

The Effect of the Gap between College Students' Perception of the Importance of Coffee Shops and Their Satisfaction after Patronizing Coffee Shops on Their Purchasing Behavior

大专院校学生对咖啡店重要性的感知和他们光顾咖啡店之后的满意度之间的差距对他们购买行为的影响

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Abstract

The purpose of this study was to categorize the gap between coffee shop 'importance' (as perceived by customers before patronizing the coffee shop) and 'satisfaction' (perception of customers after patronizing the coffee shop) as positive or negative and to analyze the effect of these gaps on purchasing behavior. To do this, I used the gap between importance and satisfaction regarding the choice of a coffee shop as the explanatory variable and performed an empirical analysis of the direction and size of the effect of the gap on purchasing behavior (overall satisfaction, willingness-to-revisit) by applying the Ordered Probit Model (OPM). A previous study that used IPA to evaluate the effects of gaps estimated the direction and size of a quadrant but failed to analyze the effect of gaps on customers. In this study, I evaluated the effects of positive and negative gaps on customer satisfaction and willingness-to-revisit. Using OPM, I quantified the effect of positive and negative gaps on overall customer satisfaction and willingness-to-revisit.

Per-head expenditure, frequency of visits, and coffee-purchasing place had the most positive effects on overall customer satisfaction. Frequency of visits, followed by per-head expenditure and then coffee-purchasing place, had the most positive impact on willingness-to-visit. Thus per-head expenditure and frequency of visits had the greatest positive effects on overall satisfaction and willingness-to-revisit. This finding implies that the higher the actual satisfaction (gap) of customers who spend KRW5,000 or more once or more per week at coffee shops is, the higher their overall satisfaction and willingness-to-revisit are. Despite the fact that economical efficiency had a significant effect on overall satisfaction and willingness-to-revisit, college and university students still use coffee shops and are willing to spend KRW5,000 because they do not only purchase coffee as a product itself, but use the coffee shop for other activities, such as working, meeting friends, or relaxing. College and university students also access the Internet in coffee shops via personal laptops, watch movies, and study; thus, coffee shops should provide their

customers with the appropriate facilities and services.

The fact that a positive gap for coffee shop brand had a positive effect on willingness-to-revisit implies that the higher the level of customer satisfaction, the greater the willingness-to-revisit. A negative gap for this factor, on the other hand, implies that the lower the level of customer satisfaction, the lower the willingness-to-revisit. Thus, the brand factor has a comparatively greater effect on satisfaction than the other factors evaluated in this study. Given that the domestic coffee culture is becoming more upscale and college/university students are sensitive to this trend, students are attentive to brands. In most upscale coffee shops in Korea, the outer wall is built out of glass that can be opened, the interiors are exotic with an open kitchen. These upscale coffee shops function as landmarks and match the taste of college/university students. Coffee shops in Korea have become a cultural brand. To make customers feel that coffee shops are upscale, good quality establishments and measures to provide better services in terms of brand factor should be instituted.

The intensified competition among coffee shop brands in Korea as a result of the booming industry indicates that provision of additional services is needed to differentiate competitors. These customers can also use a scanner free of charge. Another strategy that can be used to boost brands could be to provide and operate a seminar room for seminars and group study. If coffee shops adopt these types of strategies, college/university students would be more likely to consider the expenses they incur worthwhile and, subsequently, they would be more likely to be satisfied with the brands of these coffee shops, with an associated increase in their willingness-to-revisit.

Gender and study year had the most negative effects on overall satisfaction and willingness-to-revisit. Female students were more likely to be satisfied and be willing to return than male students, and third and fourth-year students were more likely to be satisfied and willing-to-return than first or second-year students. Students who drink coffee, read books, and use laptops alone at coffee shops are easily noticeable. High-grade students tend to visit coffee shops alone in order to use their time efficiently for self-development and to find jobs. The economical efficiency factor had the greatest effect on overall satisfaction and willingness-to-revisit in terms of a positive gap. The higher the actual satisfaction (gap) of

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students with the price of the coffee, the greater their overall satisfaction and willingness-to-revisit. Economical efficiency with a negative gap had a negative effect on willingness-to-revisit, which implies that a less negative gap will result in a greater willingness-to-revisit. Amid worsening market conditions, coffee shops located around colleges/universities are using strategies, such as a point or membership card, strategic alliances with credit-card companies, development of a set menu or seasonal menu, and free coffee-shot services to increase their competitive edge.

Product power also had a negative effect in terms of a negative gap, which indicates that a higher negative gap will result in a lower willingness-to-revisit. Because there are many more customers that enjoy coffee in this decade, as compared to previous decades, the new generation of customers, namely college/university students, want various menu items in addition to coffee, and coffee shops should, therefore, add side menu items, such as waffles, rice cakes, cakes, sandwiches, and salads. For example, Starbucks Korea is making efforts to enhance product power by selling rice cakes flavored in strawberry, wormwood, and pumpkin, and providing coffee or cream free of charge.

In summary, coffee shops should focus on increasing their economical efficiency, brand, and product power to enhance the satisfaction of college/university students. Because shops adjacent to colleges or universities enjoy a locational advantage, providing differentiated services in terms of economical efficiency, brand, and product power, is likely to increase customer satisfaction and return visits. Coffee shop brands should, therefore, be innovative and embrace change to meet their customers' desires. Because this study only targeted college/university students in Seoul, comparative studies targeting diverse regions and age groups are required to generalize the findings and recommendations of this study.

