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Article

Integrative view of emotion and the dedication-constraint model in the case of coffee chain retailers

Dadkil Kim [1] and Byoungsoo Kim[2,*]

[1] School of Communications and Media, Seoul Women's University, 621 Hwarangro, Nowon-Gu, Seoul 01797, South Korea; chris74@swu.ac.kr; Tel.: +82-2-970-5588

2 School of Business, Yeungnam University, 280 Daehakro, Gyeongsansi 38541, South Korea; kbsyu@yu.ac.kr; Tel.: +82-53-810-2730

* Correspondence: kbsyu@yu.ac.kr; Tel.: +82-53-810-2730

Abstract: Following the phenomenal growth of and competition among coffee chain retailers, the coffee chain market has expanded substantially thanks to rising income levels, the increasing young population, and rapidly changing lifestyles. Attracting consumers' attention and enhancing their loyalty behaviors have become very difficult for coffee chain retailers. This study seeks to understand the mechanisms through which emotions and the dedication-constraint model lead to brand loyalty and willingness to pay more to certain coffee chain retailers. Emotions and the dedication-constraint model are major factors in the research, but few studies have combined them to examine the formation of loyalty behaviors. This study synthesizes emotional responses and the dedication-constraint model to develop a theoretical model. Based on the ambivalent view of emotions, it also examines how positive and negative emotions affect the combination of brand loyalty and willingness to pay more to certain coffee chain retailers. Moreover, it identifies the antecedents of affective and calculative commitments in the context of coffee chain retailers. Our findings indicate that loyalty behaviors (dedication- and constraint-based mechanisms from brand loyalty and willingness to pay more to certain coffee chain retailers), emotional responses, and affective and calculative commitments significantly affect brand loyalty directly and indirectly through both positive and negative emotions. Furthermore, service quality, physical environment quality, and price fairness significantly affect affective commitments, while price fairness significantly affects both affective and calculative commitments. Finally, affective and calculative commitments significantly affect willingness to pay more, both directly and indirectly, through positive emotions and affect it directly through negative emotions. The results' theoretical and managerial implications and possible future research directions are discussed.

Keywords: emotion; commitment; brand loyalty; willingness to pay more; coffee quality; service quality; physical environment quality; price fairness

1. Introduction

Since the early 2000s, fierce competition in the coffee chain industry has led coffee chain retailers to establish long-term relationships with consumers to inspire brand loyalty and form positive emotions in order to induce customers to pay more. Improved consumer loyalty behaviors such as brand loyalty and willingness to pay more may lead to more revisits and higher consumption levels, resulting in larger revenues and higher profitability. Along with brand loyalty, willingness to pay more has been proven to be a key determinant of consumer loyalty behaviors in many studies [1, 2, 3]. Therefore, service providers are anxious to manage consumers' service experiences in a way that inspires favorable feelings [4, 5]. Most works on service management and marketing have focused on identifying the key antecedents of consumers' brand loyalty and willingness to pay more [6, 7, 8]. In highly competitive service markets such as the coffee chain industry, organizations strive to establish distinctive brand images that differentiate them from competitors with a view to forming favorable

emotions toward their brands. A key to the construction and maintenance of healthy customer relationships is consumers' emotions [7, 8].

Previous studies have also indicated that consumers with positive emotions form stronger brand loyalty and willingness to pay more [9, 10]. Several studies investigated the effects of emotions on consumer loyalty behaviors in the service industry [11, 12]. According to the service-profit chain model, consumers with positive emotions develop brand loyalty and willingness to pay more, while consumers with negative emotions do not revisit the store and are thus not willing to pay more. Thus, emotions constitute a key predictor of consumers' decision-making in the service industry [11, 12].

Another key mechanism for understanding consumer loyalty behaviors is dedication, which is a "psychological state that compels an individual toward a course of action" [13]. It consists of two main commitments: affective commitment and calculative commitment. Consumers' desire to maintain a relationship with their current service provider is part of the dedication-based mechanism, while the constraint-based mechanism forces users to maintain current relationships and strengthens the lock-in effect [14, 15]. Studies on the service industry have shown that brand loyalty and willingness to pay more both flow from dedication- and constraint-based mechanisms [16, 17]. Zeithaml et al. [16] argued that willingness to pay more was a dimension of brand loyalty, influenced by both dedication- and constraint-based mechanisms through positive WOM (word of mouth) and complaint behaviors. Bloemer and Odekerken-Schröder [18] identified the vital roles played by psychological factors while examining the dedication-constraint model to identify the determinants of brand loyalty in the banking setting. Kaur and Soch [19] confirmed the salience of dedication- and constraint-based factors in the formation of customers' loyalty among Indian cellphone users. Jones et al. [20] also demonstrated the role of commitment and emotional mediators while emphasizing the behavioral outcomes in relation to the respondents' experience of the service provider or retailer. Affective and calculative commitments may stimulate both types of emotions simultaneously, establishing brand loyalty. This implies that both emotional responses and the dedication-constraint model affect loyalty behaviors. In particular, the intangible characteristics of the service industry reinforce the role of emotions in customers' decision-making processes because consumers rely heavily on tangible cues such as physical interior design, atmosphere, and brand name.

A number of studies on service marketing and hospitality management investigated the effects of service experiences on consumers' decision-making [21, 22, 23]. Customers judge service experiences based on functional, mechanic, and humane cues [21, 22]. The technical quality of the service is associated with functional cues such as drinking coffee at an appropriate temperature. Therefore, functional cues are essential for generating positive attitudes toward service experiences [23]. Physical environment factors (i.e., facility and atmosphere) may greatly affect customers' attitudes, service evaluation, and behaviors [21, 22]. The ambience at a coffee chain outlet provides distinctive stimuli to customers through the interiors and layout, so that the customers may develop positive attitudes toward the outlet. Service performance factors such as the employees' tone of voice and empathy are associated with humane cues. For coffee chain consumers, friendly smiles and sincere greetings from employees can create superior customer experiences [23, 24]. However, very few studies have investigated these three aspects of the service experience in relation to consumer satisfaction with, and brand images of, coffee chains. From the viewpoint of the dedication-based mechanism, this study assumes that coffee quality, physical environment quality, and service quality are service experience components that are vital for developing consumer satisfaction and brand image. These aspects have hardly been studied in relation to loyalty behaviors, brand loyalty, or willingness to pay more to coffee chains.

In summary, this study's research model explains how different types of commitments differentially affect positive and negative emotions in the context of coffee chain retailers. Furthermore, this study investigates the key enablers of the dedication- and constraint-based mechanisms. A review of studies on commitment indicates that the linkages between affective and calculative commitments and coffee quality, service quality, physical environment quality, and price fairness should also be analyzed.

The remainder of this paper is organized as follows. The next section presents the theoretical background for the research model. Section 3 describes the study's theoretical model and hypotheses.

