spend less on national advertisement (Batra and Sinha, 2000). In this research, we focus on the dimension of private brands to investigate the customers' shopping preferences and to measure the relationship about its position in retail channels. This study examines the role of PB in the channel to study customers' behavior regarding their preferences when shopping and it also tries to shed physical operational perception on the retail channels regarding how to determine a strategic position with regard to the private brands.

The strategies of private brands have been, and conti-nue to be, very popular in retail channels. The Carrefour hypermarkets use their own "Carrefour" name as private brands. Marks and Spencer, a British retailing legend, has its own St. Michael's brand labels to carry its product lines. Some notable American retailers such as Sears, The limited, J.C. Penny, Montgomery and Sam's Club, etc. also committed themselves to private labeling as a

way of generating loyalty to their stores and in order to earn extra profits. This is because private brand merchandise generally affords retailers higher gross margins than comparable branded merchandise (Coughlan et al., 2006). Retail channels, private brands have resulted in great power to suppliers and consumers.

This study tries to figure out the strategic maneuvering from the above discussion involving the steps of getting it, bridging it and mapping it to find a strategy for private brands. Thus, a conceptual model frame is developed as shown in Figure 1.

LITERATURE

Getting private brand strategy configurations

Manufacturers' brands have long dominated the retail scene. However, an increasing number of retail channels have created their own private brands (or store brands, private labels). Private brands increasingly perform the same function for consumers as manufacturers' brands. Retailers have traditionally positioned their private labels as a low-priced alternative to national manufacturer brands (Blackwell, 1997). Warehouse clubs such as Price/Costco and Sam's emerged, partly because of their capability of shifting free delivery functions, brand promotions and high quality of products to consumers in exchange for lower prices. With the overwhelming success of some private brands in European retail (e.g. Marks and Spencer, Tesco, Carrefour) and the popularity of President's Choice private brand in Canada, strong retail private brands have become a source of intense interest (Collins-Dodd and Lindely, 2002).

Retailers also yield higher margins and provide exclusive products for the reseller that can not be bought from competitors, resulting in greater store traffic and loyalty. The retail channel stores are eager to set up their store brands (or equivalently, private brand products (Williams, 2000; Choi and Coughlan, 2006)) with mass presentation on shelves to attract customers' attention; they might offer more value-added services to the customers. The retail channels know that shelf space allocation is an issue because it is a limited resource, and it depends on the pricing strategies and quality of private labels (Amrouche and Zaccour, 2007). Retail channels can also integrate their category management and their massive marketing power mix to set up programs that target at customers' shopping preference. Some examples are buy-two-get-one-free promotions, shopping bonuses, direct mail with coupon and members' refunds, etc. From promotional activities, retail channels know that the key factors leading to success are to get private brands established and to get the brands extended (Kolter, 2004).

Many store managers are quite trade-off in the price policy with private brands. By contrast, they always have
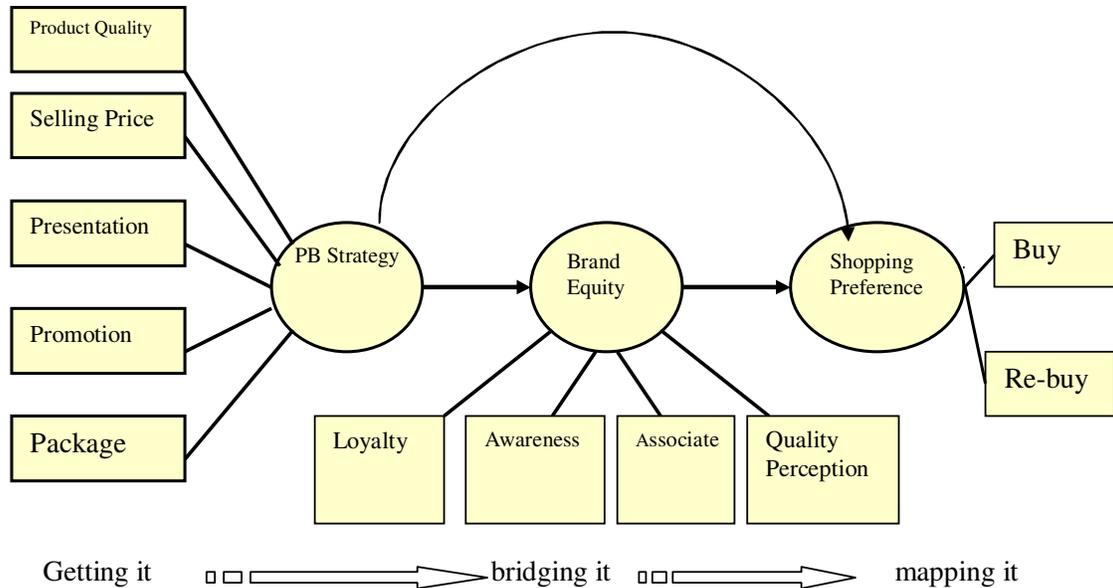
Figure 1. Conceptual frame.

a tendency to position their private brands with the EDLP (everyday low price) strategy (Levy and Weitz, 2001) such as that of Carrefour, or the "Always Low Price" of Wal-Mart. Albeit, somewhat regional retail channels also focus on a lower price strategy in order to cope with giant retail channels.