Keywords: Selection attributes, Purchasing behavior, Gap between importance and satisfaction, Ordered Probit Model (OPM), Satisfaction

摘要

本研究的目的是对咖啡店的“重要性”（顾客在光顾咖啡店以前的感知）和积极或消极的“满意度”（顾客在光顾咖啡店以后的感受）之间的差距进行分类，并分析这些差距对购买行为的影响。为此，我使用重要性和满意度之间的差距作为选择咖啡店的解释变量，并通过使用有序Probit模型（OPM）来实证分析差距对购买行为（整体满意度和愿意到再次光顾）的影响方向和大小。先前使用IPA的研究评估了差距影响的方向和大小的象限，但是在分析差距对顾客的影响方面却失败了。在本研究中，我评估了积极和消极的差距对顾客满意度和愿意去再光顾的影响。通过使用OPM，我量化了积极和消极的差距对顾客整体满意度和愿意去再光顾的影响。

每个人的支出，光顾的频率和购买咖啡的地方对顾客整体满意度有最积极的影响。光顾的频率，在每人的支出之后，然后是购买咖啡的地方对顾客整体满意度有最积极的影响。因此每个人的支出和光顾的频率对顾客整体满意度有最积极的影响。

这一发现意味着一个在咖啡店每次或每周花费5000韩元的顾客的实际的满意度越高（差距），其整体满意度和愿意去再光顾就越高。虽然经济效益对总体满意度和愿意去再光顾有显著影响，但是大专和大学的学生仍然愿意去咖啡馆并愿意消费5000韩元，因为他们不只是购买咖啡本身而且将咖啡店作为其他活动的场所，例如工作，和朋友见面或是放松的地方。学院和大学的学生还可以在咖啡店通过个人电脑上网，看电影，学习，因此，咖啡馆应对顾客提供适当的设施和服务。

咖啡店品牌的积极差距对愿意去再光顾有积极的影响表明顾客满意度越高，顾客越愿意去再光顾。另一方面，这一因素的消极差距意味着顾客满意度越低，顾客再光顾的意愿也越低。因此，在本研究中，与其他评估的因素相比，品牌因素对满意度有较大的影响。鉴于国内咖啡文化变得越来越高级，大专院校的学生对这一趋势也很敏感，所以学生有很多可选择的品牌。在韩国最高级的咖啡店，外墙是玻璃建造的并可以打开，内部是充满异国情调的开放式厨房。这些高级咖啡店作为标志的功能复合大专院校学生的品味。韩国咖啡店已成为一个文化品牌。从品牌因素来看，为了让顾客觉得这些咖啡店是高级的，高质量的设备和提供更好服务的措施应当建立起来。

韩国咖啡馆作为蓬勃发展的行业品牌竞争加剧的结果表明，提供与竞争对手不同的额外服务是有必要的。顾客可以免费使用扫描仪。另一个可以用来提高品牌的战略是提供和经营为集体学习而准备的讨论会议室。如果咖啡馆采取这些类型的策略，学院/大学的学生将更有可能认为他们承担的费用是值得的，随后，他们将可能更满足这些咖啡馆的品牌，并更愿意再次光顾。

性别和学习年数对总体满意度和再光顾的意愿有最消极的营销。女学生比男学生更容易满足和再光顾。三、四年级的学生比一、二年级的学生更容易满足和再光顾。喝咖啡的学生，单独在咖啡店看书，用笔记本电脑是很容易被注意到的。高年级学生为了有效地利用时间用于自我发展和寻找工作往往独自光顾咖啡店。从积极的差距来看，经济效率这一因素对总体满意度和愿意再光顾有最大的影响。与咖啡价格一起，学生实际满意度（差距）越高，总体满意度和再光顾的意愿也越高。有消极差距的经济效率队再光顾有消极营销的结果表明较小的消极差距可以让再光顾的意愿更高。在持续恶化的市场环境中，坐落在大专院校附近的咖啡店采取诸如积分或会员卡，和信用卡公司的战略联盟，发展套餐菜单或季节菜单和免费咖啡服务这些战略来提高竞争力。

就消极差距而言产品功率也有消极的影响，这表明较高的负差距会导致较低的再光顾的意愿。因为还有更多的客户比前几十年，在这十年里更喜欢咖啡，新一代的客户，即学院/大学的学生，希望除了咖啡还有更重菜单项目。因此，咖啡店应当增加配菜项目，如华夫饼，糕，蛋糕，三明治和沙拉。例如，星巴克韩国正在努力加强卖草莓糕，艾草香味，南瓜产品，并提供免费的咖啡或奶油。

总而言之，咖啡馆应注重提高其经济效率，品牌和产品功率，以加强大专院校学生的满意度。由于店铺毗邻学大专院校可享受地缘优势，就经济效率，品牌和产品功率而言提供不同的服务，很可能会提高客户满意度和回访。咖啡厅的品牌，因此，应不断创新和变化，以满足顾客的愿望。由于这项研究只是针对在首尔的大专院校的学生，需要针对不同地区和年龄组的比较研究来概括本研究的结果和建议。

