Does Customer Satisfaction Affect the Quality, Trust – Loyalty Links in the Marketing Channel Context? – An Empirical Study on Taiwan Hypermarket

Yung-Hsin Chen[1*], Shuo-Chang Tsai[1], Ya-Wen Yu[1], Ying-Ying Wang[2], Sheng-Hsiung Hsu[1]

[1]Department of Business Administration, Asia University, Taichung, Taiwan

[2]Department of Business Administration, National Yunlin University of Science and Technology

* thomaschen@asia.edu.tw, sttsai@asia.edu.tw, ywyu@asia.edu.tw, wj0720@yahoo.com.tw, got5018@yahoo.com.tw

Abstract –**Marketing channel as the downstream end of a supply chain plays a crucial role in generating cash flow and meeting the demands of customers. The extant body of literature postulates that antecedent-consequence links that customer perceived value and service quality foster customer loyalty, leading to long term profitability. Nowadays, given the proliferation of global hypermarket organizations and their adapting retail positioning strategy, it is worthwhile to re-examine the validity of those postulations. This study conducts an empirical study on the customer perception of quality of product/service toward a multinational chained hypermarket store in Taiwan. The objective is to test the established theory in the domain of SCM by constructing the hypotheses based on the extant literature and allowing a structure equation modeling (SEM) for path analysis. The contingency theory in organization behavior explains the findings that are seemingly contradictory to the well-accepted paradigms. The outcome provides an insight into how hypermarket retailers should make improvement in customer satisfaction to reinforce customer loyalty while executing the 'low-price, low-service' marketing strategy.**

Keywords – **Channel management, contingency theory, trust, customer satisfaction, loyalty**

I. INTRODUCTION

The research of supply chain management (SCM) has been for decades the focus of academic communities and practitioners alike. The evolution of personal computer (PC) industry which started up from Apple Computer accounts for, if not all, the formation of worldwide supply chains across the continental boundaries. The best practice exercised by Dell computer manifests itself in the form of make-to-order mode, mass customization, postponement of differentiation, E-collaboration, and strategic outsourcing [1]. Another successful story is the act of vertical integration in the supply chain by ACER, all the way from R & D, manufacturing, physical distribution, to global channel consolidation. Marketing channel as the extreme downstream end of a supply chain plays a crucial role in generating cash flow and meeting the demands of customers to their satisfaction. Therefore, people take it for granted that offering attractive product and necessary service is what a marketing channel outlet should do. Failing to do so invokes customer deflection in the form of purchase switching; on the other hand, making it ensures the customer retention. Satisfied customers

reward the selling organization with their loyalty substantiated in the behavior of repurchase, word of mouth, and affinity relationship. Many theoretical frameworks of service industry in the extant literature indicate that product quality leads to satisfaction which in turn creates loyalty [2], present the association chain of service quality-value-loyalty [3], the relationship between product quality and loyalty [4], and that between satisfaction and loyalty [5].

Relationship among the stakeholders in a supply chain context for certain an industry can always be represented as either the short term transaction type or the collaborative partnership type where mutual trust elaborate the alignment of business strategies to integrate internal operations for long-term global optimization [6], [7]. [8] defined the term 'satisfaction' as the gap between the perception and expectation towards products or services. A great deal of difference between perceived value and expectation towards products or services in the positive direction, leads to better satisfaction. Therefore, we assume trust and customers' satisfaction may as well constitutes an important construct in the process customer-retailer interaction, as it conveys the message of anticipation whether customers retain in the incumbent channel outlets or defect to the others [9]. Scholars indicated that SCM has shifted business focus from physical efficiency to market mediation, and from supply side to demand side [10]. Thus, whether the importance of 'trust' in the buyer-seller relationship in the upstream SCM is also valid in the retailing context deserves our more attention. Literature discloses the observation instance that trust exerts a direct influence on perception of satisfaction [11], however, empirical research that focuses upon the study of trust-satisfaction link have largely limited in the area of fraud or theft in the insurance market [12]. This lack of understanding the trust-satisfaction relationship in the retailing context arouses out motivation to do an empirical study to explore what it is.