Keller (2000) developed the brand report card to share ten attributes that pointed out that pricing strategy was based on consumers' perceptions of value and he also mentioned the EDLP strategy in his private brand of "Tide" detergent manufactured by Procter and Gamble. Actually, today's retail channels position their private brands with EDLP to foster favorable associations with consumers awareness of price image and even with their DM, coupon, and member's passports (Costco, Auchuan, Sam's Club, etc.).

Using the brand report card (Keller, 2000), this study obtains the top ten traits of the promotion activities, which include how private brand delivers and meets customers' true desires; the brand makes use of and coordinates a full repertoire of marketing activities to position the private brands. The Carrefour hypermarket, which develops its private brand "Carrefour" with diverse packaging and "own brand" promotion with direct mail for special issues, tried to build a beachhead in channel marketing than competing in the quality arena (Porter, 1985).

Managers of private brands know their brand image totality with different perceptions, beliefs, attitudes and behaviors, and as a result know how to associate their brand with customers' shopping preference. Hence, the hypothesis below:

Hypothesis 1: The private brand strategy of retail channels will have a significant effect on customers'

shopping preferences.

The bridge of brand equity

A brand with strong brand equity is a very valuable asset, and a powerful brand has high brand equity. Brands have higher brand equity to the extent that they have higher brand loyalty, name awareness, perceived quality, strong brand associations and other assets such as patents, trademarks, and channel relationships (Aaker, 1995; Armstrong and Kolter, 2003).

The brand equity between retail channels and custommers can be characterized as a struggle for channel control of the market share. Brand equity provides marketers with a strategic bridge from their past to their future (Keller 2000); that means all the dollars spent each year on marketing cannot be so much thought as expenses, but as investments in what consumers know, feel, recall, believe, and think about the brand. Rust et al. (2004) assumed that the brand equity is the bridge of action-ability to drive the firm into broader expenditure categories that reflect higher-level resource allocation. This study obtains the brand equity as a mediated dimension of a bridge used to explore the private brand in the retail channels, and hence it proposes the following hypothesis:

Hypothesis 2: The retail channels' private brand strategy will have a significant effect on brand equity.

Mapping brand equity and customers' shopping preferences

The brand equity of brand loyalty, name awareness,

brand association, and quality perceptions are used to search and make a method to forecast the competing allocation for retail channels' stores. It is suggested to highlight the optimal strategies of operation to better understand the private brands so that their performance can be maximized. The factors of brand equity (Aaker, 1995; Armstrong and Kolter, 2003) offer the rigor and power for the product brands and the retail channels to develop profound perception of customers' service and to generate operation skill innovation in order for their new private brands development to be valued.

A retail channels' foundation for brand equity requires that consumers have the proper depth and breadth of awareness and strong loyalty, favorable quality perception and unique associations with the brand in their memory. The store managers often want to take shortcuts and bypass more basic branding considerations, such as achieving the necessary level of brand awareness, in favor of concentrating on flashier aspects of brand building related to image (Keller, 2000). Paker and Kim (1997) through brand equity offer quality-equivalent private labels (QEPLs) to determine the competitive advantage of private brands versus national brands. Private brands can increase the collusion in advertising and use lower price to attract customers' attention. In the customers' evaluation stage, the consumers rank brands and form shopping preferences. Generally, the custommers' shopping decision will be to buy the most preferred brand, but two factors can come between the purchase intention and decision (Kolter, 1994). The first factor is a strong intent to purchase the desired brand's products and the second factor is the unexpected situational factor in which customers recommend that their relatives or friends also purchase. (Armstrong and Kolter, 2003) We thus hypothesize:

Hypothesis 3: The brand equity of retail channels' private brand strategy will have a significant influence on customers' shopping preferences.

The mediating effect of brand equity

Retail channels which stress customers' shopping preferences follow brand development with the bridge of brand equity. Authors like Keller (2000) and Rust et al. (2004) suggest using brand equity as a bridge when rating store owns brands. As to brand equity, there has been an increase in customer fragmentation, as smaller and smaller groups of customers demand products and services tailored to their individual needs. Retailers use private brand strategy to respond to customers' demands, and then the customers will reflect this in their shopping preferences more when they make shopping decisions (Grewal et al., 1998, 1999). Hypotheses 2 and 3 link the private brands strategy with brand equity and brand equity with customers' shopping preference. Implicitly, the discussion suggests that the strategy of

private brand determining customers' shopping preferences is mediated by brand equity.

Hypothesis 4: Brand equity will mediate the relationship between the private brand strategy of retail channels and customers' shopping preferences.