关键词：选择属性，购买行为，重要性和满意度之间的差距，有序模型(OPM)，满意度

I. Introduction

Notwithstanding the slump in the Korean food service industry in recent years, the coffee shop market has been exhibiting growth, and major retailers reported an increase in revenues by 40% or more, as compared to YR2007. 'Starbucks' recorded sales revenues of KRW134.4 bil. in 2007 and KRW160 bil. in 2008. The revenues of 'Hollys Coffee' jumped by 48.1% in 2008 to KRW67.1 bil. from KRW45 bil. in 2007; this coffee shop opened up 50 additional branches in 2008, and now has 183 branches total. 'Angelinus' also showed revenue growth in 2008, reporting revenues of KRW65 bil. in 2008, compared to KRW33 bil. in 2007. 'Coffee Bean' recorded 2007 revenues of KRW35 bil, and 'Tom N Toms' showed growth in revenues from KRW18 bil. in 2007 to KRW36 bil. in 2008 (Food Bank, 2009). In contrast to the past, customers are now consuming more coffee of better quality, and coffee shops are, therefore, trying to capitalize on this shift to emphasis on the quality of the coffee to attract customers. With the coffee shop market saturated, brands that do not have a differentiated business strategy or those that have a weak profit structure are not surviving. Hence, to meet customers' demands, the utmost efforts should be exerted to provide customers with various products and services (Kim, Kim, and Shin, 2003). Amid fiercer competition among coffee shops, providing customers with excellent quality coffee is essential to enhance customer satisfaction and repurchase intention (Park and Yoon, 2006). Furthermore, it would be useful to evaluate customers' expectations before using the coffee shop and their satisfaction after using the coffee shop. Coffee shops, thus, need to develop marketing strategies to sharpen their competitive edge, develop systematic business activities, and analyze customers' selection attributes (Kim, 2003).

Because the selection attributes of customers with changing appetites have a direct influence on purchasing behavior, identifying the selection attributes that affect customer satisfaction and provide customers with better-than-expected service is crucial in a bid to secure competitive superiority and satisfy customers. A study by Jung and Young (2006) demonstrated that human service factors and coffee quality affected customer satisfaction and that coffee shop satisfaction factors affected recommendation intention and willingness-to-revisit. Several studies have investigated coffee shop satisfaction and willingness-to-revisit (Kim, Lee, and Ro, 2007; Kim, Kim, and Park, 2006; Kim, 2003; Jung, 2006). However, studies that quantify the difference between perceived customer importance of the coffee shop and customer satisfaction after patronizing the coffee shops are needed, given that consumption patterns have diversified and profound social and economic changes have occurred in South Korea in the last decade. These days, college and university students are using coffee shops not only as coffee-serving shops but also as cultural places where they can read books, use the Internet, perform tasks, and foster friend-

ships, among others. Customers' attitudes towards coffee shops and their willingness-to-revisit are decided based on the difference in their attitudes before using the coffee shops and the level of satisfaction/dissatisfaction they experience after using the coffee shops (Oliver, 1980). In this study, I targeted college and university students because of the large changes in the consumption patterns of students.

Importance Performance Analysis (IPA) has been used in the past to quantify the gap between perceived importance and satisfaction (Lee and Han, 2005), but the results obtained have been unsatisfactory. Therefore, I extended research into gap theory in relation to customers' purchasing behavior (overall satisfaction, willingness-to-revisit) to determine the effects of positive negative gaps on the purchasing behavior of college and university students. The purpose of this study was to characterize the gap between coffee shop importance, as perceived by customers before using the coffee shop, and the satisfaction they felt after using the shop as a positive or negative gap, and to analyze the effect of these gaps on purchasing behavior (overall satisfaction and willingness-to-revisit). In order to do this, I used the gap, as defined above, as the explanatory variable and performed an empirical analysis of the effect (direction and size) of the gap on customer purchasing behavior by using an Ordered Probit Model (OPM).

II. Theoretical Background

2.1. Coffee Shop Selection Attributes

In this study, selection attributes are defined as the factors that college/university students use to decide which coffee shop to patronize. Kim (2003) demonstrated that the factors of 'reliability (a varied menu, the taste of the coffee, the quality of the coffee, the freshness of the coffee, and the price of the coffee)' and 'kindness (rapid response of coffee shop staff, decent appearance of the staff, and kindness of the staff)' among five factors-type, cleanliness, reliability, kindness, and trustworthiness-were crucial in a customer's decision whether to revisit a coffee shop. In particular, students considered 'reliability' to be the most important factor when choosing coffee shops. Jung and Yong (2006) surveyed the coffee shop market and analyzed how each coffee shop brand is recognized by customers using a positioning map. By using the selection attributes used to evaluate and select food service industry branches as the selection attributes for coffee shops, Jeong defined eight coffee shop attributes: taste of the coffee, diversity of the menu, value of the coffee in terms of price, coffee shop atmosphere, level of staff service, convenience, brand preference, and interior design. The overall conclusion of this study was that, as a coffee shop, securing brand identity is important in order to have a competitive advantage.