The contingency theory depicts that the performance of an organization is a function of interaction among that organization, its environment, strategy, and structure. Environment refers to the aggregate of inputs from individuals, groups, and informal organizations, as well as influence power coming from outside. Strategies shape up the organization's relative market positioning and the countermeasures to cope with competition. Contingency theory explains the reason why channel consolidation took place in the new century. The hallmark of global channel

consolidation is the ongoing revolution of merger and acquisition activities in the area of wholesales and retail channels, especially the hypermarket organizations like Wal-Mart, and Carrefour. However, to implement the 'everyday low price' positioning strategy, the management resorts to switching from 'high service, high margin' operations to 'low-price, low-margin, low-service-level, and high turnover' approach where service outputs like product selection opportunity, convenience in location, atmosphere of the retail ambience, personal support, and delivery arrangement are reduced or even neglected. In addition, to seek for any opportunity of making a profit the hypermarket brings out 'private brand products' that are substantially cheaper than the national brand products, however, and are somewhat suspicious in the ingredient quality and use safety. This leverage product quality and service level to trade off cost and profit is likely to blur customers' perception on products quality and service level, undermine their trust on the hypermarket brand, and reduce their degree of shopping satisfaction, as a consequence, jeopardize their loyalty to the retailer.

In Taiwan there exists a mix of multinational hypermarket retailers such as Costco, Carrefour, and domestic hypermarket retailers like DaRunFa, AiMai, and so on. Our observation indicates that pursuing short term economic gain by introducing too much private brand products of lower price will be determinant to the quality-satisfaction-royalty link to affect consumer repurchase intention. On the other hand, we are motivated to investigate whether the construct 'trust' as an importance element in the buyer-seller relationship in the upper-stream SCM also weighs heavy in the down-stream SCM—the retailing market. We assume the mediating role of customer satisfaction in the quality, trust-loyalty link as an area of research interest, for the quality-satisfaction-royalty link seems to be self-evident, nevertheless, is context dependent according to some empirical study [14]. It is worthwhile to test the theory in the hypermarket shopping environment, and provide an insight into consumer buyer's perception toward the retail channel. The result of this study will make a contribution to the management of hypermarket channel as a source of suggestion for improvement. The remaining part of this paper is structured as follows. Section 2 depicts the methodology including the research question and the hypotheses. Section 3 presents the result. Section 4 and 5 include the discussion, and the conclusion.

II. METHODOLOGY

A. Research Assumption

Based on the effort of literature review mentioned above, we set up the research question as the theoretical framework shown in Figure 1, in an attempt to explore the relationship between the constructs like 'product quality perceived by customers', 'customers' trust toward the retailer', 'service quality perceived by customers' and other constructs such as 'customer satisfaction' and 'customer loyalty to the retailing organization'. The

quality-satisfaction-royalty link has been recognized in the extant body of service literature. However, we intend to examine its validity in the environment where quality and brand image has been diluted due to retailer's operational and marketing strategy. We introduce the construct 'trust' into the theoretical framework, for the origin of the private brand products is not easily to be identified, trust herein becomes an crucial element in this study. Thus, we make hypotheses as follows:

H_1 : Product quality has positive influence on customer satisfaction

H_2 : Service quality has positive influence on customer satisfaction

H_3 : Customers' trust has positive influence on customer satisfaction.