METHOD

Samples and data collection

This research employed a face to face questionnaire survey approach to collect data, accompanied by respondents who have previously shopped in channel stores for private brands. All items required seven-point Likert-style responses, ranging from 1 = "extremely disagree", through 4 = "neutral," to 7 = "extremely agree". About 390 valid responses (420 responses, 30 of them incomplete; 92.86% of usable response rate) were obtained from the retail channels of Carrefour, RT-Mart (Auchun), and Taisuco hyper-mart chain stores from March to August 2007. This study offers two cross-category article groups of private brand assortment to respondents, which are household tissue papers and soft drinks. The private brands "Carrefour" of Carrefour, "Fist price" of RT-Mart, and "Tai-sugar" of Taisuco hyper-mart were listed in the questionnaire for respondents to recognize and choose for their preferences. The 390 valid questionnaires were the sample size for quantitative analysis which was acceptable for structural equation modeling analysis (Comrey, 1973). Byrne (1998) comments that thresholds of over 200 samples sizes are needed for the SEM model in order to get stability in the results. Within each case, this research collected the measures of private brand, brand equity, and customers' shopping preferences. A confirmatory factor analysis used to initially test the validity and reliability of the questionnaire measurement items yielded 11 factors with eighteen values greater than 1.0. That accounted for 76.07% of the total variance, and factor 1 (product quality) accounted for 9.04% for the variance (Anderson and Gerbing, 1988). It is notable that the common method bias was unlikely to be a serious problem in the data (Podsakoff and Organ, 1986)

Measures and Definition

The strategy of private brands

Stores having channel cooperation incorporate their supply chain and its massive marketing power mix to create private brand programs for establishing customer shopping preferences. This study measured private brand strategy variables with five dimensions: product quality, selling price, product presentation, promotion activity, and packaging (Blackwell, 1997; Kolter, 2000; Rust et al., 2004; Amrouche and Zaccour, 2007).

Keller (2000) developed the brand report card to identify ten characteristics that the world strongest brands share as a systematic way for managers to think about how to grade their brand performance. This study obtains the ten traits with capability of retailers' private brand and the degree of its compatibility. Brand developments have extended use for a private brand extension and brand image. For store brands, Collins-Dodd and Lindely (2002) developed the multi-item measures of brand image - generalized attitude toward brands was subject to a principal components factor analysis to determine dimensionality. We extracted the multi-items such as products quality, selling price, store shelf space presentation, promotional activities, and packaging leading to customer brand preference to measure the private brands of

Table 1. Items definition for private brand dimensions.

Dimensions		Items and brief definition
Product quality	1.	The product of store private brand product is trustworthy. (Belen del Río et al., 2001)
	2.	The store is concerned about continuously improving the performance qualities of the private brand products. (Belen del Río et al., 2001)
	3.	The quality of the private brand is excellent when you shop. Belen del Río et al., 2001)
	4.	Customers don't think that there are significant differences among different brands in terms of quality. (Batra and Sinha, 2000)
Selling Price	1.	When buying a brand of category, I look for the cheapest private brand available.(Batra and Sinha, 2000)
	2.	Price is the most important factor when I am choosing a private brand of (category).
	3.	The selling price of the private brand is lower. (Grewal, Monroe, and Krishnan, 1998)
	4.	The price of the private brand is more reasonable than that of the national brand.(Dodds et al.,1991; Krishna et al., 2002)
Presentation	1.	You can easy to go shopping for private brand if self spaces have more presentation in the store. (Amrouche and Zaccour, 2007).
	2.	The presentation of private brand is quite important for you (Amrouche and Zaccour, 2007).
	3.	The convenience of private brand shopping environment is important for you (Amrouche and Zaccour, 2007).
Promotion	1.	The promotion activity of private brand is delivery benefit for customers (Grewal et al., 1998).
	2.	The promotion activity of private brand is attractive (Zeithmal, 1998).
	3.	The promotion activity of private brand has good valuable to customers (Zeithmal, 1998).
Package	1.	The package of the private brand is acceptable for customers.
	2.	The private brand offers highly attractive upscale packaging will get your trust and recognition (Blackwell, 1997).
	3.	The written description on the packaging covers all features that are important to how I choose a brand. (Batra and Sinha, 2000)

retailers. Consistent with these dimensions, this research is interested in a strategy of private brands focused toward consumer's shopping preferences which is a cross-category in the channel cooperation of retailers. Table 1 lists items for the private brand dimensions.

Bridging private brand strategy with brand equity

Aaker (1995) revealed that the differentiation strategy to build store brands through brand equity is linked to brand awareness, brand identity, brand loyalty, and perceived quality. In the Cobb-Walgren et al. (1995) study in marketing literature, it was found that categories of brand equity usually fall into two groups: those involving consumers' perceptions (e.g.., awareness, brand associations, perceived quality) and those involving consumers' behavior (e.g., brand loyalty, willingness to pay a higher price) (Keller, 1993). Keller (2000) constructs the top ten traits for managers to grade their brand performance for each of the brand equity characteristics. It offers the idea in an abstract sense, that is, all the dollars spent each year on marketing can be thought of as investments in what consumers know, feel, recall, believe, and think about the brand. This study obtains the brand equity with the above referenced four dimensions: brand awareness, brand associations, perceived quality and brand loyalty (the willingness to pay a higher price) as a physical bridge to measure and develop private brand strategy. Table 2 lists items for the dimensions in brand equity.

