

CONSUMER PERCEPTION AND BEHAVIORAL INTENTION OF CONVENIENCE STORE'S POINT COLLECTING

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ABSTRACT

Recently, the convenience stores in Taiwan have provided smart marketing program: Point Collecting Service by APP. This paper examines the key factor for consumers' behavior intention towards the reception of the APP service. The study uses Structured Equation Modeling (SEM) to analyze users the relationships between the service quality, service value, switching costs and behavior intention. First, confirmatory factor analysis (CFA) was performed to determine whether the measured variables reliably reflected the hypothesized latent variables. Second, structural models were tested to determine overall model fit and path coefficients. Finally, we discuss the advantage of the APP service by the Important-Performance Analysis. The study's findings show that the proposed model has good explanatory power and confirms its robustness in predicting customers' intention to use convenience store's point collecting APP service.

KEYWORDS: Behavior Intention, Service Quality, Structural Equation Modeling

Article History

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INTRODUCTION

In the past, many companies focused on improving consumer satisfaction, hoping to improve consumer satisfaction by providing better services to achieve business profitability goals, but with more and more standardization of services between enterprises, the promotion of satisfaction is no longer a guarantee of profit-making enterprises. Customer loyalty program is a very important marketing strategy among the largest number of convenience stores in Taiwan to compete. Therefore, the point collecting program is the most common promotional strategy for the convenience stores in Taiwan. In order to provide a more innovative service experience, Family Mart combined with information technology to launch the APP for point collecting activities to optimize point collecting program and service.

The emergence of APP technology provides consumers with a completely novel approach for the convenience store's marketing program, and the quality of service performance is an important key factor to create customer satisfaction. In the past decade, there have been many researchers published about the theoretical domain of service quality. However, there are a lacks of research on e-service quality for the point collecting marketing program in APP environment. In this paper, we explore the relationship between service quality, service, value, switching costs and behavior intention using by Confirmatory Factor Analysis (CFA), Structural Equation Modeling (SEM) and Importance Performance Analysis (IPA).

LITERATURE REVIEW AND RESEARCH MODEL

Choice behavior can be characterized by a decision process, which is informed by perceptions and beliefs based on available information, and influenced by effect, attitudes, motives, and preferences. Thus the behavioral intention is the most important indicator of the choice behavior. Previous researchers focused on the cause and effect relationships between service quality, perceived value, switching cost and behavioral intention. Those constructs will be defined and described in the following. Behavioral intention (BI) is defined as a person's perceived likelihood or "subjective probability that he or she will engage in a given behavior" (Homburg, Hoyer, & Koschate, 2005). Behavioral intention can be considered the indicator that researchers use most frequently to analyze choice behavior. Wang (2010) asserted that consumer attitude toward specific products or services is based on an individual's previous experiences. Subsequently, the consumer attitude toward products and services influences their purchasing intention. Zeithaml (1988) proposed the definition of perceived value which is the consumer's overall assessment of the utility of a product based on the perceptions of what is received and what is given. Zeithaml follows the exploratory study to group the perceived value into four consumer definitions of value: (1) value is low price, (2) value is whatever I want in a product, (3) value is the quality I get for the price I pay, and (4) value is what I get for what I give. In short, the value represented a trade-off between giving (price) and get (quality) components and it also provides a comparison of benefits and sacrifices. Bolton and James (1991) followed Zeithaml's (1988) concept of perceived value to define perceived value is a function of service quality, sacrifice, and customer characteristics. Because the monetary and nonmonetary cost, customer preference and past experiences, the evaluation of perceived value from customers is different to each other. Switching costs refer to the buyer's perceived costs of switching from the existing to a new supplier (Heide and Weiss 1995). The domain of switching costs encompasses both monetary expenses and nonmonetary costs (e.g., time spent and psychological effort) (Dick and Basu 1994). Furthermore, the domain could include the loss of loyalty benefits as a result of ending the current relationship. (Lam, Shankar, and Murthy 2004). Thus, as switching costs increase, the intention of customer loyalty increases.

RESEARCH MODEL AND ANALYSIS RESULTS

To improve our understanding of APP service users' decision-making process, the study based on the literature review (Hsu & Lin, 2008; Godin & Kok, 1996) build the research model as Figure 1. Therefore, based on the above researchers, this study examines the following hypotheses regarding service quality, switching cost, service value and behavioral intention:

- **H1:** Service quality will affect customer behavioral intention.
- **H2:** Service quality will affect service value.
- **H3:** Service value will affect customer behavioral intention.
- **H4:** Switching cost will affect customer behavioral intention.

The hypothesis and measurement model are formulated for the exogenous variable and the endogenous variables as shown in Figure 1 to explain the relationships among service value (VAL), switching cost (SW), service quality (SQ) and Behavior intention (BI). The design of the survey questionnaire is based on multiple-item measurement scales.

The measurement items are setting all of the measurement items are based on a 5-point Likert scale related from 1 = strongly disagree/unimportant to 5 = strongly agree/important.

