



The effects of advertising spending on brand loyalty in services

Brand loyalty
in services

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Abstract

Purpose – This paper aims to model the effect of advertising spending on brand loyalty by examining the simultaneous effects of advertising spending, store image, perceived quality and satisfaction on brand loyalty.

Design/methodology/approach – A proposed model is compared with three competing models of the relationships amongst, and impact of, independent variables on brand loyalty. Data from the banking and discount store services in South Korea are used to examine the indirect effects of customer perceptions of advertising spending on brand loyalty.

Findings – Results elucidate the complexity of advertising spending effects on brand loyalty, with mediating roles played by store image, perceived quality and satisfaction. Significant results obtained in both banking and retail services differing in firm-customer relationships suggest that the findings are robust.

Research limitations/implications – Future research might test the proposed research model in other cultures and conduct cross-cultural comparisons. Other variables such as brand associations, brand trust, advertising recall might uncover additional cognitive and attitudinal structural relationships with brand loyalty.

Originality/value – The paper compares competing models of the variables of interest, which has not been done before, and indeed seen quite infrequently in scholarly research in marketing. Unlike in previous studies, this paper examines the simultaneous relationships and the mediating roles of store image, perceived quality and satisfaction in the impact of perceptions of advertising intensity on brand loyalty.

Keywords Services, Advertising, Customer satisfaction, Brand loyalty, Cost effectiveness

Paper type Research paper

Introduction

Brand loyalty has been conceptualized as a consumer-based construct that is determined both by behavioral response and psychological perception in the current time period, as well as in prior time periods (Dick and Basu, 1994). A review of the literature reveals that there may be two quite distinct approaches to investigating brand loyalty. One appears to estimate the direct role of various determinants on brand



loyalty. For example, Yoo *et al.* (2000) examined the impact of the marketing mix variables on brand loyalty. The other approach focuses on the indirect effect of these determinants on brand loyalty. Since advertising spending affects expectations of product or service quality (Kirmani and Wright, 1989; Moorthy and Zhao, 2000; Yoo *et al.*, 2000), its role should be indirectly linked to brand loyalty suggesting that rather than the advertisement itself, it is how advertising affects customer perception of the firm that is more critical in shaping brand loyalty. This approach raises such issues as, for example: how does the customer view the firm's advertising; are there other indirect effects of advertising on brand loyalty that may have been overlooked? If advertising spending is related to consumer perceptions of product or service quality and if satisfaction is inextricably linked with brand loyalty, then how does the entire set of these variables relate to each other. There appear to be no studies that have investigated the relative and combined influence of these variables on brand loyalty in service environments. Further, in specific service settings such as in retail or banking services, how does the store image relate to these variables? Although many other possible influences of brand loyalty (e.g. brand trust and internal brand management issues) are useful, to our knowledge, there are no studies on the simultaneous comparisons of the relative influence of the store image, perceived quality and satisfaction constructs in the effect of the intensity of advertising on brand loyalty in such services.

With the proliferation of advertising choices and the splintering of audiences across multiple new media options generated by the internet in addition to traditional media, firms are hard-pressed to determine the most effective and efficient allocation of advertising monies. An understanding of the role of store image, perceived quality and satisfaction in the indirect effects of advertising on brand loyalty will help managers grasp the true impact of advertising in development of brand loyalty. This paper attempts to provide a more complete view (than previously established) of the role of advertising spending in building loyalty by simultaneously including the combined role of customer perceptions of the firm's advertising with store image quality and customer satisfaction with the firm and its offerings. Thus, this study empirically evaluates the following construct relationships:

- The direct and indirect effects of the impact of advertising spending on brand loyalty.
- The direct effects of store image, perceived quality and satisfaction on brand loyalty.
- The mediating roles of store image, perceived quality and satisfaction in the impact of advertising spending on brand loyalty.

We begin with a literature review to define constructs and establish support for the links between them. Next, four models are presented that depict the alternative views of the simultaneous linking of these variables with direct and indirect effects on brand loyalty. We then present our study where these models are tested to establish causality amongst the variables and we select the one with the best fit. Finally, the implications of the study for managers and scholars are discussed.

Conceptual foundation

Agrawal (1996) suggests that advertising can be seen as a “defensive” strategy used to build brand loyalty, which helps in retaining the loyal consumers, and price promotions as an “offensive” strategy used to attract the loyal consumers away from the rival brand. The stronger brand invests less in advertising than the weaker brand because it faces little threat from the weaker brand. Instead it spends more on promotions (provided advertising is cost effective) to attract away the weaker brand’s loyal consumers. The weaker brand, on the other hand, finds it optimal to defend its loyal franchise by spending more on advertising, as promotions do not help much due to the difficulty in attracting away the stronger brand’s loyal consumers. Regardless, advertising spending is necessary for protecting a firm’s loyal customers from rival brands. The difference is that the stronger brand spends less than the weaker brand on advertising. Can we better understand the complex effects of advertising on brand loyalty by looking at the indirect effects of a customer’s perception of advertising spending on brand loyalty? How does advertising spending for example affect store image or customer perceptions of quality or the level of customer satisfaction?