Mapping customers' shopping preferences

Brand equity is related positively to shopping preference (Keller,

1998). Sweeney and Soutar (2001) develop a multiple of 19 items scale to measure customers' attitude and behavior. The impact model for private brand to gauge customers shopping preferences is based on the task of getting consumers from the trading area into store and converting these consumers into loyal customers in the most efficient manner as possible. Baker et al. (1992) use a scale where subjects indicated their level of agreement to three statements: that is customers would shop in this store, customers would be willing to buy gifts, and customers will recommend the products to friends or relatives (Robert and Shelby, 1994; Keller, 2000; Bontis and Booker, 2007). This study adopts measurable items that reflect on shopping preference. Table 3 lists items with brief definitions of the dimensions of shopping preference.

RESULTS AND DISCUSSION

Reliability and validity analysis

This research performed confirmatory factor analysis to estimate the reliability and validity of the Likert scale for eleven dimensions in the model. This study measures the reliability of the multiple items for each dimension using both measures of Cronbach's α and composite reliabilities which are above the recommended threshold standard value of 0.6 (Nunnally, 1978; Baker et al., 2002). Table 4 summarizes all measured dimensions. Reliabilities coefficients of Cronbach's α and composite reliabilities are all above 0.70. Descriptive statistics with

Table 2. Items in the brand equity dimensions.

Dimensions		Items and brief definition
Brand awareness	1	Customers are very familiar with the private brand (Aaker, 1995; Cobb-Walgren et al., 1995)
	2	These brands are visually appealing (Cobb-Walgren et al., 1995; Creti and Brodi, 2007).
	3	The brand represents channel cooperation (Aaker, 1995).
	4	Customers are aware of the brand, when they go shopping. (Cobb-Walgren et al., 1995)
Brand association	1	When the brand offers other product categories, customers will buy it. (Cobb-Walgren et al., 1995).
	2	Customers can easily to identify the advantage of the private brand.
	3	Customers can recognize the private brand in the store.
	4	The brand is different from others (Creti and Brodi, 2007).
Perceived	1	The brand tell customer exactly when product quality be performed (Aaker, 1995; Keller, 2000)
quality	2	Consumers do receive the same quality with national brands.
	3	The brand is good enough to respond to customer requests for quality (Creti and Brodi, 2007)
Brand loyalty	1	Customers have a good perception of the value of the merchandise at the stores (Aaker, 1995; Keller, 2000; Creti and Brodi, 2007)
	2	The private brand at the channel store is acceptable.
	3	Customers would consider the merchandise at the channel stores to be a good buy (Keller, 2000).
	4	If the other retailers mark down their private brand prices, I will still buy it from the stores (Keller, 2000; Bontis and Booker, 2007).

Table 3. Items with brief definition in the shopping preference dimensions.

Dimensions		Items and brief definition
Buy	1	The customers are likely to buy private brand products in the store. (Baker et al., 1992; Sweeney and Soutar, 2001; Belen del Río et al., 2001).
	2	The customers are willing to buy private brand products for their friends. (Sweeney and Soutar, 2001; Belen del Río et al., 2001).
Re-buy	1	I frequently to purchase unique commodities from the store (Sweeney and Soutar, 2001; Bontis and Booker, 2007).
	2	I'm willing to purchase a private brand again in the store (Baker et al., 1992; Sweeney and Soutar, 2001; Bontis and Booker, 2007).
	3	I will recommend these products to my friends. (Baker et al., 1992; Sweeney and Soutar, 2001; Belen del Río et al., 2001).

Likert 7-point scales, reliability, and validity are mentioned in Table 4. Following Anderson and Gerbng (1988), this study calculated the composite reliability coefficients for each of the eleven factors, the reliabilities being verified, in that all of the coefficients are greater than the minimal recommended threshold established by Bagozzi and Yi (1988). Additionally, convergent validity was confirmed upon finding the parameters that related the items with the predicted factors that reached a statistically significant level (SteenKamp and Trijp, 1991; Belen del Río et al., 2001). This study assessed convergent validity, using the t-statistics for the path coefficients from the latent constructs to the corres-ponding items. As mentioned above, the path coefficients from the three constructs to the eleven factors are statistically significant, with the highest t-value for the factors measuring private band strategy being 13.896, and the lowest t-value for the factors measuring brand equity being 2.692. All the t-values substantially exceed the standard value of 2.0 that indicates satisfactory convergent validity for all eleven factors (Anderson and Gerbing, 1988). Baker et al. (2002) demonstrated discriminate validity under three conditions. First, the confidence interval for each pair wise correlation estimate (that is ± two standard errors) does not include the value of 1 (Anderson and Gerbing, 1988). This study satisfied

Table 4. Mean, Standard deviation, Correlations and Reliability analysis (N = 390, Likert 7 points scale).