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Section 4 reports the research methodology and the characteristics of the study's respondents. Section 5 presents the analysis results, while Section 6 discusses the findings, provides several implications for researchers and practitioners, and outlines the limitations of the study. Finally, Section 7 concludes the paper.

2. Theoretical Background and Research Model

2.1. Emotions

Certain user experiences generate emotions, referred to as "affective responses" [25]. Several studies indicated that responses induce emotions through the use of a product or service [25, 26]. Consumers use pleasure or emotional responses elicited by consumption experiences as a basis for evaluating services or products. Emotions are distinct from moods, which are transient and changeable [27, 28]. Emotions are relatively steady and enduring, while moods are less intense and situation-specific [29, 30]. Some studies indicated that emotions affect consumers' loyalty behaviors. Several studies on service management and marketing have shown that consumption emotions significantly affect consumers' loyalty behaviors. Jones et al. [20] investigated the effects of consumers' emotions on their repurchase intentions and negative WOM. They found that both affective and calculative commitments were main sources of the drivers of consumers' emotions. Lee et al. [31] examined the links among festival scales, patron emotions, and loyalty in an international festival context. They found that consumers' judgments about festival environments drove their emotions, thereby affecting subsequent behavioral intentions. Jung and Yoon [32] investigated the links between employees' nonverbal communication, consumers' emotions, and satisfaction in the family restaurant setting. Emotional responses in the service industry stem mainly from interactions with employees or evaluations of store facilities. However, pleasure or emotional usage experiences about IS services can also trigger emotional responses. Beaudry and Pinsonneault [33] showed that positive emotions such as excitement and happiness significantly affected users' adoption behaviors. Wakefield [34] assumed that users' intentions to disclose personal information in the context of websites related to negative emotions.

Several studies on consumer behaviors and marketing demonstrated that emotions consist of two dominant dimensions, positive and negative, that are orthogonal to each other [35, 36]. Happiness, love, and pride are associated with positive emotions, while fear, anger, and sadness relate to negative emotions [35]. The independent and distinct factors that affect consumers' purchase-related decision making have been identified with positive and negative emotions [37, 38]. Positive emotions may promote repurchase intentions and positive WOM, while negative emotions may lead to negative WOM and discontinuance intentions. Several studies have shown that positive emotions experienced by customers affect revisit intentions more significantly than negative emotions do. For instance, Phillips and Baumgartner [36] demonstrated that positive emotions are a stronger determinant of consumer satisfaction than negative emotions were. Pappas, Kourouthanassis, and Giannakos [39] also noted the role of positive emotions (vs. negative emotions) in influencing customer purchase intentions for personalized services. On the other hand, other studies have indicated that negative emotions have stronger effects on outcomes because customers typically weigh losses more heavily than gains [20]. Kuo and Wu [40] found a stronger relationship between negative emotions and satisfaction than between positive emotions and satisfaction in service recovery situations. Jones et al. [20] found that negative emotions had a greater effect on post-purchase behaviors, such as repurchase intentions and the spread of WOM, than positive emotions had. In fact, they found that positive emotions had no influence on repurchase intentions or the spread of WOM. Therefore, a simultaneous examination of users' positive and negative emotions is essential for understanding the differential roles of these two components in consumer loyalty. We thus assume that two major components of emotion are the core components of consumer loyalty behaviors in the context of coffee chains.

2.2. Dedication-Constraint Model

Researchers on the retail industry and service management have increasingly recognized the importance of commitment in explaining brand loyalty in diverse service environments [20, 41]. Commitment refers to a "psychological state that compels an individual toward a course of action" [13]. Several works on commitment have suggested that emotions result from two main commitments: affective commitment and calculative commitment [23]. The dedication-constraint model concerns these two distinctive commitments. Consumers' desire to maintain a relationship with their current service provider is associated with the dedication-based mechanism, while the constraint-based mechanism forces users to maintain current relationships and strengthens the lock-in effect [14, 15].

A number of studies have concentrated on affective commitment as a dedication factor. Affective commitment may explain brand loyalty and may encourage customers to pay more. Because commitment is an attitudinal component of brand loyalty, brand passion relates positively to willingness to pay more for a brand. Loyal consumers not only continually re-visit their preferred brand but are also willing to pay higher prices for it. Several studies on marketing and service management indicated that dedication- and constraint-based mechanisms can provide an in-depth understanding of why customers' relationships with their current service providers are maintained and retained [42, 43]. Customers establish relationships with their service providers either because they want to receive the benefits based on favorable experiences or have few other choices. Zhou et al. [42] developed a dedication- and constraint-based framework by integrating the concepts of affective and calculative commitments in the context of the social virtual world. They also identified the key antecedents of dedication and constraint factors. Lin et al. [43] studied the telecommunication industry using the dedication/constraint model and employing customer loyalty as a variable. They proved that constraint-based factors were associated with customer loyalty more strongly than dedication-based factors were. Baloglu et al. [44] developed a theoretical model integrating constraint-based factors (perceived switching costs and loyalty program) and dedication-based factors (trust and emotional commitment) to examine consumer loyalty in the casino context.

According to the social exchange theory, dedication reflects an emotion-based evaluation that leads to maintaining a long-term relationship with the current service provider [14]. Gounaris [45] examined the concept of "affective commitment," a positive perception of and attachment to a certain service provider, constructed on dedication-based mechanisms. An affectively committed service provider maintains a long-term relationship by providing consumers with favorable experiences that fulfill their psychological needs. Constraint-based mechanisms are used to capture consumers through calculative commitment, which reflects consumers' cognition, reduces interest in alternative services, and creates a lock-in effect [46]. Lu et al. [47] investigated the role played by service value and switching barriers in customer loyalty behaviors in the passenger transportation service context.

Kim [48] demonstrated that emotions and both dedication- and constraint-based mechanisms jointly formed consumer loyalty to a mobile messenger service. These results indicated that both dedication- and constraint-based mechanisms explained the variance in consumer loyalty. Most studies have indicated that dedication-based factors in the coffee chain context, such as consumer satisfaction and brand image, were dominant but that some consumers were likely to retain relationships with a certain coffee chain because of brand loyalty, to avoid incurring losses in economic, social, or psychological investments by switching to another coffee chain. Therefore, this study suggests that a dual model would provide comprehensive information on customer's loyalty behaviors.

The desire to establish long-term relationships relates to dedication-based mechanisms, while forces that constrain consumers to current relationships regardless of the perceived benefits (such as coffee quality, service quality, physical environment quality, and price fairness) are associated with constraint-based mechanisms. In the coffee chain retailer environment, since both dedication and constraint factors may affect brand loyalty and willingness to pay more, the dedication-constraint model is suitable for explaining consumer loyalty behaviors. Therefore, we develop a theoretical

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model based on the integrated view of emotions and dedication-constraint mechanisms to capture both the cognition- and emotion-based features of loyalty behaviors.