Kim, Lee, and Ro (2007) surveyed the factors that affect customer loyalty and chose taste/quality of the coffee, level of service, atmosphere, location of the coffee shop, and brand

recognition as selection attributes. They concluded that when customers are not satisfied with the taste of the coffee and the service, customer loyalty in terms of recommendation intention and willingness-to-revisit will not increase even if the customers are satisfied with the other factors. Kim, Kim, and Park (2006) used a conjoint analysis method based on group interviews with experts to determine selection attributes. During this process, selection attributes, such as brand name, price, coffee type, and characteristics of a shop, were chosen, and attribute sub-categories were defined based on the characteristics of coffee shops. Four shop characteristic sub-categories were defined: easy accessibility, kind service, a clean shop, and convenient chairs.

Shin and Chung (2007) analyzed the importance of the quality of coffee by focusing on customers according to product consumption types, such as through a vending machine, at a market, and at a coffee shop. The quality attributes were taste, quantity, aroma, price, nutrition, sanitation, color, temperature, function, safety, seasonal fitness, freshness, ability to quench thirst, list of ingredients, circulation period, packaging condition, shape of packaging material, brand, and name of the product. The taste of the coffee was the most important attribute, while attributes requiring improvement were price and circulation period.

In this study, I selected the taste of the coffee, the coffee menu, price, the level of staff service, the visual attractiveness of the coffee shop building, and the coffee shop brand image as variables based on the studies discussed above.

2.2. Negative and Positive Gaps between Importance and Satisfaction

The gap between 'importance', which refers to how customers perceive the coffee shop before patronizing it, and 'satisfaction', which refers to how satisfied customers feel after patronizing the coffee shop, was classified as positive or negative. According to Oliver (1980), customers have expectations of the performance of products before purchasing them and evaluate their actual performance after using them; the gap between their expectations and the actual performance determines the level of customer satisfaction. A positive gap arises when the actual performance is better than the anticipated performance; a negative gap arises when the actual performance is poorer than the anticipated performance (Chun and Kim, 2004, Cited Oliver).

The gap between the customers' expectations and their actual experience is very important; if the actual performance is more desirable than expectations, customer satisfaction, trust, attitude, and willingness-to-purchase increases. However, if performance is less desirable than expected, customer satisfaction decreases, and customer willingness-to-purchase decreases (Devlin, Gwynne and Ennew, 2002, Peter and Jan, 1994), causing customers to seek out alternative products or services. Customer Satisfaction is the emotion or attitude of customer

who use the product & experience the service, and is the major output of marketing activities which connected to various purchasing phase. (Lee, Lee, and Kim, 2004).

Kim et al. (2007) provided recommendations for appropriate services using the gap paradigm for the food service section of a hotel. Yoo et al. (2006) targeted customers of a hotel restaurant and family restaurant to determine the effect of expectations on recovery after failed service and the effect of perceived justice on the expectation gap, showing that the expectation gap had a significant, positive effect on customer satisfaction. Yoon and Park (2003) investigated the effects of negative and positive gaps between car ownership satisfaction and repurchase behavior, and determined that a negative expectation gap had a greater influence on overall satisfaction and willingness-to-repurchase than a positive expectation gap. So and Yoo (2007) pointed out that the gap between anticipated and actual performance is the most important variable affecting customer expectation.

A study by Lee and Han (2005) that applied IPA in the past to determine the gap between anticipated performance and satisfaction only reported the direction and size at quadrants and failed to analyze the effect of gaps on customer behavior, thus, an empirical investigation of the effect of the gap between perceived and actual performance is required.

Lee and Han (2005) estimated the service quality of an exhibition using IPA, categorized the gap between perceived importance and performance as positive, negative, or overall, and then analyzed the effect of the various gap types on visitor behavior (satisfaction, willingness-to-revisit, and word-of-mouth intention). Providing information about the service quality of the exhibition was found to be important, and the larger the gap was, the lower the visitors' satisfaction, willingness-to-revisit, and word-of-mouth intentions. Seo, Jin-woo, and Lee (2007) categorized service quality gaps between importance and satisfaction as positive, negative, or net change gaps, and the direction and size of importance and satisfaction relating to overall satisfaction, willingness-to-revisit, and recommendation intention were estimated. Negative and positive service factor gaps rather than food factors had positive and negative effects on purchase behavior, respectively. So and Yoo (2007) performed an empirical analysis of the effect of the gap between expected service quality and participation motivation and actual service quality and participation motivation on satisfaction, recommendation intention, and consumption & expenditure, and determined the relevancy of these factors. These authors found that both negative and positive gaps had a significant effect on the behavior of visitors to an exhibition.

III. Study Design

3.1. Data

The data used for this analysis were collected through a 2-week survey conducted from Oct 9, 2007 to Oct 22, 2007.

College and university students living in Seoul with prior patronage of take-out coffee shops were targeted. A total of 420 survey sheets were collected of which 395 surveys were used for the analysis. The survey sheet contained questions assessing demographic variables, consumption characteristics, coffee shop selection attributes, and purchasing behavior (overall satisfaction, willingness-to-revisit). In terms of the coffee shop selection attributes, the items proposed by Kim (2003), Kim, Lee, and Ro (2007), and Kim, Kim, and Park (2006) were used, and 14 items rated using a Likert 5-point scale were included in the survey questionnaire.

