## **Chapter 6 Conclusions and Suggestions**

## **6.1 Review of Research Findings**

In the Internet economy, it is relatively easy to create new business models but difficult to keep generating benefit from them in the long run. Slow growth and intense competition in retail markets in recent years increase the need for retailers to use strategies focused on retaining and attracting the right customers. However, a strategy that is effective in acquiring new customers may not be the most effective in retaining existing customers. In order to analyze the effects of customer satisfaction and switching cost on customer loyalty, catastrophe is proposed using in this research.

Catastrophe Theory (CT) is a theory of great generality that can provide useful insights as to how behavior may radically change as a result of varying smoothly control variables. The theory describes how small, continuous changes in control parameters can have sudden, discontinuous effects on dependent variables. The cusp catastrophe model needs one behavior variable and two controllable variables. To find what the appropriate controllable variables are, we adopt the recently widely used Structural Equation Model (SEM), which can incorporate the conventional factor analysis and path analysis.

This study conducts an online survey of those in Taiwan who have experience in online shopping and goods pick-up at convenience stores, in order to investigate how customer satisfaction and switching cost influence customer loyalty. In order to understand the effectiveness of activities designed to retain customers, we study the pick-up point loyalty intentions of existing customers for two convenience stores.

According to SEM analysis in the thesis, the switching cost and the service quality are the two major factors that can influence the loyalty of a pick-point, and the service quality and the switching cost could be changed as we change the marketing program. Therefore, we will use service quality and switching cost as two controllable variables in the cusp catastrophe model. GEMCAT is employed to estimate the cusp catastrophe model using our research data.

The purpose of the thesis was to explore the relationships between service quality, switching cost and loyalty using a nonlinear dynamic modeling approach. In accordance with the catastrophe theory, results were analyzed using the program GEMCAT II. In addition, we described the nonlinear behavior of pick-up point services loyalty by changing the customer satisfaction and the switching cost using our program, Visual Basic 6.0. According to our nonlinear analysis, these

characteristics including bimodality, hysteresis and catastrophe are all present in our research data. Finally, we developed three different loyalty strategies to maintain the loyalty of retailing delivery. The contributions of our work are as follows.

- 1. After using the Structural Equation Modeling to test the relationship between loyalty and the abovementioned factors, the research results obtained are as follows.
  - Service quality has positive effects on loyalty
  - Service quality has positive effects on satisfaction
  - Higher levels of satisfaction are associated with higher levels of loyalty
  - Switching cost has positive effects on loyalty
  - Service quality not only affects loyalty directly but also affects loyalty by customer satisfaction indirectly.
  - Service quality and switching cost are the most important factors with significant impact on loyalty.
- 2. Cusp catastrophe model fit and dynamic analysis results are as follow:
  - In the cusp catastrophe model, "Reselection electronic map" is the main index of the splitting factor. "Relative service quality concerning the electronic map" is the main index of the normal factor.
  - These characteristics including bimodality, hysteresis and catastrophe are all present in our research data.
  - When increasing the value of retailing delivery services through some marketing strategies, such as premium program, quick ordering, and some useful hints on the webpage, the loyalty relationship between customer and convenient stores will be enhanced.
  - With high switching cost, whether a person is satisfied or dissatisfied, it is very difficult to change to the opposite state. On the other hand, if a change is effected, our model would predict that it will persist with the same degree of "inertia" which maintains the original state.
  - According to the previous findings of loyalty within the application of the cusp catastrophe theory, the cusp catastrophe model is an appropriate model for understanding the process of loyalty.

## **6.2 Managerial Implications and Suggestions**

Electronic commerce is increasingly popular with today's consumers. The business-to-consumer EC environment has large volume, unpredictable and dynamically changing customer orders. In response, the industry is shifting its strategic focus away from attracting new customers towards retaining existing customers through the promotion of customer loyalty. Customer satisfaction and customer loyalty is becoming an important factor in the modern retail market characterized by slow growth and intense competition. The managerial implications and suggestions as follows:

First, RD carriers must, above all else, maximize customer satisfaction and switching cost in order to enhance customer loyalty. In particular, RD carriers must focus on service quality to heighten customer satisfaction. At the same time, efforts to raise the switching barrier include building a long-term relationship with customers by further investing in customer relationship management.

Second, the switching cost was found to have an adjustment effect on customer satisfaction and customer loyalty. In a mature market, building a switching cost emerges as a necessary strategy to safeguard one's market. Hence, the RD carrier must increase the cost of switching in order to increase its market proportion.

Third, service quality builds loyalty; service marketers should consider developing special loyalty-enhancing initiatives for their customers to reinforce satisfaction. A strategy that is effective in acquiring new customers may not be the most effective in retaining current customers. In order to understand the effectiveness of activities designed to retain customers, we must explore the store loyalty of current customers for the RD service provider.

Finally, the exact shape of the response surface may vary from the canonical form. The shape of cusp can be narrower, wider, or curving at a different rate. For a narrow cusp case, to improve the quality of service will be the best way. Managers should try to insure that initial service quality is high, and focus the marketing effort on non-physical attributes that help build brand loyalty. A wider cusp indicates that switching cost has more significant impact on loyalty in specific association of the control variable set. For managers facing this situation, a major emphasis should be placed on seeing that service quality is good when service quality is bad. On the contrary, if service quality is not too bad but switching cost is high, it will be the best way to make an effort to decrease switching cost.

We hope that we made clear that the catastrophe approach to discontinuous behavior has fruitful implications. Catastrophe theory concerns qualitative behavior of continuous variables. It suggests a complex relation between continuous and categorical variables, which falls outside the scope of standard categorical models and data-analytical methods. It is suggested that other researchers could consider the cusp catastrophe theory and other nonlinear techniques, especially when standard approaches do not adequately capture the underlying dynamics.