3. Research Model and Hypotheses

Consumer loyalty has been predicted in SM based on two main research streams: emotions and the dedication-constraint model. W synthesize these two research streams to develop a theoretical model. We regard affective commitment as the manifestation of the dedication-based mechanism and calculative commitment as the manifestation of the constraint-based mechanism. Placing model development in the context of coffee chain retailers, we also propose that coffee quality, service quality, physical environment quality, and price fairness are four drivers of affective and calculative commitment to the two key loyalty behaviors—brand loyalty and willingness to pay more.

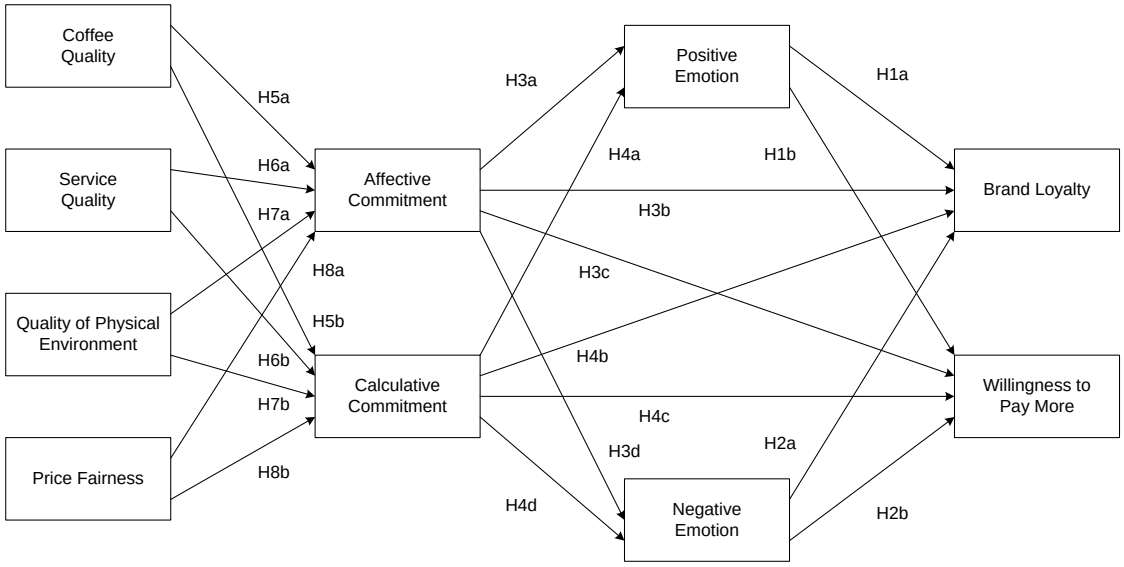

Figure 1. Research model.

3.1. Emotions

Customer loyalty consists of loyalty behaviors (customers' repeated purchase of current brands rather than competitor brands) and encompasses loyal attitudes, opinions, and feelings about products. Firms seek to create brand loyalty because retaining existing customers is less costly than obtaining new ones. Tanford et al. [49] showed that loyalty behaviors, such as the willingness to pay more for a hotel room, related positively to emotional commitment. Positive emotions such as delight and elation [50] were found to arise from the cognitive process of confirmation/disconfirmation and contribute to (dis)satisfaction. Jones et al. [20] examined the differential roles of negative and positive emotions in the formation of repurchase intentions and the spread of negative WOM. Chea and Luo [51] found that negative emotions significantly affected complaints, while positive emotions had no significant effect on satisfaction or recommendation in the context of online services. Jung and Yoon [32] examined the effects of consumers' positive and negative emotions on satisfaction in the family restaurant setting. Yu and Dean [12] found significant relationships between emotional components and customer loyalty behaviors. In particular, they found that willingness to pay more was positively associated with positive emotions. Willingness-to-pay (WTP) has been defined as the willingness to accept higher prices than a competitor's and continue to do business with a preferred brand even if it raises its prices [52]. Tanford et al. [49] found that willingness to pay was the premium customers paid for a brand to which they were loyal. Strahilevitz [53] noted that emotions affected consumers' willingness to pay more for a charity-linked brand. Parasuraman [54] developed a loyalty scale and found that loyalty consisted of loyalty to company, propensity to switch, willingness to pay more, external responses to problems, and internal responses to problems.

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In the context of coffee chain retailers, the emotions consumers feel while using services comprise core components of their loyalty behaviors. In particular, positive and negative emotions tend to increase and decrease brand loyalty and willingness to pay more, respectively. We examine the relative effects of each type of consumer emotion on brand loyalty and willingness to pay more. Using a higher feeling of trust as an indicator of customer loyalty, Delgado-Ballester and MunueraAleman [55] found empirical evidence that customer loyalty affected the level of price tolerance. It is thus reasonable to conclude that emotions led to customers' brand loyalty and willingness to pay more, thereby indirectly affecting the outcomes of loyalty behaviors. We thus propose the following:

H1a: Positive emotions have a positive effect on brand loyalty.
H1b: Positive emotions have a positive effect on willingness to pay more.
H2a: Negative emotions have a negative effect on brand loyalty.
H2b: Negative emotions have a negative effect on willingness to pay more.

3.2. Commitment

Affective commitment is an enduring desire to attract users and maintain relationships with service providers. Affective commitment pertains to psychological attachment caused by positive sentiment and identification. Verhoef [56] showed that affective commitment had significant effects on relationship maintenance in the context of financial services. Some researchers have found that affective commitment reflected customers' involvement in an enduring relationship due to a related delight experience [48, 56]. Customers with a high level of affective commitment choose to stay with the current service provider and avoid engaging in any activities that are detrimental to it. Therefore, many service providers try to enhance customers' affective commitment to them because customers with a high level of affective commitment become more loyal, even when prices are raised, which means that they become more willing to pay more for their service. Several studies have posited that affective commitment is a main source of dedication-based mechanisms [57]. Favorable experiences that fulfill a consumer's utilitarian and social needs facilitate the development of affective commitment, which, in turn, builds brand loyalty. In the context of coffee chain retailers, affective commitment may play a critical role in forming loyalty behaviors. Much empirical research in marketing has shown that affective commitment evokes positive emotional responses and alleviates negative emotional outcomes [20]. Han et al. [58] proposed a theoretical framework for brand loyalty and provided sufficient explanatory power when investigating affective and cognition commitments in the context of the coffee shop chain industry. The two main types of commitments are affective and continuance [59]. Affective commitment is the aspiration to cultivate a positive long-term relationship led by loyalty and affiliation [60], while continuance commitment typically stems from consumers' rational motives related to termination or switching costs [59].

Coffee chain customers with a high level of affective commitment want to stay with the current provider due to the positive benefits. Therefore, such customers' psychological attachment to the coffee chain service provider generates positive emotions and mitigates negative emotions. Numerous researchers have investigated the connections between affective commitment and brand loyalty [61, 62], finding positive effects of affective commitment on brand loyalty. Affective commitment impacts loyalty to a much higher degree than continuance commitment does and could directly drive behavioral loyalty. Consumers with an emotional attachment to a coffee brand tend to express their loyalty behaviorally and vigorously by repurchasing, spreading positive WOM, and not visiting competitors' stores. Thus, the following hypotheses are proposed:

H3a: Affective commitment positively influences positive emotions.
H3b: Affective commitment positively influences brand royalty.
H3c: Affective commitment positively influences willingness to pay more.
H3d: Affective commitment positively influences negative emotions.