To estimate the size of the gap between perception of the performance of the coffee shop and actual satisfaction, and the relationship of this gap to coffee shop selection attributes, I determined the difference between expectations before visiting the coffee shop and satisfaction after visiting the coffee shop, and defined a new variable, 'gap.' Descriptive statistics relating to this gap variable, which was calculated by subtracting expectations from satisfaction, and the importance and satisfaction

of coffee shop selection attributes are shown in <Table 1>. Paired-sample t-tests were used for statistical analyses.

3.2. Analyses and Procedures

Descriptive statistics were used to describe the data, SPSS 12.0 was used for reliability analysis, and the effects of negative or positive gaps for coffee shop selection attributes on purchasing behavior were analyzed using OPM.

The previous study that used IPA verified the gap between importance and satisfaction using paired sample t-tests, performed an exploratory factor analysis of the importance, and used the factors determined using the above-mentioned method to determine importance without using verification procedures, thereby failing to accurately quantify the gap. Therefore, in this study, the differences between importance and satisfaction and the exploratory power of the new gap variables were investigated. The variable 'gap' was calculated by subtracting importance from satisfaction; this variable was not directly reported by surveyees.

As I mentioned before, the study which applied IPA only provided the direction and size of a quadrant, but failed to analyze the effect of gaps on customer behavior (Lee and Han, 2005). I extended the scope of gap theory in this study, and determined the effect of positive and negative gaps on customer satisfaction and willingness-to-revisit. OPM can be used when the dependent variable is a serial polychotomous variable such as the Likert scale. I used OPM, as this model can address (Lee and Han, 2005) the disadvantages of IPA (Joo, 2000), which can seriously miscalculate the value effect of explanatory variables when the dependent variable is in the ordinal scale in case of linear regression analysis. Overall satisfaction and willingness-to-revisit were estimated as dependent variables using the 5-point Likert scale, which is a serial polychotomous variable (0, 1, 2).

IV. Empirical Analysis

4.1. Demographic Characteristics and Consumption Details of the Sample

More female students (216, 54.7%) than male students (179, 45.3%) were surveyed. A total of 85 first year students (21.5%), 115 second year students (29.1%), 111 third year students (28.1%), and 84 fourth year students (21.3%) were surveyed. In terms of pocket money, 211 respondents (53.4%) received pocket money of 'KRW300,000~590,000', 94 respondents (23.8%) received 'KRW300,000 or less', 66 respondents (16.7%) received 'KRW600,000~890,000', and 24 respondents (6.1%) received 'KRW900,000 or more'. In relation to companion status, 252 respondents (63.8%) reported that their companions were friends/junior & seniors. Most respondents (194 people; 49.1%) visited coffee shops 2~8 times per month

Table 1. Descriptive statistics and paired-sample t-test results.

Item	Importance		Satisfaction	
	Avg. (Standard deviation)	Ranking	Avg. (Standard deviation)	Ranking
Coffee taste	4.24(0.92)	1	3.78(0.80)	1
Varied coffee menu	3.60(1.06)	11	3.61(0.83)	4
Taste and diversity of bakery items and other beverages	3.49(1.06)	12	3.38(0.87)	7
Coffee price	4.11(0.94)	2	2.64(1.11)	13
Rapid service	3.95(0.91)	4	3.41(0.84)	8
Decent staff appearance (Cleanness)	3.71(1.00)	8	3.44(0.80)	6
Kindness of staff	4.09(0.92)	3	3.53(0.84)	5
Strategic alliance with other card companies	3.92(1.00)	5	3.28(0.93)	11
Point system or membership card	3.92(1.01)	6	3.30(0.89)	9
Various thank-you events e.g., discounts or special products	3.70(1.08)	9	2.97(0.91)	12
Visual attractiveness of building	3.35(1.07)	13	3.29(1.88)	10
Brand recognition	3.63(1.02)	10	3.65(0.91)	2
Brand image	3.75(0.97)	7	3.64(0.88)	3
Item	Gap (Satisfaction-Importance)		Paired t-test	
	Avg. (Standard deviation)	Ranking	t	p
Coffee taste	-0.46(0.86)	7	10.557	0.000*
Varied coffee menu	0.01(1.03)	2	-0.098	0.922
Taste and diversity of bakery items and other beverages	-0.11(1.11)	5	1.987	0.048**
Coffee price	-1.47(1.54)	13	18.919	0.000*
Rapid service	-0.54(1.09)	8	9.790	0.000*
Decent staff appearance (Cleanness)	-0.27(1.06)	6	5.116	0.000*
Kindness of staff	-0.56(0.99)	9	11.291	0.000*
Strategic alliance with other card companies	-0.65(1.19)	11	10.784	0.000*
Point system or membership card	-0.61(1.13)	10	10.747	0.000*
Various thank-you events e.g., discounts or special products	-0.73(1.27)	12	11.405	0.000*
Visual attractiveness of building	-0.06(1.12)	3	1.170	0.243
Brand recognition	0.02(0.96)	1	-0.418	0.676
Brand image	-0.11(0.92)	4	2.393	0.017**

Note: * p < 0.05, ** p < 0.01

while 145 respondents(36.7%) only visited a coffee shop once per month. Other demographic characteristics and consumption details are shown below in <Table 2>.

Table 2. Demographic and consumption characteristics (n=395).