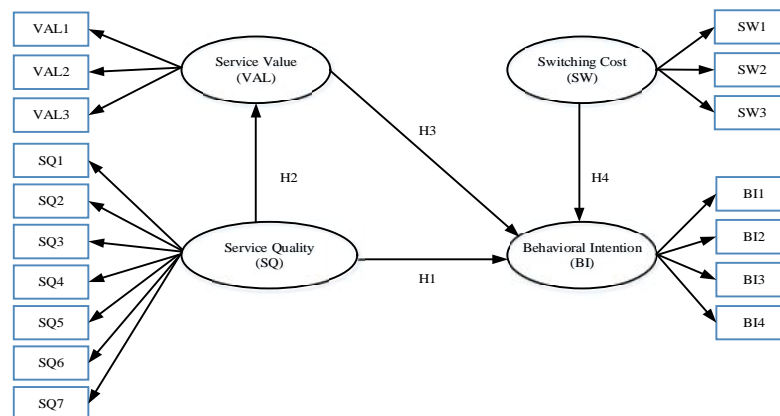


Figure 1: Research Model

To test the hypotheses, an online field survey was conducted. It used a questionnaire designed to be placed on a website. The data was gathered through an online questionnaire survey, the final survey yielded a total of 609 valid questionnaires. There are more than 81% of the respondents are female, 43% of the respondents are 23-29 years old while 4% of the respondents are over 41 years old. Most respondents (72%) are single, and most respondents (78%) have a Bachelor's degree. Furthermore, more than quarter of the respondents are students or employees of a company, and more than 58% of the respondents live in northern Taiwan.

Because of the proposed measurement model was consistent with the data, the hypothesis was tested with LISREL, using the covariance matrix. By using LISREL, the simultaneous estimation of: (1) a measurement model can be obtained that items in each scale to the construct represented, giving factor loadings for each item; (2) a structural model that related constructs to one another, providing the parameter value. The LISREL model represents a series of hypothesis, and how the variables are related. Validity refers to the degree to which a study accurately reflects or assesses the specific concept that the researcher is attempting to measure. Standardized factor loading and t-value are estimated to display validity, and the average variance extracted is also estimated to display validity. Table 1 indicated the measurement model was first assessed through CFA. The measurement model was further assessed for construct reliability and validity. Construct validity was evaluated by examining the standardized factor loadings within the constructs, average variance extracted (AVE), and the correlation between constructs (Hair, Anderson, Taltam, & Black, 1998). Standardized factor loadings on all latent constructs were satisfactory (0.65–0.90), showing satisfactory item convergence on the intended constructs. The AVE of all latent constructs was higher than the suggested value of 0.50. The above tests indicated that the discriminate validity was upheld for the measurement model. Overall, the confirmatory factor model adequately reflected a good fit to the data.

Table 1: Internal Consistency Reliability and Convergent Validity of the Measurement Model

Constructs	Indicators	Factor Loadings	T-Value	Average Variance Extracted	Composite Reliabilities	Cronbach
Service Quality	SQ1	0.69	15.40	0.883	0.519	0.882
	SQ2	0.68	15.53			
	SQ3	0.66	15.69			
	SQ4	0.71	15.12			
	SQ5	0.72	15.05			
	SQ6	0.79	13.80			
	SQ7	0.78	13.98			
Behavior Intention	BI1	0.79	22.97	0.900	0.694	0.897
	BI2	0.86	26.04			
	BI3	0.87	26.48			
	BI4	0.80	23.42			
Service Value	VAL1	0.85	25.46	0.910	0.771	0.908
	VAL2	0.89	27.45			
	VAL3	0.90	27.85			
Switching Cost	SW1	0.73	18.46	0.751	0.502	0.75
	SW2	0.65	16.11			
	SW3	0.74	18.77			

Table 2 shows the standardized path coefficients for our research model as well as portrays the hypotheses test results and the completely standardized parameters in the proposed structural model. All of our hypothesized associations were significant at $p=0.01$. In general, NFI, NNFI, CFI and GFI greater than 0.85 are indicative of good model fit; the Standardized RMR value of 0.14, PGFI value of 0.63 and most other value surpass the recommended level while Root Mean Square Error of Approximation value of 0.11 is at a marginal acceptance level. The results of structural equation modeling obtained for the proposed conceptual model revealed a good model fit ($\chi^2 = 910.89$, $p < 0.001$; CFI = 0.88; IFI = 0.88; RMSEA = 0.1; SRMR = 0.14; NFI = 0.88).

Table 2: Completely Standardized Solution of the Empirical Causal Model

Independent Variable	Direct Effects	T-Value	Indirect Effects	Total Effects
Switching Cost (SW)	-0.08	-2.71		-0.08
Service Value (VAL)	0.85	19.59	-	0.85
Service Quality (SQ)	0.08	2.88	-	0.23
SQ VAL BI			0.15 (0.17*0.85)	

Table 2 indicate that switching cost ($\beta = -0.08$, $p < 0.05$) was a significant negative influence behavior intention. Service value ($\beta = 0.85$, $p < 0.05$) and service quality ($\beta = 0.08$, $p < 0.05$) were significant determinants of behavior intention. This study further evaluated the direct and indirect effects subsumed in the proposed research model. Service quality not only directs effect behavior intention but also exist in direct effect through by service quality, so the total effect of service quality on behavior intention is 0.23 (see Table 2). Comparing the direct, indirect, and total effects among the study variables show service value has the strongest direct and indirect on behavioral intention (Total effects are simply the sum of direct and indirect effects.); and switching cost and service quality are all exit the direct effect on behavioral intention.