Advertising spending

Considerable research focuses on advertising as an antecedent of brand loyalty (Agrawal, 1996; Yoo *et al.*, 2000). Advertising spending is not only a signaling device but also an informational device (Moorthy and Zhao, 2000). Advertising has an important effect in reinforcing perceived performance and usage experience of a particular brand (Kirmani and Wright, 1989; Moorthy and Hawkins, 2005). Since we are focused on the customer perspective we follow Kirmani and Wright’s (1989) use of a proxy perceptual measure of advertising spending and adapt Yoo *et al.*’s (2000) conceptualization to define advertising spending as: consumer perceptions on advertising spending as measured by their perceptions of advertising frequency and expenditure.

Perceived quality

Scholars view perceived quality as personal and subjective (Anderson and Sullivan, 1993; Chen, 2001; Olsen, 2002). We use Oliver’s (1999) definition of perceived quality as a global consumer judgment of the superiority of the product or service integrating consumer expectations and perceptions. Favorable customer service perceptions lead to improved satisfaction (Anderson and Sullivan, 1993; Fornell *et al.*, 1996; Olsen, 2002). As Oliver (1999) suggests, perceived quality is cognitive and precedes overall satisfaction, which is an affective response. The question is: what is the role of perceived quality and satisfaction in the effect of advertising spending on brand loyalty.

Store image

Scholars have studied the store image construct for over three decades (Wheatley and Chiu, 1977; Bloemer and Ruyter, 1998). Store image develops from subjective perceptions formed over time (Bloemer *et al.*, 1998) and, generally seems to involve the perceptions and beliefs about a particular store. Bloemer and Ruyter (1998, p. 501) define the construct as “a consumer’s perceptions of a store on different attributes associated with the store, which are both independent and interdependent in

consumer's memory learned from current and previous exposure to stimuli." Based on Stern *et al.*'s (1977) conceptualization, we define store image as a consumer's overall perceptions of a store based on his/her current and previous exposure to stimuli. A favorable overall impression of a store, is seen as essential to attracting customers (Stern *et al.*, 1977; Bloemer and Ruyter, 1998; Bloemer *et al.*, 1998). Bloemer and Ruyter (1998) found significant relationships between store image, satisfaction, and loyalty. A favorable store image may be significantly related to perceived quality and advertising spending (Miller and Berry, 1998). The question is: how are these variables related to each other in the effect of advertising spending on brand loyalty.

Customer satisfaction and brand loyalty

Over the years, numerous definitions of satisfaction have been used in the marketing discipline. Giese and Cote (2000, p. 15) conclude that the wide variation in defining the construct of satisfaction is best reconciled in their definition of satisfaction as "a summary affective response of varying intensity with a time-specific point of determination and limited duration directed toward focal points of product acquisition and/consumption." We conceptualize satisfaction as a customer's overall evaluation of a product or service in terms of whether that product or service has met their needs and expectations.

Generally, brand loyalty is defined as "a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior" (Oliver, 1999, p. 34). While there may be a distinction in loyalty measures between attitudinal loyalty and behavioral loyalty, Olsen (2002) points out that loyalty is commonly assessed by behavioral measures rather than attitudinal measures. Based on this reasoning, we define brand loyalty as a behavioral response expressed by a composite measure with respect to a preferred product or service in the future. The question is what role does satisfaction play in the effect of advertising spending when the roles of store image and perceptions of quality are also simultaneously considered.

Please see Table I for an overview of the numerous studies that have endeavored to model the links between perceived quality, satisfaction, and loyalty, particularly into the specification of the "antecedent, mediating, and consequent" relationships (e.g. Bloemer *et al.*, 1998; Tepeci, 1999; Chen, 2001; Olsen, 2002). Even though the relationships between some of these variables have been individually examined (e.g., Miller and Berry (1998) on the advertising spending – store image link and Stern *et al.* (1977) on the store image – brand loyalty link), this study provides an added contribution by looking at the combined and imultaneous relationships between advertising spending, store image, perceived quality, satisfaction, and brand loyalty. A closer evaluation of Table I reveals little uniformity concerning the five variables, or combinations therein, that directly affect consequence measures. Next, we construct alternative models based on the established links from prior research.

Four models explaining the development of brand loyalty

This study tests alternative models with advertising spending playing an initiating role in the development of brand loyalty. Alternative explanations are utilized in each model for the relationships amongst advertising spending, store image, perceived