Category		Number of respondents(%)
Gender	Male	179(45.3)
	Female	216(54.7)
Grade	1st	179(45.3)
	2nd	115(29.1)
	3rd	111(28.1)
	4th	84(21.3)
Pocket money	KRW300,000 or less	94(23.8)
	KRW300,000-590,000	211(53.4)
	KRW600,000-890,000	66(16.7)
	KRW900,000 or more	24(6.1)
Expenditure (Per visit)	KRW3,999 or below	51(12.9)
	KRW4,000-4,999	147(37.2)
	KRW5,000-5,999	118(29.9)
	KRW6,000 or more	79(20.0)
Frequency (Monthly avg.)	once	145(36.7)
	2-8 times	194(49.1)
	9-15 times	39(9.9)
	16 times or more	17(4.3)
Companion	Alone	31(7.8)
	Friends/Junior & senior	252(63.8)
	Lover	99(25.1)
	Others	13(3.3)

To determine the validity of the 14 items used to evaluate the coffee shop selection attributes, I conducted an exploratory factor analysis using the gap between importance and satisfaction as a variable. To clarify factors, I used orthogonal rotation based on principal component analysis, and used factors whose Eigen values were 1.0 or higher. I used a

Table 3. Factor analysis using the gap between importance and satisfaction as the explanatory variable.

Title of the factor (Cronbach's α)	Variable	Factor Load	.853
Factor 1. Economical efficiency ($\alpha = .759$)	Points or membership card	.853	26.830 (3.488)
	Strategic alliance with other card companies	.839	
	Various thank-you events e.g., discounts and special products	.756	
	Coffee price	.523	
Factor 2. Human service ($\alpha = .694$)	Decent appearance of staff (Cleanness)	.775	13.574 (1.765)
	Kindness of staff	.751	
	Rapid response of staff	.694	
Factor 3. Brand ($\alpha = .647$)	Brand image	.825	10.928 (1.421)
	Brand recognition	.814	
	Visual attractiveness of building	.509	
Factor 4. Product power ($\alpha = .662$)	Varied coffee menu	.798	9.345 (1.215)
	Variety and taste of bakery items and other beverages	.730	
	Coffee taste	.657	

Note: The accumulated explanatory dispersion by factors was 60.677%.

Kaiser-Meyer-Olkin figure to determine that the suitability of the sample was .750, which indicates an appropriate sample for fact analysis, and Bartlett's Test value was 1228.071, indicating satisfactory sample suitability. To determine the internal consistency of each factor, I adopted only the 13 items whose validity and reliability were recognized through Cronbach's α , excluding 1 item. <Table 3> shows the results of factor analysis using the gap between importance and satisfaction.

The four significant coffee shop selection attributes were economical efficiency (Factor 1), service quality (Factor 2), brand (Factor 3), and product power (Factor 4). Cronbach's α for these factors ranged between .647 and .759.

4.2. Results of OPM Analysis

By applying OPM to the data, I assessed the effect of coffee shop selection attributes and individual characteristics on the overall satisfaction and willingness-to-revisit. Explanations and descriptive statistics used to estimate these factors are shown in <Table 4>. The dummy variable LGRADE (grade) was used to categorize 1st and 2nd grade students as lower grade students. The reason why HCOST (expenditure per person per coffee shop) was KRW5,000 or more was that average coffee price was between KRW2,000 and 3,000, and a cup of coffee at a high-quality coffee shop was between KRW4,000~5,000(Seoul Daily, Jan 14, 2008). As to FRI (companion), college and university students normally visit coffee shops with their friends or partners, so I designated 'friends and partners' a standard variable.

To determine the direction of the importance-satisfaction gap according to factors, I calculated the gap by subtracting importance from satisfaction. Positive gaps were calculated by summing up the gaps for each factor whose value was plus(+), and negative gaps were calculated by summing all gaps with negative(-) values. The effects of positive and negative gaps and individual characteristics on purchasing behavior (overall satisfaction, willingness-to-revisit) are shown below in <Table 5>.

Gender and expenditure per person had a negative and a positive effect on overall satisfaction, respectively(1% significance level). The coffee-purchasing place and the frequency of using coffee shops had a positive effect on overall satisfaction at the 5% significance level, while grade had a negative effect on overall satisfaction(10% level). Economical efficiency had a greater on overall satisfaction than the other factors (1% significance level). Brand had a negative effect on overall satisfaction (5% significance level).

Gender and grade had negative effects on willingness-to-revisit at the 1% and 10% significance levels, respectively, and per-head expenditure and coffee-purchasing place had positive effects on willingness-to-revisit at the 5% significance level. Of the gap factors, positive and negative gap values for economical efficiency had a greater effect on

Table 4. Explanations of the variables and descriptive statistics.