Calculative commitment is the degree to which users recognize that existing service locks them in due to the potential costs of switching to alternative services or discontinuance [63]. Bansal, Irving, and Taylor [64] identified calculative commitment as a rational and economic calculation by analyzing consumers' cognitive benefits and costs of maintaining a relationship. Calculative commitment induces consumers to maintain a long-term relationship because of the relatively high costs associated with switching or discontinuance. Bilgihan and Bujisic [65] investigated the positive effect of calculative commitment in building up brand loyalty to hotel booking sites. They reported that consumers who perceived high switching costs and a lack of alternatives were likely to stay with their current service providers.

In the context of coffee chain retailers, Yang et al. [66] found that consumer commitments, including calculative commitment, positively affected brand loyalty and the repeated use of current franchises and chain coffee shops. They discovered that consumers with close relationships with service providers repeatedly used their current chain coffee shops because of the strong enforcement of customer commitment. Therefore, calculative commitment is likely to build brand loyalty since users with high levels of calculative commitment have a strong lock-in commitment. However, other researchers have suggested that calculative commitment acts as a negative motivation against continuing a current relationship [20]. Calculative commitment can induce consumers to perceive the current relationship negatively due to their perceived loss of control. According to the self-determination theory, perceptions of a reduced freedom of choice or self-determination tend to lead to negative reactions [67]. In line with the self-determination theory, Jones et al. [20] demonstrated the positive effects of calculative commitment on negative emotions. In the context of coffee chain retailers, calculative commitment may serve as a negative motivation that evokes negative emotions when service providers have locked in consumers due to the reduction of alternatives and the huge investments made. We thus propose the following:

H4a: Calculative commitment positively influences positive emotions.
H4b: Calculative commitment positively influences brand royalty.
H4c: Calculative commitment positively influences willingness to pay more.
H4d: Calculative commitment positively influences negative emotions.

3.3. Coffee Quality

Coffee quality arises through the evaluation of coffee served by coffee chains [24]. It is a functional cue of service experiences and a fundamental attribute of coffee chains. Freshness, aroma, flavor, and temperature all affect coffee quality [24, 66]. Consumers' perceptions of coffee quality affect their decisions to patronize a coffee chain and spread positive WOM. Kim et al. [4] noted that bean quality, flavor, and aroma are key factors in evaluations of coffee chains. A positive assessment of coffee freshness, aroma, and temperature may enhance consumer satisfaction with a coffee chain [23]. Furthermore, consumers' evaluation of the superiority and excellence of coffee quality may affect the brand image of the coffee chain. Yang et al. [66] provided empirical evidence that customer commitments, including affective and calculative commitments, were positively associated with coffee quality. Excellent consumer experiences with a flavorful coffee should reinforce positive images of the coffee chain. We thus propose the following:

H5a: Coffee quality positively influences affective commitment.
H5b: Coffee quality positively influences calculative commitment.

Service quality refers to the cognitive evaluation of the services provided by employees and service providers [16]. Service quality can induce a consumer's subjective responses to objects based on service employees' attitudes and performance during service delivery [4, 16]. The delivery of excellent service by courteous employees leads to a superior customer experience. Several studies verified a significant role of service quality for customers' delightful experience as well as brand loyalty in restaurants, hotels, and bakeries. Ryu et al. [68] indicated that intangible service qualities,

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such as helpful employees, individualized customer attention, and efficient customer service, played a significant role in developing consumers' positive service experience. Coffee customers grade the quality service based on not only coffee quality but also the service provider's attitude and performance [16, 24]. Therefore, service quality is a core determinant of customer satisfaction and helps strengthen positive brand image.

H6a: Service quality positively influences affective commitment
H6b: Service quality positively influences calculative commitment

The quality of a physical environment arises through customers' emotional responses to the service environment [69]. Although coffee quality plays a critical role in a coffee chain's success, excellent coffee quality alone is insufficient [24]. Mechanical clues are a vital factor in service marketing because the intangibility of the services they receive forces customers to rely on tangible evidence when assessing their service experiences [68]. Han and Ryu [70] indicated that customers' perceptions of physical factors such as artifacts, spatial layout, and ambient conditions strengthened their positive experiences at restaurants. Furthermore, several studies demonstrated that the physical environments in hotels and restaurants strengthened brand loyalty [70]. Tumanan and Lansangan [71] showed that physical elements such as design and layout played a prominent role in developing positive customer experiences in coffee chains. Alan et al. [23] found that the psychical atmospheric environment was a primary component of store-related cognitions that would evoke positive emotions and customer satisfaction. Yang et al. [66] concluded that an effective strategy for enhancing the customer experience was to improve the quality of the atmosphere (facilities and ambient/lighting) with a view to enhancing affective and calculative commitments. Therefore, consumers' awareness of the physical surroundings during a stay of a coffee shop and their evaluation are likely to play key roles in customer satisfaction and brand image. We thus propose the following:

H7a: Physical environment quality positively influences affective commitment.
H7b: Physical environment quality positively influences calculative commitment.

3.4. Price Fairness

Price fairness arises from subjective perceptions about prices. While an objective price represents the monetary cost (an objective external characteristic) of a product/service [72], a perceived (subjective) price is the internalized price impression formed when individuals subjectively assess prices based on product/service quality information [73, 74]. An objective price becomes acceptable to customers only when the internalized price impression is valid to them [74]. Price fairness is achieved when customers perceive the price of a particular offer as "being right, just, or legitimate instead of being wrong, unjust, or illegitimate" [75]. Distributive and procedural price fairness based on the justice theory is connected to the concept of price fairness [76]. Distributive price fairness reflects the fairness of a particular outcome (such as a transaction). The process of bringing about the outcome relates to procedural price fairness. Perceived prices are a reliable indicator of product/service quality. Customer perceptions of price fairness were found to enhance the quality of the relationship between luxury restaurants and customers, leading to customer loyalty [70]. Customers who regard a price as absurd to the extent that they feel cheated become dissatisfied and fail to develop relationships with the service provider [77]. Yang et al. [66] utilized prices fairness as an indicator of the performance of customer experiences in the context of coffee chain retailers. Given the above, we propose the following:

H8a: Price fairness positively influences affective commitment.
H8b: Price fairness positively influences calculative commitment

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4. Research Methodology

4.1. Instrument Development

The survey items in this study were selected from validated studies on marketing, service management, and hospitality management and were modified to fit the coffee chain context. The study's questionnaire was divided into two sections. The first included questions that measured the constructs in the research model. A seven-point Likert-type scale (1= "strongly disagree"; 7 = "strongly agree") was used for each survey item corresponding to the constructs. The second section included demographic information (age, gender, and monthly average consumption expenses). Before the main survey was conducted, two marketing and service management scholars reviewed the questionnaire to check for problems with content, wording, and question ambiguity. The modified questionnaire was pilot-tested on 80 university students. All constructs in the theoretical framework were verified for reliability based on Cronbach's alpha values; all exceed the accepted 0.7 level of reliability. Appendix A lists the survey items of the model constructs with related references.