Author	Main relationships	Key findings
Wheatley and Chiu (1977)	SI → PQ	Price information and the image of a store are used as cues to the quality of a product
Stern <i>et al.</i> (1977)	SI → BL	Customers patronize stores whose characteristics are congruent with their self-concept
Johnson (1984)	AD → BL	Advertising spending has no direct effect on brand loyalty, but still plays a role in maintaining customer brand loyalty
Sirgy and Samli (1985)	SI → BL	Store image play a significant role in the development of brand loyalty
Kirmani and Wright (1989)	AD → PQ	Awareness of advertising influences quality expectations
Anderson and Sullivan (1993)	PQ → SA	Satisfaction is best specified as a function of perceived quality
Bloemer and Kasper (1995)	SA → BL	Positive relationship between manifest satisfaction and true brand loyalty
Agrawal (1996)	AD → BL	Advertising directly affects brand loyalty. Stronger brand loyalty requires more advertising spending under competitive conditions
Fornell <i>et al.</i> (1996)	PQ → SA	Customer satisfaction is more quality-driven than value- or price-driven
Bloemer and Ruyter (1998)	SI → SA → BL	The effect of store image on brand loyalty is mediated by satisfaction
Bloemer <i>et al.</i> (1998)	SI → PQ → SA → BL	Store image is indirectly related to brand loyalty via perceived quality and via satisfaction
Miller and Berry (1998)	AD → SI	Advertising spending is related to store image
Tepeci (1999)	PQ → BL SA → BL	Both satisfaction and perceived quality are key determinants to creating brand loyalty
Oliver (1999)	SA → BL	Brand loyalty is directly influenced by satisfaction
Moorthy and Zhao (2000)	AD → PQ	Advertising spending and perceived quality are positively correlated even after accounting for objective quality and price
Giese and Cote (2000)	PQ → SA	Satisfaction is related to customer expectations and perceived quality
Yoo <i>et al.</i> (2000)	AD → PQ AD → BL SI → PQ	High advertising spending and store image is related to high brand equity (loyalty and quality)
Ragunathan and Irwin (2001)	PQ → SA	Consumer happiness (e.g. pleasantness and satisfaction) is influenced by past judgments. For example, if previous product experiences (or quality) are pleasurable, the next product experience needs to be even better in order to induce the same level of satisfaction
Chen (2001)	PQ → SA → BL	Perceived quality affects user satisfaction, which results in brand loyalty. In particular, perceived quality is one kind of brand association because the concept of brand knowledge is focused on the association network.
Olsen (2002)	PQ → SA → BL	The relationship between perceived quality, satisfaction, and loyalty is stronger when they are framed as comparative evaluations
Moorthy and Hawkins (2005)	AD → PQ	Subjects respond more to advertising repetition – in the sense of changing their perceived quality judgments – when they are actually exposed to advertising than when the advertising frequency data are provided to them as an abstract number

Table I.
Summary of research
relevant to brand loyalty
process

quality, satisfaction and loyalty. Cronin *et al.* (2000) observed that the model structure being tested appears highly dependent on the nature of the study, supporting the approach of the testing of alternate and competing models in depicting simultaneous relationships among several variables in a phenomenon. We utilize hierarchical structural model analysis to investigate models representing a large number of different structures obtained by slightly modified model specifications (see Schweizer *et al.*, 2003). By structuring such alternative models, McKenzie (1998) argues that researchers may be better able to judge how the evidence relates to each alternative view. The use of competing models, as in this study, allows for data interpretation, understanding developmental processes, and formulating new research questions (e.g. Ferrer and McArdle, 2003).

Direct effects model (DEM)

To provide a base comparison, we begin with the direct effects of advertising spending, store image, perceived quality, and satisfaction, on brand loyalty. Thus, the first model allows one-way direct effects for the independent constructs on the dependent construct – brand loyalty, and is termed the direct effects model (DEM). For the theoretical justification, such linkages as the advertising spending-loyalty (Agrawal, 1996; Yoo *et al.*, 2000), store image-loyalty (Corstjens and Lal, 2000; Gommans *et al.*, 2001; Yoo *et al.*, 2000), perceived quality-loyalty (Bloemer *et al.*, 1998; Olsen, 2002; Fornell *et al.*, 1996; Tepeci, 1999), and satisfaction-loyalty (Bloemer and Ruyter, 1998; Chen, 2001; Olsen, 2002) are supported extensively in prior literature.

Simple mediation model (SMM)

The simple mediation model (SMM) is the second model with an alternate view that changes the effect of advertising spending on brand loyalty through perceived quality as mediator. The role of perceived quality as a mediator has also been shown by Bloemer *et al.* (1998). Yoo *et al.*'s (2000) study suggests that the initial evaluation of advertising spending leads to consumers' judgments that, in turn, drive behavioral loyalty. In this simple mediation model, the advertising spending → perceived quality → loyalty linkage represents the indirect effect of advertising spending as one of the general class of "exclusive cues" (Yoo *et al.*, 2000) that would enhance or diminish the impact of message exposure and frequency.

Real mediation model (RMM)

The third alternate view embodied in the real mediation model (RMM) is built from the literature that investigates the relationships between perceived quality, satisfaction, and brand loyalty. While the majority of studies indicate that perceived quality influences loyalty through satisfaction (e.g. Anderson and Sullivan, 1993; Chen, 2001; Olsen, 2002; Roest and Pieters, 1997), there are those who have argued for its direct effect (e.g. Tepeci, 1999; Zeithaml *et al.*, 1996). A high level of perceived quality in the creation of brand loyalty is positively associated with customer satisfaction when advertising spending is directly linked to quality perceptions (e.g. Johnson, 1984). In addition to what we observed in the previous model, there is conceptual and empirical evidence in support of both the advertising spending → perceived quality → satisfaction (e.g. Giese and Cote, 2000; Moorthy and Hawkins, 2005) and the advertising spending → store image → brand loyalty (Gable *et al.*, 2000; Miller and

Berry, 1998) linkages. Thus, in this third model, there are additional mediating effects for store image, perceived quality and satisfaction in the effect of advertising spending on brand loyalty.