	1	2	3	4	5	6	7	8	9	10	11
Mean	5.07	4.446	5.189	4.612	4.689	5.379	4.689	4.776	5.009	5.489	5.035
Std.	0.872	0.912	1.000	1.137	1.328	0.848	1.328	0.872	0.866	0.864	0.998
Number of items	4	4	3	3	3	4	4	3	4	2	3
Extracted variance	0.756	0.774	0.776	0.835	0.851	0.660	0.658	0.629	0.751	0.889	0.788
Shared variance	0.11	0.11	0.12	0.10	0.09	0.16	0.15	0.21	0.12	0.11	0.21
	0.08	0.06	0.10	0.05	0.05	0.09	0.11	0.15	0.06		
	0.04	0.05	0.05	0.04	0.04	0.08	0.07	0.02	0.05		
	0.02	0.01	0.04	0.02	0.03						
1.Product quality	1.000										
2.Selling Price	0.362	1.000									
3.Presentation	0.668	0.440	1.000								
4.Promotion	0.403	0.389	0.428	1.000							
5.Package	0.272	0.298	0.343	0.764	1.000						
6.Loyalty	0.598	0.328	0.513	0.358	0.260	1.000					
7.Awareness	0.560	0.490	0.492	0.421	0.269	0.624	1.000				
8.Association	0.644	0.418	0.525	0.459	0.371	0.538	0.719	1.000			
9.Quality .Perception	0.765	0.362	0.530	0.393	0.298	0.535	0.570	0.749	1.000		
10.Buy	0.535	0.385	0.545	0.445	0.386	0.549	0.460	0.512	0.527	1.000	
11.Rebuy	0.598	0.462	0.590	0.472	0.390	0.510	0.563	0.589	0.614	0.757	1.000
Cronbach's α	0.891	0.902	0.857	0.901	0.913	0.828	0.823	0.792	0.889	0.876	0.848
Composite reliability	0.891	0.902	0.858	0.901	0.913	0.828	0.826	0.790	0.889	0.876	0.858

Correlations with an absolute value greater than 0.15 are significant at $p < 0.05$, and those greater than 0.20 are significant at $p < 0.01$. (Two-tailed test).

the condition for all pair wise correlations in three measurement models. Second, for each construct, the percentage of variance extracted should exceed the construct shared variance with the other constructs (that is the square of the correlation) (Fornell and Larcker, 1981). Table 4 indicates that the extracted variance for all dimensions also satisfied the conditions and that lowest extracted variance is 0.629 (over the recommended value 0.5) which exceeds its shared variances of 0.137 with brand equity. Finally, this research constrained the correlation for every pair of dimensions, to be equal 1, and a chi-square test was performed to compare this model with the model freeing that correlation. In all 390 cases, the chi-square difference was significant at the $p < 0.001$ level, and that indicates the discriminate validities among all of the dimensions in every construct measurement model.

Path analysis with structural equation modeling

Table 4 displays the mean, standard deviation, number of items, correlation matrix and the reliability of the research variables. To test the hypothesized relationships in the path analysis framework, this study makes use of a structural equation modeling to examine the model fitness and structural model fit through an AMOS analysis (Joreskog and Sorbom, 1986; Hair et al., 1998). It provides Goodness-of-fit measures for the estimated models that access absolute fit measures (chi-square statistic, Goodness-of-fit, root mean square residual), incremental fit measures ((Chi-square(x^2) of the null or independence model, degree of freedom, adjusted goodness-of-fit index(AGFI), normed fit index(NFI)), parsimonious fit measures (comparative fit index(CFI) and an incremental fit index (IFI)). When this research tests the structural equation modeling of private brands for retail channels to shopping preference (Figure 2 and Table 5), the path analysis shows that the private brand strategy for channel retailers has a significant level of path coefficient $\gamma_{11} = 0.154^{**}$; the critical ratio is 3.235, and the t-value is 7.98 (p value = 0.001*) at a significant level. We can conclude that the H1 is marginally supported.

When this research tests the structure equation modeling of private brand to brand equity (Figure 2), we find the path coefficient γ_{21} is 0.54*** at a significant level; the critical ratio is 9.586, and the t-value is 20.202. As hypothesized, a positive relationship between the strategy of private brand and brand equity in retail channels

Table 5. Model goodness-of-fit measures for SEM using the Likert scale.

| Variables	Std. regression weight(λ)	Critical ratio	p-value	Construct reliability	Variance extracted
Exogenous variables (ξ) and observed variables (λx)					
Private brand→ Product quality	0.720	--	---	0.918	0.889
Private brand → Selling price	0.847	17.633	0.000***		
Private brand→ Presentation	0.807	23.818	0.000***		
Private brand→ Promotion	0.939	21.593	0.000***		
Private brand→ Package	0.899	30.000	0.000***		
Endogenous (η) and observed variables (λy)					
Brand equity→ Loyalty	0.765	--	--	0.869	0.768
Brand equity→ Awareness	0.749	15.401	0.000***		
Brand equity→ Association	0.821	14.095	0.000***		
Brand equity→ Quality perception	0.735	14.400	0.000***		
Shopping preference→ Buy	0.896	--	--	0.856	0.852
Shopping preference→ Rebuy	0.930	23.744	0.000***		