IMPORTANCE PERFORMANCE ANALYSIS

Importance-Performance Analysis (IPA) is a simple and useful technique for identifying those attributes of a product or service that are most in need of improvement or that are candidates for possible cost-saving conditions without

significant detriment to overall quality. The application of IPA, introduced by Martilla and James (1977) is well documented and has shown the capability to provide service managers with valuable information for both satisfaction measurement and the efficient allocation of resources, all in an easily applicable format.

Table 3 shows the concept and measure item of APP service quality. Figure 2 highlights the relative positions of attributes in a matrix format, with the important values on the vertical axis and performance values on the horizontal axis. Airline service quality original questionnaire items are classified into quadrants as shown in the graph: quadrant I (maintenance reinforcement area), quadrant II (improvement reinforcement area), quadrant III (secondary improvement area) and quadrant IV (over-emphasized area).

As shown in Figure 2, most of the items fall in quadrant I, II and IV, with just a few in quadrant III. On one hand, APP service provider should maintain the advantage of quadrant I (SQ3 and SQ4). On the other hand, their resource allocation should be changed from quadrant IV (SQ1 and SQ2) to quadrant II (SQ6). As for the APP service quality of SQ5 and SQ7 is the second priority to improve.

Table 3: Service Quality Scale of the APP Service

Code Number	Concept and Measure Item
SQ1	There are many different kinds of gifts of the point collecting marketing program
SQ2	It is easy for me to satisfy the requirement of the collecting marketing program
SQ3	It is easy to use the APP service
SQ4	APP will notify me of the latest setpoint promotions
SQ5	It will provide exclusive marketing program for the APP user
SQ6	The APP is enough security and ensure my rights
SQ7	Points should be transferable to others through the APP service

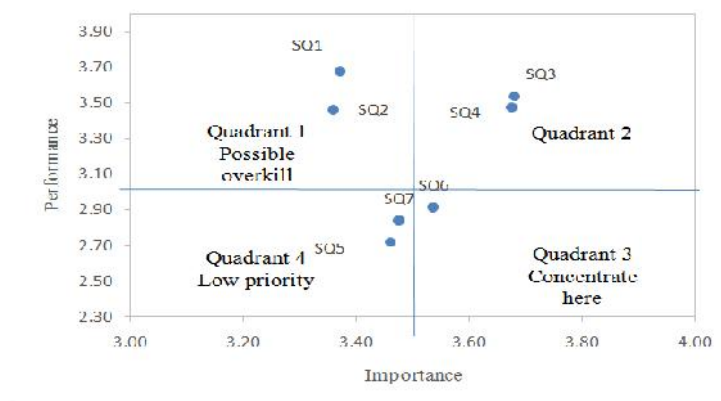


Figure 2: IPA Map

CONCLUSIONS AND SUGGESTIONS REFERENCES

Customer expectations, technological innovations, circulation changes, and changes in economic environments are the four factors that cause market disaggregation and recapitalization. An APP is a fast growing service for mobile Internet and created a new business model and caused a revolution in the convenience store industry. Modeling consumer behavior for the predictive purpose has been a primary concern of marketing researchers in the highly competitive service industry. The study uses Structure Equation Modeling (SEM) to analyze users who have used APP service. First, confirmatory factor analysis (CFA) was performed to determine whether the measured variables reliably reflected the hypothesized latent variables. Second, structural models were tested to determine overall model fit and path coefficients.

The measurement model indicates the theoretical constructs have adequate reliability and validity, while the structured equation model is shown to have a high model fit for the empirical data. The study's findings show that the proposed model has good explanatory power and confirms its robustness in predicting customers' intention to use APP service. The results indicated the service value, service quality, and switching cost are affecting users' behavior intention.

Our study presented and validated a multi-facet model to help to understand the factors contributing to APP usage. The findings have both managerial and research implications. For managers of the convenience store, how to offer the consumer satisfied quality becomes the essential running methods of the service industry businessmen. Maintaining a great quality relationship with the customers will usually lower the customers' uncertainty and increase their sense of security. Therefore, establishing a great relationship with customers has become the urgent business of enterprises. Moreover, how to maintain a great relationship with customers also becomes an important issue for the service industry businessmen. Additionally, the importance-performance analysis indicates that a convenience store should maintain the advantage of APP service such as "It is easy to use of the APP service (SQ3)", and "APP will notify me about the latest set- point promotions (SQ4)". In addition, some studies suggest that most consumer choice behavior can be regarded as a discontinuous catastrophe phenomenon. The behavior can be nonlinear and complex, and the satisfaction or the dissatisfaction thresholds that may not be occurred at the same point. We also suggested the future researcher can consider exploring the nonlinear behavior of APP service by some nonlinear model.

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