Proposed research model (PRM)

Cronin *et al.* (2000, p. 198) have also suggested that “in order for a more pragmatic picture of the underlying relationships that exist among these variables to emerge, an investigation of a more collective model is needed in a comparison of competing models.” In addition to the mediating role of store image in the effect of advertising spending on brand loyalty from RMM, the PRM adds a second mediating role for perceived quality in the effect of store image on brand loyalty. Both the store image → perceived quality → satisfaction → brand loyalty (Bloemer *et al.*, 1998) and advertising spending → store image (Gable *et al.*, 2000; Miller and Berry, 1998) links are also supported by the literature. Thus, the role of advertising spending in developing brand loyalty is comprehensively specified in this proposed model allowing for the testing of multiple mediating roles of store image, perceived quality, and satisfaction, while simultaneously allowing its own direct effect on brand loyalty as well. We expect that this comprehensive model for the effects of advertising spending on brand loyalty will obtain the best fit. When considered simultaneously in this comprehensive model, we expect the following two fundamental structural relationships:

- (1) Advertising spending has a direct effect on brand loyalty.
- (2) Advertising spending has an indirect effect on brand loyalty with store image, perceived quality and satisfaction playing mediating roles.

Specifically, we hypothesize the following pairwise links in the proposed research model:

- H1. Advertising spending has a direct positive impact on brand loyalty.
- H2. Advertising spending has a direct positive impact on store image.
- H3. Advertising spending has a direct positive impact on perceived quality.
- H4. Store image has a direct positive impact on brand loyalty.
- H5. Store image has a direct positive impact on perceived quality.
- H6. Perceived quality has a direct positive impact on brand loyalty.
- H7. Perceived quality has a direct positive impact on satisfaction.
- H8. Satisfaction has a direct positive impact on brand loyalty.

Methodology

Here, we first describe the development of our scales and the data collection procedure. Next, we discuss the (AMOS 6.0) confirmatory factor analysis to first establish the validity of the constructs, the structural equation modeling to compare the proposed and rival models.

Scale development

The five constructs were measured by 13 questions using a five-point Likert scale adapted from previously published studies (see Table II) with sufficient reliability estimates (see Appendices 1 and 2) as follows: advertising spending (Bank: $\alpha = 0.72$; discount store: $\alpha = 0.69$), with two items adapted from Kirmani and Wright (1989) and Yoo *et al.* (2000); perceived quality (Bank: $\alpha = 0.79$; discount store: $\alpha = 0.77$), with three items adapted from Yoo *et al.* (2000); store image (Bank: $\alpha = 0.75$; discount store: $\alpha = 0.81$), with three items adapted from Stern *et al.* (1977); satisfaction (Bank: $\alpha = 0.78$; discount store: $\alpha = 0.79$), with two items adapted from Ragunathan and Irwin (2001); and, brand loyalty (Bank: $\alpha = 0.79$; discount store: $\alpha = 0.79$) with three items adapted from Sirgy and Samli (1985). A back translation method was used to

Variables	Bank (loadings)	Discount store (loadings)
<i>Advertising spending</i>		
The ad campaigns for X are frequently seen	0.68	0.58
The ad campaigns for X seem very expensive, compared to campaigns for competing brands	0.61	0.47
Composite reliability	0.82	0.85
Average variance extracted	0.61	0.67
<i>Perceived quality</i>		
The brand is of high quality	0.73	0.71
The likelihood that X is reliable is very high	0.81	0.74
The likely quality of X is extremely high	0.69	0.72
Composite reliability	0.76	0.81
Average variance extracted	0.53	0.60
<i>Store image</i>		
I have a favorable attitude to this brand.	0.67	0.68
I trust the brand's image.	0.71	0.80
The brand has an overall goodwill with me.	0.74	0.81
Composite reliability	0.84	0.81
Average variance extracted	0.64	0.58
<i>Satisfaction</i>		
Overall, I am satisfied with specific experiences with the brand	0.85	0.73
I am satisfied with my decision to purchase from this brand	0.76	0.89
Composite reliability	0.89	0.83
Average variance extracted	0.72	0.62
<i>Brand loyalty</i>		
I say positive things about this brand to other people	0.77	0.69
I would continue to do business with this brand retailer even if its prices increase somewhat	0.66	0.69
I will not buy at other brands if X is available	0.81	0.82
Composite reliability	0.75	0.81
Average variance extracted	0.51	0.60

Notes: Bank: $\chi^2 = 171.811$; $df = 67$; RMR = 0.045; GFI = 0.914; IFI = 0.919; CFI = 0.917; TLI = 0.888; AGFI = 0.864; RMSEA = 0.078. Discount store: $\chi^2 = 113.726$; $df = 67$; RMR = 0.037; GFI = 0.940; IFI = 0.960; CFI = 0.959; TLI = 0.945; AGFI = 0.907; RMSEA = 0.053

Table II.
Results of the CFA
analysis (factor loadings)

develop Korean versions of the original scales. The original scales were translated into Korean language by three bilinguals in Korean and English. After initial drafts were developed, a careful review process was conducted to verify clarity and comprehensibility of the content. Subsequently, a refined Korean questionnaire was developed.

The variance inflation factor (VIF) and tolerance results of the test for multicollinearity shown in Appendices 1 and 2 indicate inconsequential collinearity. No VIF exceeds 10.0 and the tolerance values show that collinearity does not explain more than 10 percent of any independent variable's variance.