4.2. Data Collection

We gathered empirical data from a leading online research company using a wide range of panels in South Korea. A link for the survey was e-mailed to roughly 1,000 panels and advertised on the website of the research company from September 21 to 30, 2017. This method is a useful way to overcome sample bias and obtain generalizable analysis results. After frivolous and insincere responses were deleted through data filtering, 400 responses remained for the analysis. Of the final sample, 51.2% of respondents were female. The ages of respondents ranged from 20 to 65, with a mean age of 39.33 and a standard deviation of 10.022. Table 1 provides demographic information on the respondents.

Table 1. Profile of respondents

Demographics	**Item**	**Subjects**	
		Frequency	**Percentage**
Gender	Male	195	48.8
	Female	205	51.2
Age	Less than 30	75	18.8
	30~39	139	34.8
	40~49	122	30.5
	More than 50	64	16.0
Average Income per month	Less than 500,000 won	36	9.0
	500,000~1,000,000 won	27	6.8
	1,000,000~2,000,000 won	73	18.3
	2,000,000~3,000,000 won	86	21.5
	3,000,000~5,000,000 won	120	30.0
	More than 5,000,000 won	58	14.5
Visiting frequency at coffee chain per month	Once	34	8.6
	2~5 times	189	47.3
	6~10 times	88	22.0
	11~20 times	66	16.5
	More than 20 times	23	5.8
Average expenditure at coffee chain per month	Less than 5,000 won	14	3.5
	5,000~10,000 won	50	12.5
	10,000~20,000 won	71	17.8
	20,000~30,000 won	75	18.8

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	30,000~50,000 won	99	24.8
	50,000~100,000 won	64	16.0
	More than 100,000 won	27	6.8

Note: 1$ ≈ 1200won

4.3. Data Analysis

We analyzed the theoretical framework using the partial least squares (PLS) method with SmartPLS. The PLS is well-suited for research using complex predictive models [78]. Moreover, this method places fewer restrictions on sample size and residual distributions than covariance-based structural equation models such as LISREL and AMOS [78]. The PLS method has been found to be useful in the marketing, service management, and hospitality management domains. A two-step approach suggested by Anderson and Gerbing [79] was used to assess the measurement model and structural model for reliability, convergent validity, and discriminant validity.

5. Results

5.1. Measurement Model

Reliability, convergent validity, and discriminant validity were assessed through confirmatory factor analysis. First, in verifying the reliability of the constructs, composite reliability (CR), average variance extracted (AVE), and Cronbach's alpha are acceptable if the CR and Cronbach's alpha values exceed 0.70 and if the AVE values exceed 0.50 [80]. As shown in Table 2, all factors in the theoretical model have acceptable values. Second, to check convergent validity, this study examined the factor loading values of the measurement items, as shown in Table 2. Convergent validity is acceptable if the factor loading values exceed 0.70 [81]. The lowest factor loading in this study was 0.703 (SEQ1), which confirmed convergent validity. Finally, the AVE values of the individual factors were compared to the shared variances between them to investigate discriminant validity. In Table 3, the diagonal elements are the values of the square root of the AVE. All the AVE values exceed those of the off-diagonal elements in the corresponding rows and columns, satisfying discriminant validity.

Table 2. Scale reliabilities.

Construct	Item	Mean	St. dev.	Factor loading	Cronbach's alpha	CR	AVE
Brand loyalty	BRL1	4.782	1.275	0.832	0.882	0.919	0.739
	BRL2	4.400	1.533	0.864			
	BRL3	4.785	1.278	0.869			
	BRL4	4.665	1.301	0.873			
Willingness to pay more	WPM1	4.537	1.372	0.885	0.858	0.913	0.779
	WPM2	4.530	1.405	0.887			
	WPM3	4.522	1.554	0.875			
Positive emotion	PEM1	4.673	1.156	0.866	0.762	0.863	0.678
	PEM2	4.270	1.354	0.805			
	PEM3	4.888	1.122	0.798			
Negative emotion	NEM1	2.792	1.189	0.925	0.927	0.953	0.872
	NEM2	2.533	1.187	0.932			
	NEM3	2.587	1.293	0.944			
Affective commitment	ACO1	5.263	1.117	0.860	0.844	0.906	0.762
	ACO2	4.985	1.212	0.890			
	ACO3	4.758	1.322	0.868			
Calculative	CCO1	4.470	1.421	0.868	0.902	0.931	0.772

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commitment	CCO2	4.327	1.518	0.863			
	CCO3	4.008	1.639	0.900			
	CCO4	3.825	1.716	0.883			
Coffee quality	COQ1	5.200	1.127	0.856	0.868	0.91	0.716
	COQ2	5.200	1.114	0.883			
	COQ3	5.295	1.157	0.844			
	COQ4	5.315	1.098	0.800			
Service quality	SEQ1	5.543	1.155	0.703	0.825	0.881	0.651
	SEQ2	5.415	1.071	0.807			
	SEQ3	5.190	1.135	0.845			
	SEQ4	5.258	1.107	0.863			
Quality of physical environment	QPE1	5.237	1.061	0.827	0.838	0.892	0.673
	QPE2	5.370	1.053	0.833			
	QPE3	5.338	1.039	0.811			
	QPE4	5.405	1.042	0.811			
Price fairness	PFA1	4.280	1.434	0.912	0.944	0.96	0.856
	PFA2	4.255	1.493	0.926			
	PFA3	4.308	1.455	0.933			
	PFA4	4.207	1.510	0.930			

Table 3. Correlation matrix and discriminant assessment.

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
1. Brand loyalty	0.860									
2. Willingness to pay more	0.743	0.882								
3. Positive emotion	0.681	0.636	0.824							
4. Negative emotion	-0.226	-0.201	-0.251	0.934						
5. Affective commitment	0.662	0.633	0.610	-0.299	0.873					
6. Calculative commitment	0.651	0.601	0.533	0.076	0.497	0.879				
7. Coffee quality	0.458	0.432	0.500	-0.301	0.491	0.226	0.846			
8. Service quality	0.407	0.388	0.443	-0.372	0.571	0.272	0.586	0.807		
9. Quality of physical environment	0.396	0.369	0.402	-0.335	0.569	0.189	0.626	0.727	0.821	
10. Price fairness	0.501	0.511	0.435	-0.154	0.467	0.530	0.284	0.332	0.239	0.925

5.2. Structural Model

This study tested the theoretical framework using a bootstrap resampling procedure with 500 resamples. Figure 2 presents the analysis results.