H_4 : Product quality has positive influence on customer loyalty

H_5 : Service quality has positive influence on customer loyalty

H_6 : Customers' trust has positive influence on customer loyalty

H_7 : Customer satisfaction has positive influence on customer loyalty

B. Research structure

The path diagram for the theoretical framework is shown in fig. 1. Corresponding indicator variables are usedto measure the extent of customer perception towards the five latent variables that cannot be directly measured. Being limited by the space allowed for the paper, the question items for the indicator variables in the abbreviated form are shown in the left side of Table I. The survey instrument will not be shown here.
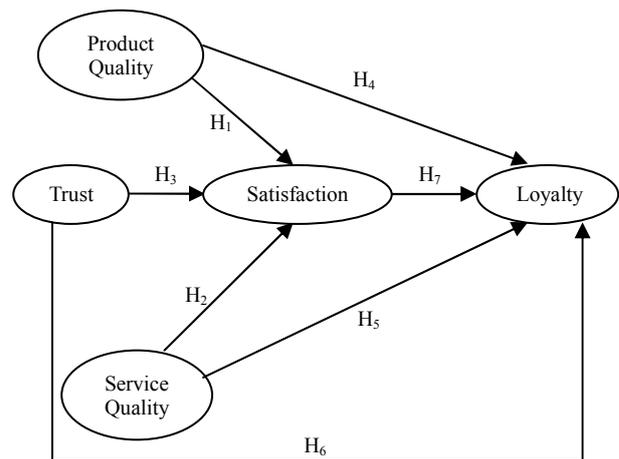

Fig. 1 The theoretical framework

The equivalent simultaneous linear equations for the theoretical framework are shown below:

$$\eta_1 = \gamma_{11}\xi_1 + \gamma_{12}\xi_2 + \gamma_{13}\xi_3 + \zeta_1 \qquad (1)$$
$$\eta_2 = \gamma_{21}\xi_1 + \gamma_{22}\xi_2 + \gamma_{23}\xi_3 + \beta_{21}\eta_1 + \zeta_2 \qquad (2)$$

Where

η_1 is the latent variable for construct 'customer satisfaction'

η_2 is the latent variable for construct 'customer's loyalty toward the hypermarket'

$\xi_1 \sim \xi_3$: product quality, trust, service quality

γ 、 β : the weights of influence factors

ζ : error terms

C. Instrument Design

The survey instrument is developed in four steps: (1) question items are borrowed from justified research articles of similar research background from various academic journals, (2) field observation by physical presence and practice in the hypermarket store for the robustness of construct, contents, and operational variables, and item wording, (3) design of the questionnaire for pretest and revision, (4) use of Cronbach's coefficient alpha, item-to-total correlations, exploratory factor analysis to cross out the inappropriate items, and (5) collect primary data for testing the reliability of the measurement system.

The survey instrument is composed of two parts. The first part includes question items to measure customers' perception on the five constructs. It employs Likert's 5-point summated scale to accommodate response ranging from 'strongly agree', 'moderately agree', 'just agree', 'not agree', to 'strongly not agree'. The second part of instrument involves data related to the demographic and socioeconomic variables such as age, education level, and job position. The pretest applies ANOVA to see the observations differences among samples featuring these variables. Data is collected by intercept method in the vicinity of a major hypermarket store in the southern Taiwan region. The response rate is 86.25% (345 returned against 400 issued), and after data cleaning to obtain 345 effective questionnaires.

We use construct reliability (CR) and variance extracted (VE) to test the reliability of indicator variable measurement system. The preferable value for CR is greater than 0.7 and VE is greater than 0.5. The outcome of pretest justifies the reliability and validity of the survey instrument. Software package SPSS AMOS 5.0 enables us to carry out the Structural Equation Modeling (SEM) task for path analysis with latent variables.

III. RESULTS AND FINDINGS

A. Measurement System Test

Based on the data collected, we obtained all the value of CR and VE for indicator variables representing five constructs latent variables: product quality, service quality, customer trust, customer satisfaction, and customer loyalty are greater than 0.7 and 0.5 respectively as shown in the Table I. It justifies that the reliability of the measurement system and confirm the constructs is adequate for this study.

TABLE I
RELIABILITY OF THE MEASUREMENT SYSTEM

	Factor loading	CR construct reliability	VE variance extracted
Product quality			
Products quality is consistent	0.80		
Products are safe to consume	0.81	0.86	0.55
Products provide warranty	0.73		
Product pricing are reasonable	0.61		
organizational adaption	0.79		
Service quality			
Store keeps promise	0.72		
Store worker provide assistance	0.82		
Store worker display good attitude	0.82	0.88	0.59
Store workers are considerate	0.79		
company-wide pervasion	0.68		
Trust			
I trust products sold here	0.83		
I trust service provided	0.84		
I trust the store is responsible	0.82	0.92	0.69
I keep close relationship with this store	0.81		
I assess this store as reliable by my past shopping experience	0.84		
Customer satisfaction			
It is wise of me to shop here	0.83		
This store is better than others	0.80	0.88	0.70
I am satisfied with this store	0.88		
Customer loyalty			
I shop here as the first priority	0.77		
I will recommend friend to shop at this store	0.77		
I prefer product sold here than any other stores	0.87	0.91	0.67
I enjoy service offered here than any other stores	0.86		
I will keep on shopping here	0.83		