Data collection

We collected data in two different service industries, financial services (five banks) and the retail services (four discount stores), from customers who purchased their products and services in metropolitan areas of South Korea. These services were chosen because customers in these types of services have direct contact with firms. The characteristics of the services in this study cover a wide range of variations on taxonomic dimensions proposed by Bowen (1990). Specifically, banking services are directed at intangible assets, delivered on a continuing basis, and involve superficial member relationships (Lee and Cunningham, 2001). Local discount stores, on the other hand, attempt to enhance customers' perceptions by offering a wide range of benefits and engaging in face-to-face relationships that foster enhanced customer loyalty. Self-administered surveys were distributed to 300 randomly-selected existing customers from each of the two selected industries. Participants were required to have a minimum of two years experience shopping at discount stores; and, with at least ten purchases during that period and a minimum of two years of transactions with the banks. After accounting for sample bias and missing data, we had a total of 508 usable questionnaires (247 for discount stores and 261 for banks).

Respondents who were not willing to participate in the self-administered survey were asked to answer an abbreviated telephone survey to test for non-response bias. No significant differences between respondents and non-respondents regarding characteristics and attitudes were discovered (*t*-test; $p = 0.01$).

Confirmatory factor analysis

We conducted the confirmatory factor analysis (CFA) rather than the exploratory factor analysis (EFA) to test our data since we used established measurement scales. (Kelloway, 1995; Hurley *et al.*, 1997).

The CFA model provided good fit to the data. While the chi-square statistic was significant in both sub-samples ($p < 0.01$), it is known to be highly sensitive to sample size (Jöreskog, 1993). The CFI estimates were 0.917 (sample 1: bank) and 0.959 (sample 2: discount store) respectively, and the RMSEA estimates were 0.078 and 0.053. Composite reliability was calculated using the procedures outlined by Fornell and Larcker (1981). The parameter estimates and the average variance extracted for each construct were computed (Anderson and Gerbing, 1988; Bagozzi and Yi, 1988). The composite reliabilities for the five constructs ranged from 0.76 to 0.89 in sample 1 and from 0.81 to 0.85 in sample 2. The factor loadings ranged from 0.61 to 0.85 (sample 1, $p < 0.01$) and 0.47 to 0.86 (sample 2, $p < 0.01$). CFA revealed that all items significantly loaded on the respective constructs ($p < 0.05$), suggesting acceptable

convergent validity for the measures. The average variance extracted ranged from 0.51 to 0.72 (sample 1) and 0.58 to 0.67 (sample 2).

Discriminant validity was assessed by calculating the shared variance between pairs of constructs and verifying that it was lower than the average variances extracted for the individual constructs (Fornell and Larcker, 1981). In all cases, the average variances extracted were higher than 50 percent (ranging from 51 percent to 72 percent; see Table II). The shared variances between pairs of all possible scale combinations indicated that the variances extracted were higher than the associated shared variance in all cases. On the basis of these criteria, we concluded that the measures in the study exhibited sufficient evidence of both convergent and discriminant validity.

Results

The fit indices for the alternative models within each sample are summarized in Table III. The direct effects model (DEM) provides a poor fit in both samples: sample 1 $\chi^2(73, n = 261) = 250.786, p < 0.01, \rho = 0.82$; sample 2 $\chi^2(73, n = 247) = 244.255, p < 0.01, \rho = 0.82$.

Given that the degrees of freedom is the same as with DEM, the simple mediation model (SMM) also provides a poor fit in both samples: sample 1 $\chi^2(73, n = 261) = 239.942, p < 0.01, \rho = 0.84$; sample 2 $\chi^2(73, n = 247) = 237.647, p < 0.01, \rho = 0.82$. Thus, both DEM and SMM were unsatisfactory in representing the underlying brand loyalty development process. This conclusion is further supported by the much improved fit in the real mediation model (RMM) as shown by the decrease in chi-square: sample 1 $\Delta\chi^2(2, n = 261) = 27.118 [239.942 - 212.824 = 27.118]$ vs SMM; sample 2 $\Delta\chi^2(2, n = 247) = 46.106 [237.647 - 191.541 = 46.106]$ vs SMM; $p < 0.01$.

Support for the proposed research model (PRM) comes from comparisons between the RMM and the PRM. The importance of the comprehensive direct and indirect effects of advertising spending on brand loyalty is confirmed by the improved fit going from RMM to PRM: sample 1 $\Delta\chi^2(1, n = 261) = 27.610 [212.824 - 185.214 = 27.610]$,

Competing models	χ^2	df	ρ	Model compared	$\Delta\chi^2$
<i>Sample 1 (n = 261, Bank)</i>					
1. Null model	1359.457	91	N/S	N/S	-
2. Direct effects model	250.786	73	0.82	N/S	-
3. Simple mediation model	239.942	73	0.84	2 vs 3	10.844
4. Real mediation model	212.824	71	0.86	3 vs 4	27.118
5. Proposed research model	185.214	69	0.88	4 vs 5	27.610
6. Measurement model	171.811	67	0.89	5 vs 6	13.403
<i>Sample 2 (n = 247, Discount store)</i>					
1. Null model	1243.769	91	N/S	N/S	-
2. Direct effects model	244.255	73	0.82	N/S	-
3. Simple mediation model	237.647	73	0.82	2 vs 3	6.608
4. Real mediation model	191.541	71	0.87	3 vs 4	46.106
5. Proposed research model	121.894	69	0.94	4 vs 5	69.647
6. Measurement model	113.726	67	0.95	5 vs 6	8.164