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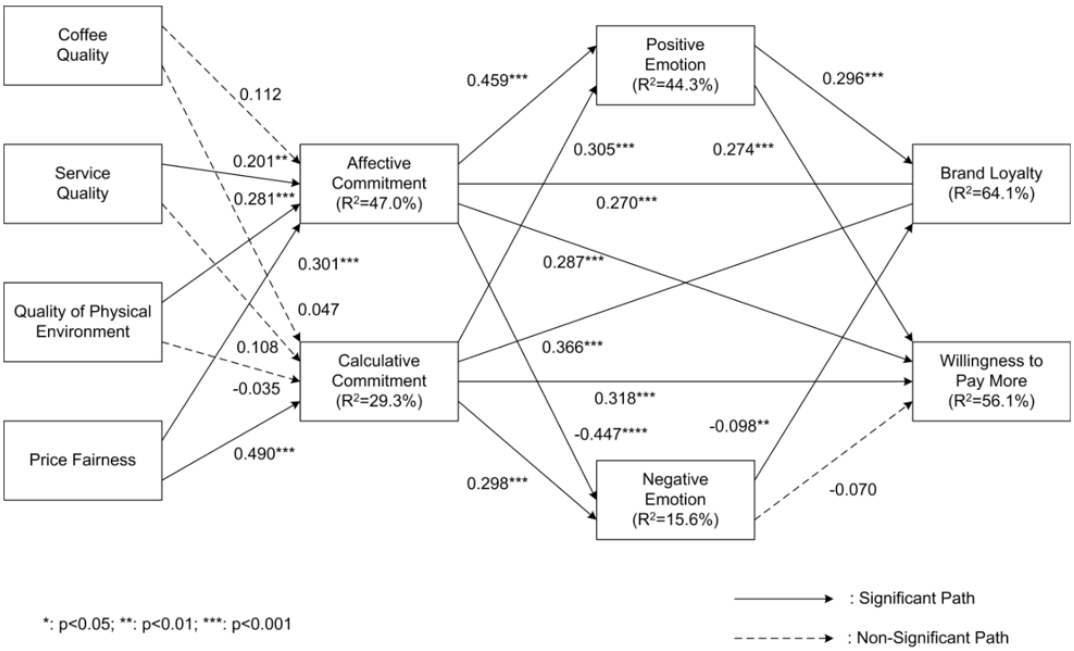

Figure 2. The analysis results.

Our theoretical framework accounted for 64.1% of the variance of brand loyalty. The theoretical framework also accounted for 56.1% of the variance of willingness to pay more. Positive emotions had significantly positive effects on brand loyalty, while negative emotions had negative effects on brand loyalty, thereby providing empirical support for H1a and H1b, respectively. Positive emotions, brand loyalty, and negative emotions were significantly associated with affective commitment, supporting H2a and H2b but rejecting H2c. Consistent with our expectations, calculative commitment had significantly positive effects on negative emotions and brand loyalty. However, contrary to our expectations, positive emotions were positively related to calculative commitment. These results supported H3a and H3c but rejected H3b. The antecedents of positive and negative emotions explained 44.3% of the former variance and 15.6% of the latter variance. Perceived service quality, perceived physical environment quality, and price fairness had significant effects on affective commitment, supporting H4a, H5a, and H6a. However, these factors had no significant effect on calculative commitment, rejecting H4b, H5b, and H6b. Calculative commitment was significantly associated with price fairness, supporting H7. These determinants explained 47.0% of the variance of affective commitment and 29.3% of the variance of calculative commitment. Table 4 summarizes the study's results.

Table 4. Summary of the results.

	Cause	Effect	Coefficient	t-value	Hypothesis
H1a	Positive emotion	Brand loyalty	0.296	4.863	Supported
H1b	Positive emotion	Willingness to pay more	0.274	4.583	Supported
H2a	Negative emotion	Brand loyalty	-0.098	2.644	Supported
H2b	Negative emotion	Willingness to pay more	-0.07	1.543	Not Supported
H3a	Affective commitment	Positive emotion	0.459	9.030	Supported
H3b	Affective commitment	Brand loyalty	0.270	4.412	Supported
H3c	Affective commitment	Willingness to pay more	0.287	4.351	Supported
H3d	Affective commitment	Negative emotion	-0.447	7.908	Supported
H4a	Calculative commitment	Positive emotion	0.305	6.151	Supported

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H4b	Calculative commitment	Brand loyalty	0.366	7.753	Supported
H4c	Calculative commitment	Willingness to pay more	0.318	5.784	Supported
H4d	Calculative commitment	Negative emotion	0.298	5.629	Supported
H5a	Affective commitment	Coffee quality	0.112	1.460	Not Supported
H5b	Affective commitment	Service quality	0.201	2.784	Supported
H5c	Affective commitment	Quality of physical environment	0.281	3.819	Supported
H5d	Affective commitment	Price fairness	0.301	6.569	Supported
H6a	Calculative commitment	Coffee quality	0.047	0.801	Not Supported
H6b	Calculative commitment	Service quality	0.108	1.378	Not Supported
H6c	Calculative commitment	Quality of physical environment	-0.035	0.482	Not Supported
H6d	Calculative commitment	Price fairness	0.490	9.872	Supported

6. Implications

6.1. Summary of Results

In our research framework, three components determine brand loyalty and willingness to pay more to certain coffee chain retailers: emotional responses and dedication- and constraint-based mechanisms. The findings indicate that all constructs considered as key drivers in our study serve as independent and critical predictors of the formation of brand loyalty and willingness to pay more to specific coffee chain retailers.

Our proposed model provides strong explanatory power concerning brand loyalty, accounting for 63.8% of the variance. Our findings also indicate that the direct effects of dedication- and constraint-based factors on brand loyalty are much stronger than are those of emotional responses. Thatcher et al. [82] suggested that commitment is a more enduring and stable construct in short-term changes to service performance than are emotions. Chea and Luo [51] showed that, since the consumer experience of service is relatively unemotional, emotions had smaller effects on consumer behaviors. Consistent with the results of previous studies, this study found that both affective and calculative commitments were stronger determinants of consumers' behavior intentions than was either type of emotional response in the context of coffee chain retailers. Furthermore, our findings confirm that affective commitment plays a significant role in evoking positive emotions such as pleasure, happiness, and excitement. In particular, this study indicates that affective commitment significantly affected consumers' brand loyalty to coffee chain retailers in two ways: by indirectly affecting brand loyalty through positive emotions and by directly influencing brand loyalty. However, negative emotions were significantly related to affective commitment. Psychological attachments, such as liking and identification, may generate negative emotional responses. Calculative commitment significantly affected both types of emotional responses and brand loyalty. Although several SM and marketing studies have verified the positive effect of calculative commitment on consumers' behavior intentions, some studies have found significantly negative effects. Jone et al. [20] pointed out that calculative commitment could produce harmful outcomes in the form of negative emotions about and negative relationships with service providers. However, our results show that calculative commitment generated both negative emotional responses, such as anxiety and anger, and positive emotional responses such as pleasure and excitement. Therefore, this

study confirms the dual role of calculative commitment in forming brand loyalty in the context of coffee chain retailers.