B. The Model Goodness Fitting Test

TABLE II
THE RESULT OF GOODNESS FITTING FOR SEM

Model goodness fitting	Preferred value	Value
CMIN/DF	< 3	1.743
GFI	> 0.9	0.916
AGFI	> 0.8	0.889
RMR	< 0.05	0.024
RMSEA	< 0.1	0.046
NFI	[0,1] and approaches 1	0.920
RFI	[0,1] and approaches 1	0.903
IFI	[0,1] and approaches 1	0.964
CFI	[0,1] and approaches 1	0.964

The result of goodness fitting for SEM is shown below in Table II. All values perfectly meet the criterion of preferable values, referring to a good fitting for

building up the SEM model.

C. Hypotheses Test

Here we report the result of hypotheses test for H_1 to H_7. The value of path weight between the construct of product quality and customer satisfaction is - 0.05 (p > 0.001) to indicate a very weak negative relationship; the value of path weight between product quality and customer loyalty is - 0.08 (p > 0.001) to indicate very weak negative relationship; the value of path weight between customer trust and customer satisfaction is 0.95 (p < 0.001) to indicate a strong positive relationship; the value of path weight between product quality and customer loyalty is - 0.09 (p > 0.001) to indicate a very weak negative relationship; the value of path weight between service quality and customer loyalty is 0.05 (p > 0.001) to indicate a very weak relationship; the value of path weight between customer trust and customer loyalty is 0.75 (p < 0.001) to indicate a strong positive relationship; and the value of path weight between customer satisfaction and customer loyalty is 0.73 (p < 0.001) to indicate a strong positive relationship. All hypotheses in the study are not supported, only trust-satisfaction link, trust-loyalty link, and the link between satisfaction and loyalty are supported. The summary of hypotheses test is shown in Table III.

TABLE III
THE RESULT OF HYPOTHESES

	Standardized Path weight	S.E.	C.R.	p value
product quality→ customer satisfaction	-0.05	0.08	-0.61	0.54
service quality→ customer satisfaction	-0.08	0.14	-0.55	0.58
customer trust → customer satisfaction	0.95	0.13	7.27	***
product quality→ customer loyalty	-0.09	0.08	-1.06	0.29
service quality→ customer loyalty	0.05	0.12	0.51	0.61
customer trust → customer loyalty	0.75	0.13	7.46	***
customer satisfaction → customer loyalty	0.73	0.10	7.52	***

To probe into the total effect of these significant links, from Table IV we learn a value of 1.166 for the trust-satisfaction link, and 1.174 for the trust-satisfaction link, while a value of 0.618 for the link between satisfaction and loyalty. The total effect of 0.618 is sum of the indirect effect 1.368 and the indirect effect of -0.75. This implies that without the intervention

of customer satisfaction, only customer trust on the hypermarket store will suffices not the occurrence of loyalty behavior by the act of repurchase, word of mouth, and affinity relationship build-up.