Table III.
Model fit indexes for each sample

and sample 2 $\Delta\chi^2(1, n = 247) = 69.647$ [$191.541 - 121.894 = 69.647$], $p < 0.001$. In both samples, therefore, the proposed research model (PRM) provided a substantially better fit than either of the other (SMM and RMM) mediation models. The substantial decrease in chi-square associated with the move from RMM to PRM indicates that additional paths play a critical role in improving model explanations. Further, for the proposed research model, other fit indexes such as CFI and RMSEA were 0.917 and 0.080 for Sample 1 and 0.959 and 0.053 for Sample 2.

Although the fit indices for the proposed research model in both samples were good, a comparison with the measurement model is useful for evaluating whether the proposed research model is significant. In sample 1 the difference between PRM and measurement model was: $\Delta\chi^2(2, n = 261) = 13.403$ [$185.214 - 171.811 = 13.403$]; $p < 0.005$, and in sample 2 it was: $\Delta\chi^2(2, n = 247) = 8.168$ [$121.894 - 113.726 = 8.168$]; $p < 0.05$. The critical value of a chi-square difference for 3 degrees of freedom at $p = 0.05$ is 7.81. In addition, the rho values for PRM were 0.88 in sample 1 and 0.94 in sample 2, indicating an adequate level of fit. The chi-square difference between all four of these models is significant, indicating that the PRM fits the data significantly better than the RMM, SMM, and DEM. Maximum likelihood estimates for the structural parameters are reported in Table IV. All paths proposed in the PRM were significant in both industries ($p < 0.05$), except the direct link between advertising spending and brand loyalty in both samples.

As the alternative models are not nested within the PRM, the Akaike's Information Criterion (AIC) is appropriate for model comparison (Tabachnick and Fidell, 1999). Keeping in mind that smaller values of AIC indicate a better fit of the model, the proposed research model (PRM) in both industries is the best model (see Table IV and Figure 1).

Since the direct effect of advertising spending on brand loyalty is not significant in both samples (see Table IV), it becomes critical to examine the indirect effects of advertising spending for a complete understanding of how it indirectly translates into enhanced brand loyalty. This conclusion appears robust because it is confirmed in both the bank and discount store industries and is previously supported by Chiou and Droge (2006).

We estimated the indirect effect based on Tabachnick and Fidell's (1999) guideline. An indirect effect is the effect of one variable on another that is mediated by at least one other variable in a model. For all the alternative models we tested, there is an indirect effect of advertising spending on brand loyalty in both the banking and discount store industries. Please see Table V for the standardized coefficients of all the indirect effects in both samples for the proposed research model (PRM).

Discussion

This study advances the literature related to the effects of advertising spending on brand loyalty. While prior research has looked into the effects of advertising spending on brand loyalty (e.g. Tellis, 1988), the added contribution of this study beyond previously established insights stems from the simultaneous modeling of a variety of mediating influences that can better help explain the effect of advertising spending on brand loyalty. This study shows that even though advertising spending does not directly influence brand loyalty, it indirectly affects brand loyalty via positively enhancing store image and perceived quality. This contribution to extant research can

Table IV.
Bank and discount store
sample structural
estimates

Direct effects model		Simple mediation model		Real mediation model		Proposed research model	
Paths	Estimates	Paths	Estimates	Paths	Estimates	Paths	Estimates
<i>Bank estimates</i>							
AD → BL	0.121*	AD → PQ	0.302	AD → PQ	0.345	AD → PQ	0.152*
SI → BL	0.442	SI → BL	0.415	SI → BL	0.374	SI → BL	0.339
PQ → BL	0.526	PQ → BL	0.505	PQ → SA	0.180*	PQ → SA	0.201**
SA → BL	0.420	SA → BL	0.438	SA → BL	0.408	SA → BL	0.382
				PQ → BL	0.461	PQ → BL	0.431
				AD → SI	0.386	AD → SI	0.347
ACI	448.26		456.72		368.34		364.47
							0.429
							0.095(N/S)
<i>Discount store estimates</i>							
AD → BL	N/S	AD → PQ	0.220	AD → PQ	0.298	AD → PQ	0.156*
SI → BL	0.501	SI → BL	0.506	SI → BL	0.495	SI → BL	0.485
PQ → BL	0.218	PQ → BL	0.221**	PQ → SA	0.359	PQ → SA	0.384
SA → BL	0.300	SA → BL	0.299	SA → BL	0.288	SA → BL	0.274
				PQ → BL	0.188*	PQ → BL	0.120*
				AD → SI	0.415	AD → SI	0.361
ACI	352.68		341.02		311.81		0.704
							0.069(N/S)
							298.57

Notes: * $p < 0.05$; ** $p < 0.01$; all other estimates are significant at $p < 0.001$