Regarding willingness to pay more, the findings indicate that all the constructs considered as key drivers in our study served as independent and critical predictors of the formation of willingness to pay more, and also provided strong explanatory power, accounting for 55.7% of the variance. Furthermore, our findings reveal that the direct effects of dedication- and constraint-based factors on willingness to pay more were much stronger than were those of emotional responses. In line with previous studies, both affective and calculative commitments were stronger determinants of post-adoption behaviors than was either type of emotional response in the context of coffee chain retailers. In addition, affective commitment significantly affected willingness to pay more in two ways: by indirectly affecting willingness to pay more through positive emotions and by directly influencing willingness to pay more. In our results, calculative commitment generated both negative and positive emotional responses. Therefore, this study also confirms the dual role of calculative commitment in the formation of willingness to pay more in the context of coffee chain retailers.

This study has explored the key determinants of affective and calculative commitments in the coffee chain retailer environment. Perceived service quality, perceived physical environment quality, and perceived price fairness—but not coffee quality—explained a significant portion of the variance of affective commitment. One possible explanation of the result for perceived service quality is that consumers with higher perceptions of a coffee chain shop's service quality are more likely to remain loyal and have a higher willingness to pay more to their current coffee chain shop through attractive commitment. Concerning physical environment quality, consumers who believe that the current coffee chain retailer provides a high-quality physical environment will develop a high level of attractive commitment to it. Importantly, price fairness plays a prominent role in generating both affective and calculative commitments. This implies that the stronger a consumer's perception of the price fairness of a certain coffee chain retailer, the more likely the consumer is to stay with it instead of switching to an alternative. Moreover, contrary to service marketing and hospital management studies indicating that coffee quality serves as a key antecedent of the formation of positive attitudes toward coffee chains, our results showed that neither affective nor calculative commitment is significantly associated with coffee quality. Although coffee quality seems to be accepted as a fundamental and essential attribute of coffee chain retailers, it does not seem to matter to customers, perhaps because consumers regard coffee chain retailers as venues for meeting their need for social interaction, beyond just drinking a cup of coffee. The insignificance of coffee quality may also stem from the difficulty of differentiating between coffee qualities, such as aroma and freshness.

Consistent with our results, Yang et al. [66] reported that price fairness acted as a vital driver in elucidating both dedication- and constraint-based mechanisms and indicated that price fairness was the dominant factor and served as a key antecedent to the formation of both affective and calculative commitments in the context of coffee chain retailers.

The effects of perceived service quality and physical environment quality on calculative commitment were insignificant. Although consumers rationally evaluate service experiences based on functional, mechanical, and humane cues, the mechanical cues of coffee chains do not significantly affect consumer commitment in this context due to the homogeneous and undifferentiated physical environments across coffee chain brands.

6.2. Implications for Research

This study presents several theoretical implications. First, one major contribution of this study is that it simultaneously investigated two consumer loyalty behavior components—brand royalty and willingness to pay more—by synthesizing emotions and the dedication-constraint model in the context of coffee chain shops. Both consumer emotions and dedication-constraint mechanisms play important roles in the development of loyalty behaviors. However, most studies have focused on loyalty behaviors such as repurchase intentions, WOM, and recommendation. Furthermore, few studies have combined emotions and the dedication-constraint model. Our findings indicate that both emotions and the dedication-constraint model are essential predictors of loyalty behaviors in

the context of coffee chain shops. By demonstrating that constructs originating from prior emotions and the dedication-constraint model are critical determinants of loyalty behaviors, this study provides preliminary evidence that these two research disciplines could complement each other in developing a synergistic framework to investigate consumers' loyalty behaviors. Consumers' positive (but not negative) emotions and dedication-constraint mechanisms play important roles in forming brand loyalty and inducing a willingness to pay more. However, consumers' negative emotions negatively affect brand loyalty.

Second, this study clarifies the effects of emotional responses on loyalty behaviors in the context of coffee chain shops. Due to the complexity of the ambivalent view of emotions, most studies have focused on positive emotions. Contrariwise, this study fully captures the exact roles of both positive and negative consumer emotions in the development of loyalty behaviors in the context of coffee chain shops. According to the affective event theory, affective responses determine affect-driven behaviors such as recommendation and positive WOM [83]. Consistent with this theory, our findings indicate that both forms of emotional responses are critical predictors of loyalty behaviors in the context of coffee chain shops. Furthermore, our findings show that positive emotional responses have a stronger effect on loyalty behaviors than negative emotions have. Contrary to previous findings, this study has shown that consumers' positive emotions felt while using coffee chain services are a stronger antecedent of consumers' loyalty behavior processes than their negative emotions are.

Third, this study investigated the roles of affective and calculative commitments in loyalty behaviors in the context of coffee chain shops. Both affective and calculative commitments were found to have significant effects on loyalty behaviors. High affective commitment can produce some "stickiness" in loyalty behaviors such as repurchase intentions and WOM, while calculative commitment refers to the need to maintain a relationship in face of high switching costs. Jones et al. [20] reported that the effects of affective and calculative commitments on loyalty behaviors were stronger than were those of emotional responses. Our findings support the view that affective and calculative commitments have much stronger direct effects on loyalty behaviors than emotional responses have. Affective commitment is the strongest driver of positive emotional responses but is negatively related to negative emotional responses.

Contrariwise, calculative commitment has significant positive effects on positive emotions and loyalty behaviors and is also positively associated with negative emotions. Although some studies on calculative commitment found direct and positive effects on loyalty, Sharma, Young, and Wilkinson [84] pointed out the dual role of calculative commitment in decisions to stay with a current provider, as perceived lack of alternative options derived from negative calculative commitment, while positive calculative commitment derived from a rational calculation of the benefits of staying with a current service provider [85]. We found that calculative commitment has both positive and negative consequences in the coffee chain environment.

Fourth, this study provides an in-depth understanding of the key predictors of affective and calculative commitments in the coffee chain environment. We posited coffee quality, service quality, physical environments quality, and price fairness as vital enablers of affective and calculative commitments. The analysis results confirm the salience of these four enablers in the creation of affective and calculative commitment. Both service quality and physical environment quality have significant effects on affective and calculative commitment. Price fairness has significant effects on both affective and calculative commitment as well.