	Variable	Explanation	Avg. (standard deviation)	
Individual characteristics variables	AGE(Age)	Age	21.98	2.56
	GEN(Gender)	Male=1, others=0	0.45	0.50
	LGRADE(Grade)	Low grade(1st , 2nd)=1, others=0	0.51	0.50
	FRI(Companion)	Friends/partners=1, others=0	0.64	0.48
	HPMO(Pocket money)	KRW500,000 or more=1, others=0	0.32	0.47
	HOCOST(Per-head expenditure)	KRW5,000 or more=1, others=0	0.50	0.50
	REPORT(Purpose)	5-point Likert scale	2.47	1.18
	PLACE (Coffee-purchasing place)	5-point Likert scale	2.61	1.05
	HNATTE(Frequency)	Once per week or more=1, others=0	0.19	0.39
Positive Gap (Factor)	POS11 (Economic efficiency)	Factor score	0.53	1.34
	POS12(Human service)	Factor score	0.53	1.01
	POS13(Brand)	Factor score	0.77	1.25
	POS14(Product power)	Factor score	0.90	1.19
Negative Gap (Factor)	NEGA1(Economic efficiency)	Factor score	3.98	3.32
	NEGA2(Human service)	Factor score	1.91	1.95
	NEGA3(Brand)	Factor score	1.33	1.52
	NEGA4(Product power)	Factor score	1.05	1.30
Defendant variable	SATIS(Overall satisfaction)	5-point Likert scale	2.46	0.85
	REVIS(Willingness-to-revisit)	5-point Likert scale	2.61	0.98

Note: The negative Gap is shown as an absolute value.

willingness-to-revisit than the other factors, and positive and negative brand factor gaps values had positive and negative effects on willingness-to-revisit at the 10% and 1% significance levels, respectively. Similar to the economical efficiency and brand factors, marketing strategies should embrace both positive and negative factors when purchasing behavior is affected bilaterally, (Lee and Han, 2005). Product power had a negative effect at the 10% significance level.

I evaluated the effect of the gap between importance and satisfaction on purchasing behavior (overall satisfaction, willingness-to-revisit) at coffee shops using size and signs. In terms of individual characteristics, per-head expenditure, frequency of visits, and coffee-purchasing place had positive effects on overall satisfaction in the order in which they are listed, while frequency of visits, per-head expenditure, and coffee-purchasing place had positive effects on willingness-to-revisit in the order that these factors are listed. In other words, per-head expenditure and frequency of visits had the greatest positive effects on overall satisfaction and willingness-to-revisit. Furthermore, gender followed by grade had a negative effect on overall satisfaction and willingness-to-revisit.

In terms of positive gaps, economical efficiency had the greatest positive effect on overall satisfaction and willingness-to-revisit, while brand had the greatest effect on overall satisfaction and willingness-to-revisit in terms of negative gaps. These findings imply that the greater the positive gap for economical efficiency is, the higher the overall customer satisfaction and willingness-to-revisit is, and the more negative gap the brand factor is, the lower the overall customer satisfaction and willingness-to-revisit.

Table 5. Effects of various variables and positive and negative gaps on purchasing behavior(OPM).

Variable	Overall satisfaction		Willingness-to-revisit		
	Figure	t-value	Figure	t-value	
Individual Characteristics	Age	-0.0071	-0.223	-0.0024	-0.075
	Gender	-0.4156	-3.011***	-0.5159	-3.773***
	Grade	-0.2820	-1.935*	-0.2713	-1.878*
	Frequency	0.3163	2.014**	0.5653	3.582***
Positive Gap	Economical efficiency	0.1258	2.612***	0.1358	2.828***
	Human service	-0.0297	-0.477	0.0148	0.238
	Brand	0.0163	0.322	0.0836	1.669*
Negative Gap	Product power	0.0728	1.460	0.0709	1.423
	Economical efficiency	0.0147	0.720	-0.0418	-2.046**
	Human service	-0.0329	-0.929	-0.0213	-0.608
	Brand	-0.0881	-2.084**	-0.1202	-2.858***
Product power	-0.0431	-0.945	-0.0868	-1.924*	
constant	2.147	2.854***	1.938	2.608***	
Log-Likelihood	-452.47		-492.85		
Rest. Log-likelihood	-492.15		-534.17		
Chi-square	79.36<0.000		86.63(p<0.000)		
No of Obs.	395		395		

* p < 0.1, ** p < 0.05, *** p < 0.01

V. Conclusions and Implications

The purpose of this study was to categorize the gap between coffee shop 'importance' (as perceived by customers before patronizing the coffee shop) and 'satisfaction' (perception of customers after patronizing the coffee shop) as positive or negative and to analyze the effect of these gaps on purchasing behavior. To do this, I used the gap between importance and satisfaction regarding the choice of a coffee shop as the explanatory variable and performed an empirical analysis of the direction and size of the effect of the gap on purchasing behavior (overall satisfaction, willingness-to-revisit) by applying the Ordered Probit Model (OPM). A previous study that used IPA to evaluate the effects of gaps estimated the direction and size of a quadrant but failed to analyze the effect of gaps on customers. In this study, I evaluated the effects of positive and negative gaps on customer satisfaction and willingness-to-revisit. Using OPM, I quantified the effect of positive and negative gaps on overall customer satisfaction and willingness-to-revisit.

Satisfying customers can result in competitive superiority and increase customer affection, which can lead to positive word-of-mouth intentions. Determining which factors affect customer satisfaction is the central aim of market research by service providers (Jang, 2006).