**P < 0.05; ***P < 0.01; n = 390.
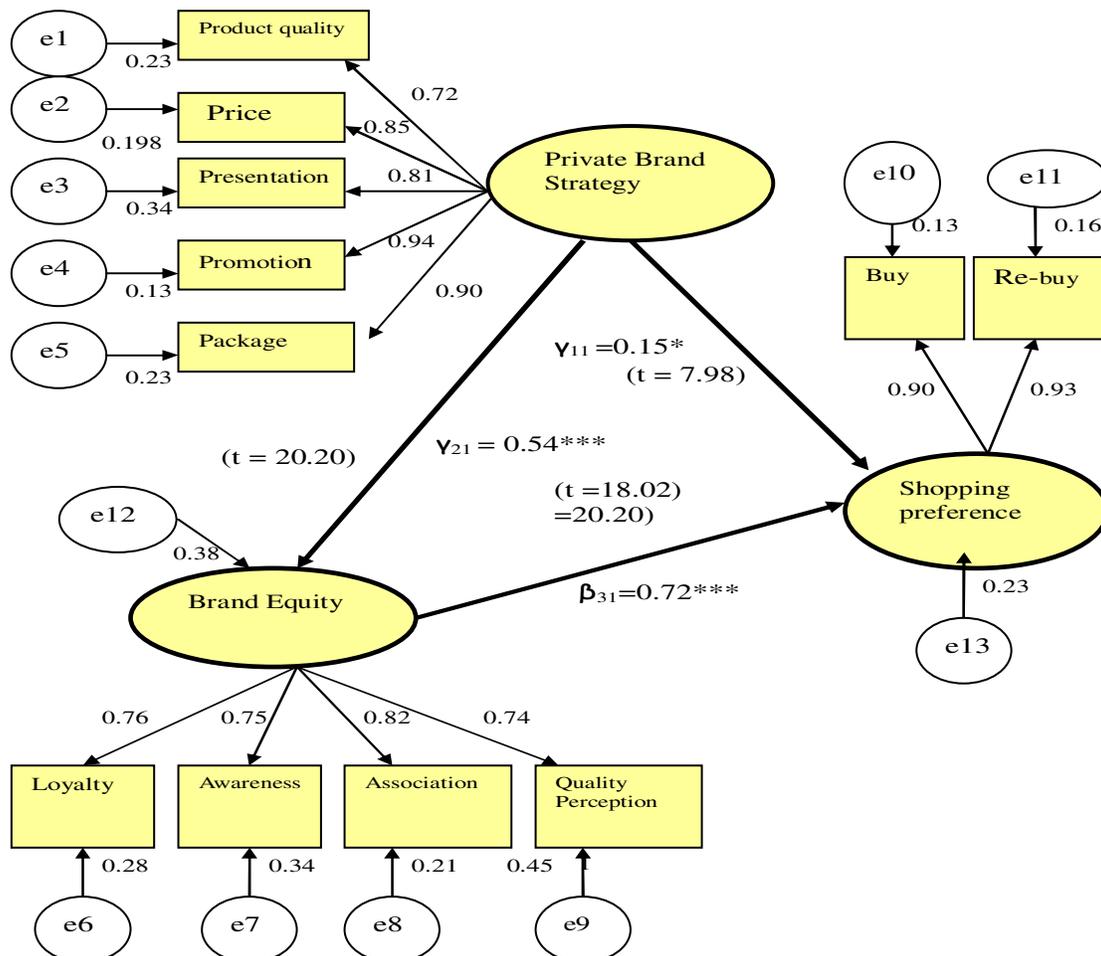
Figure 2. The SEM path of private brand, brand equity, and shopping preference.

channels is confirmed (γ_{21} = 0.54***, t = 20.20). This means that Hypothesis 2 is supported.

As scholars have postulated, the PB brand equity strategy may have a significant influence on customers' shopping preferences. Prior to when customers go shopping, brand equity will influence customers brand preferences and bias customers' purchase decisions. As predicted, a significantly positive influence of brand equity on customers' shopping preferences is demonstrated. The Figure 2 and Table 5 list the results of the standardized regression weight β_{31} = 0.720***; the t-value is 18.024, and the critical ratio is 11.420 at significant enough level to support Hypothesis 3. This finding may add to the understanding that brand equity is indeed necessary and may lead to favorable brand preference, which increases the consumers' shopping preferences toward private brands.