6.3. Implications for Practice

First, our study shows that practitioners should focus on users' emotional responses to enhance customers' loyalty behaviors. Affective responses provide supplementary information useful for elucidating customers' loyalty behaviors regarding coffee chain services. Service practitioners should maximize customers' positive emotional experiences while minimizing negative ones. Specifically, this study demonstrated the damaging effect of negative emotions on retailers' relationship with their users. Since deterrence emotions can evoke negative outcomes such as complaint behaviors and

spreading negative WOM, service providers should try to reduce the formation of negative emotions by detecting and removing any bugs or problems in their service and offering prompt assistance when problems occur. Service-recovery efforts can rebuild relationships with customers after negative experiences, eventually leading to long-term profitability. Therefore, coffee chain retailers should concentrate on providing satisfying and positive experiences to customers.

Second, our empirical investigation of the role of affective commitment and its antecedents in coffee chain retailing offers several practical implications for service practitioners and managers wishing to improve customers' loyalty behaviors. Service practitioners should focus on developing high levels of affective commitment to build long-term relationships with users. They should strive to offer higher levels of service quality, physical environment quality, and perceived price fairness to leverage the dedication-based mechanism. High customer perceptions of service quality, physical environment quality, and price fairness in a service provider enhance the formation of affective commitment, which in turn evokes positive emotions and ultimately enhances customers' loyalty behaviors. To enhance favorable user perceptions and facilitate relationship management, coffee chain retailers should offer high-quality services in terms of the coffee itself, customer service, the physical environment, and perceived price fairness. Our results suggest that perceived price fairness is the strongest factor in affective commitment. Therefore, coffee chain providers must enhance users' experiences by offering a variety of hedonic features such as unique emoticons, emojis, and social games. Doing so will increase trust in the service provider because it will offer coffee chain users more control over their personal information. For instance, some coffee chain providers offer users the option of changing their privacy settings. Such policies can enhance consumers' trust levels and mitigate their risk perceptions of coffee chain use.

Finally, understanding the role of calculative commitment can help service managers develop operations and marketing strategies. Service managers should carefully manage calculative commitment while forming their relationships with users. Calculative commitment causes users to stay with their current service provider. Although most studies on SM have concentrated on the positive effect of the constraint-based mechanism on loyalty behaviors, it can both evoke negative emotional responses and lead to positive consequences. Our findings confirmed the vital positive role of calculative commitment in generating negative and positive emotional responses. As calculative commitment is counterproductive, increasing users' perceptions of calculative commitment can negatively affect long-term relationships with users. Since users may perceive a negative calculative commitment due to a lack of alternative options, service practitioners should focus on promoting the utilitarian and hedonic benefits of staying with the current service provider. Social norms play an important role in generating calculative commitment. If users perceive that most of the people who are important to them think they should use a certain coffee chain, that coffee chain can lock them in. Marketers and practitioners can use social network analysis to find social influencers who use WOM to spread messages to their friends, colleagues, and social networks. The more influence the users have, the stronger appeal they have to other individuals seeking to adopt and use a particular coffee chain. Therefore, coffee chain practitioners should concentrate on managing this group and make general users develop calculative commitments because general users can provide effective favorable WOM.

7. Conclusions

Our results have clear managerial implications for service managers and practitioners. Several innovative coffee chain retailers have extended their market using mobile platforms. For example, Coffee Bean has evolved into a coffee platform-based business delivering various applications for franchisees and coffee chain retailers. It is critical that coffee chain retailers understand how to improve customers' loyalty behaviors.

Although our findings identified significant antecedents of loyalty behaviors in relation to coffee chain services, the study has several limitations. First, we selected Coffee Bean as the target coffee chain retailer for its representativeness and pervasiveness. Although most coffee chain retailers offer common services—such as real-time texting, voice communication, and photo sharing—they offer

different levels of service quality, physical environment quality, and price fairness. Although Coffee Bean is the largest coffee chain retailer in South Korea, future research should examine multiple coffee chain retailers to enhance the validity and generalizability of their results.

Second, although the coffee chain market has gained popularity across the world, we did not consider the effect of cultural attributes on loyalty behaviors. Several works on SM have demonstrated the important role of cultural attributes in customers' decision-making processes in several service contexts. Additional surveys should be conducted in other countries to identify the role of cultural factors in customers' loyalty behaviors. The results will be particularly useful for understanding the cultural diversity of customers and incorporating these differences into service operations and marketing campaigns.

Finally, this study collected data using a cross-sectional survey method and investigated the determinants of customers' loyalty behaviors at a static point. To provide more insight for service practitioners and managers, it will be valuable to capture changes in the effects of emotional responses, affective commitment, and calculative commitment on customers' loyalty behaviors from a dynamic perspective. Future research should apply a longitudinal survey method to track the dynamic roles of emotional responses, affective commitment, and calculative commitment in forming customers' loyalty behaviors in the context of coffee chain services.

Appendix A: List of Model Constructs and Items

Brand loyalty is derived from Yoo and Donthu [86].
BRL1: This brand is always my first choice.
BRL2: I consider myself to be loyal to this brand.
BRL3: I would recommend this brand to my friends or others.
BRL4: I encourage my friends or others to buy this brand.

Willingness to pay more is derived from Chaudhuri and Holbrook [52].
WPM1: Buying this brand seems smart to me even if they cost more.
WPM2: I'm ready to pay a higher price for this brand.
WPM3: I'd still buy this brand if other brands reduced their prices.

Positive emotion is derived from Jones et al. [20].
PEM1: Excited
PEM2: Thrilled
PEM3: Delighted

Negative emotion is derived from Jones et al. [20].
NEM1: Frustrated
NEM2: Angry
NEM3: Irritated

Affective commitment is derived from Jones et al. [20].
ACO1: I like this brand.
ACO2: I buy this brand because I really like it.
ACO3: I am a customer of this brand because I feel a strong sense of attachment to it.

Calculative commitment is derived from Jones et al. [20].
CCO1: I feel somewhat locked into buying this brand.
CCO2: I feel sort of stuck with this brand.
CCO3: Some aspects of my life would be affected if I stop buying this brand now.
CCO4: To stop buying this brand would require considerable personal sacrifice.

Coffee quality is derived from Chen and Hu [24].
COQ1: The quality of coffee at this brand is consistently high during each visit.
COQ2: This brand offers coffee with excellent freshness.
COQ3: This brand offers coffee with risk flavor
COQ4: This brand at this brand offers coffee with appropriate temperature.

Service quality is derived from Ryu et al. [68].
SEQ1: Employees at this brand serve me beverages exactly as I ordered it.
SEQ2: Employees at this brand provide prompt and quick service.
SEQ3: Employees at this brand are always willing to help me.
SEQ4: Employees at this brand make me feel comfortable in dealing with them.

Quality of physical environment is derived from Ryu et al. [68].
QPE1: The stores at this brand have a visually attractive interior design and decor.
QPE2: The stores at this brand have music and illumination appropriate for its atmosphere.
QPE3: The stores and equipment are thoroughly clean.
QPE4: Employees are neat and well dressed.

Price fairness is derived from Ryu and Lee [70].
PFA1: The coffee prices at this brand are fair.
PFA2: The beverage prices at this brand are fair.
PFA3: The price charged by this brand is appropriate.
PFA4: The price charged by this brand is rational.

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