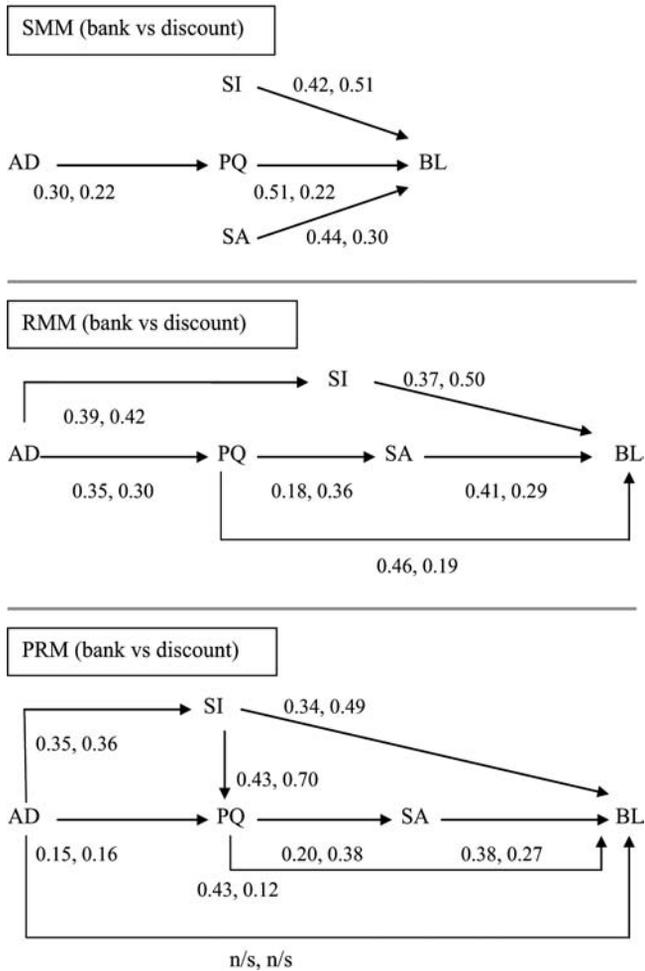


Figure 1.
Structural path estimates
for models

	Bank	Discount store
<i>PRM standardized estimates</i>		
AD → SI → BL	0.118	0.162
AD → PQ → BL	0.066	0.019
AD → PQ → SA → BL	0.012	0.016
AD → SI → PQ → BL	0.064	0.030
AD → SI → PQ → SA → BL	0.011	0.027

Notes: All mediating roles in the PRM model were significant at $p < 0.05$

Table V.
Indirect effects of
advertising spending

also be considered quite robust since the results were replicated across two different industry contexts (banking and discount store) and the research model explained a substantial proportion of the variance in both samples. Next, we provide an overview of the major results and highlight their managerial implications.

The structural relationships of the proposed research model

The proposed research model specified and tested two groups of relationships related to the antecedent effects of advertising spending:

- (1) direct effects on store image and perceived quality;
- (2) indirect effects on brand loyalty through store image and perceived quality; and
- (3) direct effects of satisfaction on brand loyalty.

Results show that in addition to advertising's direct positive effects on store image and perceived quality, it also has significant positive effect on brand loyalty through store image and perceived quality. Satisfaction is a common mediator in all cases. These effects emerged both in the banking and discount store contexts and the inter-relationships between the tested constructs were proven to be robust since the proposed research model fit both data sets much better than the three competing models (the DEM, SMM, and RMM).

In contrasting the two sectors, the discount stores generally had higher path coefficients than the banks. For example, the effect of store image on perceived quality seemed to have been very much higher for the discount store (0.70) as compared to the bank (0.43). The same was also observed for store image to brand loyalty, and perceived quality to satisfaction. The extent of advertising's contribution to the visibility of diverse settings, dynamism and exposure in the discount stores could have contributed to their higher scores. However, a bank's larger service orientation and less tangibility of products could have contributed to their lesser importance in conversion from advertising to store image, perceived quality to brand loyalty. Would this also suggest that advertising has a greater impact on discount stores than banks in relation to its contribution to brand loyalty?

It was also observed that the perceived quality to brand loyalty, and satisfaction to brand loyalty seemed to be stronger for the banks than the discount stores. This would suggest that the continuous interaction in the banking sector due to its service orientation (i.e. relationship building) could have contributed to this situation of higher brand loyalty in banks than that for the discount stores.

One key implication is that advertising spending is good for an organization in multiple ways beyond helping immediate sales, because it can influence key desirable affective, cognitive, as well as behavioral outcomes. Given that the direct effect of advertising spending on brand loyalty was not found to be significant, it implies that advertising spending may play a larger role in influencing affect and cognition via enhancing customers' perception of store image and perceived quality. These positive outcomes of advertising spending would then contribute toward enhanced brand loyalty. The robustness of these findings is evident since the effects hold both in a discount store context characterized by a low service component, as well as in a banking context typically associated with a high service component.

Although the advertising spending-perceived quality relationship is supported at $p < 0.05$, this result should be interpreted keeping in mind the nature of the banking

industry. Unlike the discount store shopping context, infrequent visits to a bank may imply a reduced effect of advertising spending on perceived quality. Further, the increasing prevalence and mainstream use of online banking services may have an enhanced effect on existing customers as compared to physical bank locations, irrespective of the impact of advertising spending. However, the link between advertising spending and perceived quality emerged as significant in the banking context.