This research examines the mediator of brand equity as it relates to customers' shopping preferences. Sharma (1996) classified the model effects of a mediator construct to further understand the effects of exogenous constructs on endogenous constructs (that is how exogenous constructs affect various endogenous constructs). Baron and Kenny (1986) proposed that the inclusion of mediators attenuates the relationships between the independent and the dependent variables while showing a significant relationship between the mediator and the dependent variable. Bontis and Booker (2007) use a second generation structural equation modeling of partial least square (PLS) with Sobel test (Mackinnon et al., 2002) to verify that the SEM is the method preferred for mediation analysis (Frazier et al., 2004). They pointed out that the mediation exists if the coefficient of the direct path between the independent variable and the dependent variable is reduced when the indirect path via the mediator is introduced into the model. This study reveals significantly that in the model, the total effect of private brand (PB) on shopping preferences (SP is 0.449 (t-value = 7.98**), which includes the direct effect (0.127) and indirect effects (0.322). The total effect of a given construct is the sum of all its direct and indirect effects, and that will attenuate the relationships of private brands to customers' shopping preferences when including the mediator of brand equity (Sharma, 1996; Kline, 1998). The total effect of private brand (PB) on brand equity is 0.399(t-value = 20.202***), with indirect effects of zero. Respectively, the brand equity to customers' shopping preferences of total effects is 0.806 (t-value = 18.024***) without indirect effects. The results display that the relationship between the independent and the dependent variable shows that a private brand strategy has a significantly positive effect with regard to customers' shopping preferences. Under the above mentioned criteria, the significance of the direct effect of private brand upon customers' shopping preferences decreases when this research considers the indirect effect (value is 0.322) of private brand strategy through

brand equity in a total effect model. These results reveal that the brand equity has a significant mediating effect on the relationship between the private brands of retail channels and customers' shopping preferences. Thus, Hypothesis 4 is highly supported.

Model fitness analysis

Tables 5 and 6 display the results of exogenous variables (ξ), variables (λx), endogenous (η) and variables (λy). They display the path coefficients, the critical ratio for regression weight, and the significant level for each dimension and show that the condition for all variance extracted almost exceeds 0.7 (Fornell and Larcker, 1981). The SEM results are listed in Tables 5 and 6. We find that GFI= 0.947 in the Likert 7-points scale. RMR=0.036 is less than 0.05. The NFI (=0.963), IFI (=0.975), and CFI (=0.975) have a goodness-of-fit to the criteria value, 0.9 (Bollen and Stine, 1993). The normed chi-square (χ^2) is measured with computed values (CMIN/DF) which is 2.871, and complies with the criteria and recommended level (Hair et al., 1998; Bollen, 1989; Bollen and Stine, 1993) shown in Table 6. This reveals that the model is a very good fit in the research. The SEM path figures and the results of the model fitness are presented in Tables 5 and 6. This study shows that the Likert 7-point scale has good model fitness by using the structural equation model (SEM); and the models have goodness-of-fit.

CONCLUSION

Theoretical and managerial implications

By fueling private brands (PB) with strategy management in this study, we help the retail channels to develop a good PB strategy management for generating customers' shopping preferences, which is defined by the mediator variable of brand equity. About the constructs of private brands to customers' shopping preferences, we discover that the product quality, selling price, presentation, promotion, and packaging are quite important in strategy execution.

By doing PB strategy in retail channels to the constructs of brand equity and customers' shopping preferences, this study develops a conceptual model to test the mediating role of brand equity on the relationship between PB strategy and the customers' shopping preferences. The results display that the retail channels' PB strategy has a significant effect on customers' shopping preferences; however, if this research involves brand equity as a mediator, the directly positive effect between the PB strategy and customers' shopping preferences will attenuate contemporaneously. This specifically infers that the PB strategy indirectly influences

Table 6. Model goodness of fit measures for SEM by Likert scale.

Variables	Std. regression weights	Critical ratio	t-value (p-value)	Results
Hypothesized relationships: Exogenous variables (ξ) and Endogenous (η)				
H1: Private Brand and Shopping Preference	0.154**	3.235	7.98 (0.001**)	Marginal Supported
H2:Private Brand and Brand Equity	0.542***	9.586	20.202 (0.000***)	Supported
Hypothesized relationships: Endogenous (η) and Endogenous (η)				
H3: Brand Equity and Shopping Preference	0.720***	11.420	18.024 (0.000***)	Supported
H4: Brand Equity as mediator	0.720***>0.154*		0.322*** (Indirect effect)	Supported

Model fit summary			
Model indicators	**Results**	**Criteria**	
X2/df(117.698/41)	2.871	<3	applicable
RMR	0.036	<0.05	applicable
GFI (Goodness-of-Fit Index)	0.947	>0.9	applicable
AGFI(Adjusted Goodness-of-Fit Index)	0.915	>0.9	applicable
CFI (Comparative Fit Index)	0.975	>0.9	applicable
NFI (Normed Fit Index)	0.963	>0.9	applicable
RMSEA	0.069	<0.08	marginal applicable

customers shopping preferences because of the mediator influence of brand equity. Therefore, the brand equity of retail channels' PB serves a mediating role in the PB strategy to generate the customers' shopping preferences.