TABLE IV
THE COMPARISON OF DIRECT AND INDIRECT EFFECT

	Direct effect	Indirect effect	Total effect
product quality→ customer satisfaction	.033	.000	.033
product quality→ customer loyalty	-.075	.038	-.037
service quality→ customer satisfaction	-.395	.000	-.395
service quality→ customer loyalty	.424	-.463	-.039
customer trust → customer satisfaction	1.166	.000	1.166
customer trust → customer loyalty	-.750	1.368	0.618
customer satisfaction → customer loyalty	1.174	.000	1.174

VI. DISCUSSION

This study unveils several interesting findings that are contradictory to the established belief in the buyer-customer relationship. The invalidity of quality-loyalty links is more or less understandable. Product and service quality is the sufficient condition, but not the necessary condition of loyalty build-up. However, failing to support the hypotheses for the quality-satisfaction links is so salient that we have to find a reason convincing enough to describe and explain this market phenomenon. The 'contingency theory' depicts that the performance of an organization is a function of interaction among that organization, its environment, strategy, and structure. Among many possible explanation, in order to meet the demands of increasing number of price sensitive customers, the management of hypermarket adjusts the market positioning strategy as 'low-margin and 'low-service' and introduce more low-price product varieties and assortments that ensure customer attraction. Besides, to pursue better profitability the hypermarket also brings out a broad spectrum of 'private brand products' that are readily assessed by customers as the inferior in quality. Under this circumstance, no real quality product is available and thus nullifies the quality-satisfaction link.

To justify the validity of the trust-satisfaction-loyalty link, we may recall the market phenomenon that has taken place recently in the Asia consuming market. Trust on the brand of the hypermarket or products sold there may generate attitudinal loyalty per se, however, the substantiation of behavioral loyalty that invokes actual repurchase is situation dependent. The fear of toxic ingredient in the milk power, dangerous preserves used in foods, counterfeit of product origin of country, and remains of pesticide on vegetable are the major concern for customers when shopping at the grocery hypermarket. Consumers will keep eyes on the instances of scandal that

take place in the hypermarket and observe how the hypermarket tackles the issue. Dexterously managing the prevention and remedy against scandal is the most useful way to gain customers' trust. Persistence in doing so and working out new technology to rule out any chance for mishap surely wins customer satisfaction, and in turn reinforce their loyalty in either the attitudinal side or the behavioral side.

Based on the above-mentioned discussion, contingency theory is entitled to explain the cause and effect of 'low-margin, low-service' and 'private brand product' market positioning strategy adopted by current hypermarket players. During In the period of worldwide economy depression, retailers certainly make every effort to make a profit to sustain the business operations. However, they have to give heed to the transition of consumer behavior because customer believes that retailers take title to guard the integrity of goods and foods sold in their stores. How to make it and communicate well with customers to gain their trust and promote satisfaction for loyalty build-up becomes the top priority.

V. CONCLUSION

As a well-established theory in the literature, the quality-satisfaction-loyalty association failed in passing the testing theory process in this study. On the contrary, the less visited trust-satisfaction-loyalty link passes the theory test given a turbulent environment when facing depression. It does so thanks to the mediating effect by the construct 'satisfaction'. The trust-satisfaction-loyalty link proposed by us justifies itself as the ground to build a theory to describe, explain, and predict consumer behavior when shopping in the contemporary hypermarket. The finding indicates that the consumer behavior and the organizational behavior alike subject to the external environment, i.e. context dependent as depicted in the contingency theory.

The limitation of this study is that the sampling frame is confined within customers of a particular multinational chained hypermarket store, thus generalization to the whole industry is not without argument. However, it sheds the light on opening a new research area in the marketing domain, because most of established theory or propositions are developed in the temporal continuum from after world II to the advent of new century. The financial Tsunami occurred in the late 2008 led the world economy into an unknown region where consumer behavior could distort itself to adapt to the changing environment. Our study makes an empirical study on the customer perception of product and service quality toward a particular store in a multinational chained hypermarket organization. The objective of testing the established theory in the domain of SCM has been accomplished by allowing a structure equation modeling (SEM) for path analysis. The contingency theory in organization behavior helps in explaining our findings that are contradictory to the well-accepted paradigms.

The contribution of this empirical study lies in its provision of the insight into how retailers should closely keep track of customers' perception and take necessary measures cultivate trust to win their satisfaction that leads to loyalty, when retailers are changing their positioning strategies. Trust only foster no customer loyalty, whereas a balanced set of strategy involving quality, pricing, and relationship management that enhances the satisfaction level will work out the accumulation of customer loyalty. Extending the study by covering more retailing outlets for generalization will be the direction of our further research.

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