One of the major contributions of this research is the impact of advertising spending on brand loyalty mediated by store image. Prior research has not established such a link. Our results show that this mediating effect occurs both in discount store and banking settings, thus confirming the robustness of this effect. As in some prior research we did not find a direct link between advertising spending and brand loyalty very weak or non-existent (e.g. Johnson, 1984; Villarejo-Ramos and Sanchez-Franco, 2005).

Managerial implications

This research highlights the key role of advertising spending in enhancing brand loyalty indirectly via influencing store image, satisfaction and perceived quality. Based on these findings, we propose that marketers may wish to focus on developing advertisements that can create and enhance consumers' knowledge structures pertaining to the brand, in order to eventually strengthen brand loyalty. In a similar vein, advertisements focusing on creating stronger knowledge structures associating the brand with positive quality themes would similarly influence brand loyalty via positive effects on perceived quality and satisfaction. In other words, since advertising influences brand loyalty indirectly through affecting image and quality, advertisements geared specifically toward affecting the comprehension and conviction stages of the communication process (as opposed to the preliminary attention stage) will ultimately result in enhanced brand loyalty.

This type of approach would also be consistent with prior research findings which suggest that advertising may be effective in increasing the volume of purchases made by existing buyers, but less effective in winning new buyers (Tellis, 1988). Thus, it may be more effective to combine advertisements focused on enhancing consumers' knowledge structures pertaining to the brand to build loyalty among existing customers with key sales promotion techniques such as sampling in order to encourage first time trial purchases. Such an approach would be consistent with the hierarchy-of-effects framework embodied in the awareness-interest-desire-action sequence of the AIDA model. An example of advertising aimed at enhancing the audience's knowledge structures pertaining to the brand (in effect enhancing perceived quality and image) is presenting information about a recent award won by the brand. Airlines often use this strategy by linking their brand to industry awards related to on-time flights or minimal baggage delays. Such strategies can also be utilized by marketers in other industries in order to enhance consumers' loyalty to their brands.

Limitations and further research

Follow on studies might test the research model from this study in other service sectors and cultures using similar systematic random sampling procedures. Our study was conducted in South Korea and in the banking and retail sectors. Are these results

generalizable to other countries and in other services? Further, this study used previously developed scales and these measures were developed in a different culture than the culture in which this study was conducted. Although a back-translation procedure was used to ensure equivalence of the questions in the scales, more robust scales could be developed for the specific culture in which the study is conducted. Future studies might be conducted in more than one culture to test the model appropriateness and fit in different cultures to make cross-cultural comparisons of the direct and indirect effects of advertising spending on brand loyalty. The challenge is to develop scales in the cultures where these studies are conducted.

A second set of limitations suggesting potential for future research relates to the interrelationships between the observed variables. The alternative models used in this study were limited by the reliance on variables and their interrelationships from prior research. To fully specify the development of brand loyalty, additional exploratory work to enlist other relevant observed variables and constructs with subsequent scale development for these constructs might have to be conducted. For example, brand awareness, associations, recall and attitude measures as related to advertising spending might uncover additional cognitive and attitudinal structural relationships with brand loyalty. Similarly, there may be other variables that can be included to improve the model. For example, improving service quality through its specific components or through service value could be linked to the development of brand loyalty. Brand trust may be also considered as an important mediating role on the development of brand loyalty. Further, it would be a significant improvement if a study could include actual observed measures in addition to the perceptual self-reports that were used in this study. For example, while the literature supports the proxy measure of advertising spending used in this study, actual advertising expenditures could provide an additional representation of the intensity of advertising. These actual measures of advertising and brand loyalty would be more convincing when conclusions for managerial implications need to be drawn.

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Further reading

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Appendix 1

**Brand loyalty
in services**

	Mean	SD	1	2	3	4	5	Tolerance	VIF
1. Advertising spending	2.95	0.941						0.911	1.098
2. Store image	3.42	0.878	0.372					0.802	1.246
3. Perceived quality	3.31	0.698	0.330	0.480				0.887	1.127
4. Satisfaction	2.85	1.177	0.004	0.299	0.186			0.894	1.119
5. Brand loyalty	3.48	0.930	0.133	0.648	0.665	0.534			
Reliability (α)			0.72	0.75	0.79	0.78	0.79		

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Table AI.

Correlation matrix for bank

Notes: All correlations are significant at $p < 0.05$; there is no indication of multicollinearity, since all Tolerance values are well above 0.4 and no VIF is above 2.5 (Tabachnick and Fidell, 1999); $n = 261$

Appendix 2

	Mean	SD	1	2	3	4	5	Tolerance	VIF
1. Advertising spending	2.76	0.969						0.948	1.055
2. Store image	3.35	0.918	0.362					0.864	1.157
3. Perceived quality	3.21	0.657	0.193	0.670				0.883	1.132
4. Satisfaction	2.60	1.115	0.125	0.354	0.354			0.946	1.057
5. Brand loyalty	3.33	0.843	0.223	0.648	0.531	0.471			
Reliability (α)			0.69	0.81	0.77	0.79	0.79		

Table AII.

Correlation matrix for discount store

Notes: All correlations are significant at $p < 0.05$; there is no indication of multicollinearity, since all Tolerance values are well above 0.4 and no VIF is above 2.5 (Tabachnick and Fidell, 1999); $n = 247$

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