The PB strategy indicated on the perception map that the product quality, selling price, shelf space presentation, promotion, and products packaging of PB strategy management still influence the retail channel cooperation market, following an examination of standardized regression weights(λx) , critical ratio, and p-value as shown in Table 4. Prior research always argues that a lower price is not a significant factor with regard to private brand, but in this study there was a significant standardized regression weight (0.847) and p-value (0.000***) in the strategy of PB dimensions. All of the five dimensions are significant enough level to affect the construct of the PB strategy.

This study demonstrated that retailers can obtain clearer and transparent knowledge of the formula for the integration of a private brand program in strategy management, especially in the brand preferences of consumers. Retailers should strengthen their private brand image through brand equity from top to bottom in order to improve their service incentives to customers. In this study, the results show that a PB strategy with well formalized factors using a technically proficient brand equity construction affects customer's shopping preferences. On the contrary, if the channel cooperation of retailers has no PB strategy, it is easy for a retail channel store to be a grocery store with no brand strategy.

Mapping the private brand and positioning it

From the point of managerial implications, the implication is that the channel of retailers should direct their PB strategy to product quality, providing the right selling price, dependably and accurately creating the shelf or gondola space presentation, and providing attractive promotional activities and concise packaging which make the customer the centerpiece of all store managers' efforts. This study is in contrast to the conception in marketing channels stating that high PB quality is much more important than lower price (Coughlan et al., 2006). In this model summary results show that the price has the same importance in the PB strategy. Of course, the brand equity is constructed by brand loyalty, brand awareness, brand association, and quality perception as a mediator to bridge the private brand with customers' shopping preferences in the model.

For channel retailers, there is a shortage of measurements of PB strategy. This proposed model displays the SEM method and the level and significance of the accuracy of model fit in the scales (GFI = 0.947, CFI = 0.975). The path analysis and measurements make it obvious that the model indicators of structural equation modeling are very rigorous and powerful. It reveals that channel cooperation of retailers should focus on the strategy management of PB as much as they can. The retailers should focus not only on the facility to imitate, but also should put their decisions about private brands in a position to improve the key elements in brand equity. If retailers offer a better strategy of PB service systems and precise feedback programs, better customer's satisfac-

tion with clear PB shopping preferences will follow. Of course, the greatest benefit will be shown in the store's performance.

The retail channels can focus on the use of PB strategy to have good results and even greater power for the retailer in the channel of distribution. It has changed the innovation and the character of the retailer-customer relationship to have brand products in the market, and creates a retailer store image to mark-up its market share. We might be surprised how many great retailers, like Wal-Mart and Carrefour, open their doors to entrepreneurs and company officials who are interested in bench-marking or learning how their private brands serve retailers. This study offers the key elements to retailers and crossing over the brand equity to influence the customers shopping preferences. For the channel cooperation of retailers, it is not just a question of purchasing power; it is customer service across the board (Blackwell, 1997; Arnold et al., 2009). The leaders of channel retailers should in their minds map the private brand development and value market to service more customers' shopping preferences. With the map in hand, no matter how crude it is, leaders should encode what they see to conform as precisely as possible what is on the map (Mintzberg et al., 2005). The map prefigures the PB strategies perceptions, and the managers see what they expect to see, look for patterns in it, and pay closer attention to it.

That means the retail channels should strategically reinforce their private brand products to attract customers' shopping preferences, and should show care with regard to their quality, the competitiveness of their selling price, their shelf presentation, the credibility of their promotional activities, and the level of animation in their packaging. The results show that the retail channels should take good care of the PB brand equity in the store to satisfy their customers. Otherwise, it is easy to have a problem with PB strategy that leads to unwillingness on the part of customers to buy private brands.

This proposed model displays the rigorous and robust SEM method, and a statistically significant level on the goodness-of-fit model in the Likert scales (GFI = 0.947, CFI = 0.975). It reveals that the private brands of retail channels should focus on a PB strategy and its relationship to brand equity as much as they can. If the retailers offer more complete PB strategy and bridge it with a mediator of brand equity, customers' shopping preferences will follow to show on the store's performance in a positive way. We can formalize the strategic retail channels' power and property by the following: getting PB, bridging PB (Dant and Brown, 2008) and mapping PB. It is important to establish a concept for the integration of PB into the marketplace, to form a vision for the implementation of the concept, and then to map the sustained competitive advantage which results (Mintzberg et al., 2005). Without a vision and a clear map of the process of change, how can retailers follow and expect to advance in the future?

Limitations and further research

Although this study uses the Likert 7-point scale with confirmatory factors analysis method to examine liability and validity, it still could have applied the semantic differential scales or other instruments of the question-naires could have been used to develop a more complete and persuasive argument.

The model shows a rigorous and robust method to explain the PB strategy, and the development of a PB strategy in retail channels to investigate the customers' shopping preference. Future research may develop other functions more widely to observe the PB strategy in a deeper relationship to manufacturers and the interna-tional channels of global retailers.

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