Per-head expenditure, frequency of visits, and coffee-purchasing place had the most positive effects on overall customer satisfaction. Frequency of visits, followed by per-head expenditure and then coffee-purchasing place, had the most positive impact on willingness-to-revisit. Thus per-head expenditure and frequency of visits had the greatest positive effects on overall satisfaction and willingness-to-revisit. This finding implies that the higher the actual satisfaction (gap) of customers who spend KRW5,000 or more once or more per week at coffee

fee shops is, the higher their overall satisfaction and willingness-to-revisit are. Despite the fact that economical efficiency had a significant effect on overall satisfaction and willingness-to-revisit, college and university students still use coffee shops and are willing to spend KRW5,000 because they do not only purchase coffee as a product itself, but use the coffee shop for other activities, such as working, meeting friends, or relaxing. Chosun Ilbo (Feb 24, 2009) reported that students who live off campus visit so-called 'Coffices (Coffee + office)' in the morning when they arrive and in the evening before they depart. They visit coffee shops to drink coffee and also to study and work. College and university students also access the Internet in coffee shops via personal laptops, watch movies, and study; thus, coffee shops should provide their customers with the appropriate facilities and services. For example, laptops, printers, and books should be provided, as should wireless LAN networks and wall sockets, free refills of Americano coffee, and free snacks. Coffee shops should also develop strategies to make the environment suitable for conversation groups and study by providing discount systems and tables.

The fact that a positive gap for coffee shop brand had a positive effect on willingness-to-revisit implies that the higher the level of customer satisfaction, the greater the willingness-to-revisit. A negative gap for this factor, on the other hand, implies that the lower the level of customer satisfaction, the lower the willingness-to-revisit. Thus, the brand factor has a comparatively greater effect on satisfaction than the other factors evaluated in this study. Given that the domestic coffee culture is becoming more upscale and college/university students are sensitive to this trend, students are attentive to brands. In most upscale coffee shops in Korea, the outer wall is built out of glass that can be opened, the interiors are exotic with an open kitchen. These upscale coffee shops function as landmarks and match the taste of college/university students. Coffee shops in Korea have become a cultural brand. To make customers feel that coffee shops are upscale, good quality establishments and measures to provide better services in terms of brand factor should be instituted. This finding is consistent with that of Kang et al. (2004) that improving customer satisfaction through brand image management resulted in customer repurchase and an overall positive response.

The intensified competition among coffee shop brands in Korea as a result of the booming industry indicates that provision of additional services is needed to differentiate competitors. For example, a certain branch of the Coffee Bean houses a library, called the 'Modern Art Library,' that has 3,000 plus books that can be read by customers who have membership or who purchase one or more beverages. These customers can also use a scanner free of charge. Another strategy that can be used to boost brands could be to provide and operate a seminar room for seminars and group study. If coffee shops adopt these types of strategies, college/university students would be more likely to consider the expenses they incur worthwhile and, subsequently, they would be more likely

to be satisfied with the brands of these coffee shops, with an associated increase in their willingness-to-revisit.

Gender and study year had the most negative effects on overall satisfaction and willingness-to-revisit. Female students were more likely to be satisfied and be willing to return than male students, and third and fourth-year students were more likely to be satisfied and willing-to-return than first or second-year students. Students who drink coffee, read books, and use laptops alone at coffee shops are easily noticeable. High-grade students tend to visit coffee shops alone in order to use their time efficiently for self-development and to find jobs. The economical efficiency factor had the greatest effect on overall satisfaction and willingness-to-revisit in terms of a positive gap. The higher the actual satisfaction (gap) of students with the price of the coffee, the greater their overall satisfaction and willingness-to-revisit. Economical efficiency with a negative gap had a negative effect on willingness-to-revisit, which implies that a less negative gap will result in a greater willingness-to-revisit. Amid worsening market conditions, coffee shops located around colleges/universities are using strategies, such as a point or membership card, strategic alliances with credit-card companies, development of a set menu or seasonal menu, and free coffee-shot services to increase their competitive edge. Jung (2006) speculated that increases in coffee sales under the current price structure of coffee shops are unlikely and that diverse strategies, such as coffee price reduction, are required to increase profit. This is consistent with my finding that economical efficiency had a substantial effect on overall satisfaction and willingness-to-revisit.

Product power also had a negative effect in terms of a negative gap, which indicates that a higher negative gap will result in a lower willingness-to-revisit. Because there are many more customers that enjoy coffee in this decade, as compared to previous decades, the new generation of customers, namely college/university students, want various menu items in addition to coffee, and coffee shops should, therefore, add side menu items, such as waffles, rice cakes, cakes, sandwiches, and salads. For example, Starbucks Korea is making efforts to enhance product power by selling rice cakes flavored in strawberry, wormwood, and pumpkin, and providing coffee or cream free of charge. These days, customers are showing more diverse, unique, and advanced needs, and drastic changes in the business environment in this era of free competition allow customers themselves to choose service providers, which has increased research interest in customer satisfaction (Chung and Jang, 2003). In summary, coffee shops should focus on increasing their economical efficiency, brand, and product power to enhance the satisfaction of college/university students. Because shops adjacent to colleges or universities enjoy a locational advantage, providing differentiated services in terms of economical efficiency, brand, and product power, is likely to increase customer satisfaction and return visits. Coffee shop brands should, therefore, be innovative and embrace change to meet their customers' desires. Because this study only targeted college/university students in Seoul, comparative studies target-

ing diverse regions and age groups are required to generalize the findings and recommendations of this study.

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