

*Full Length Research Paper*

# Developing an optimal operation model with two competing models for retailers to explore customers shopping preferences

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Accepted 29 July, 2010

**This study highlights the optimal operation model for retailers to use in exploring the effect of customer loyalty and service quality on customer shopping preference. It offers a more profound understanding of the value of customer service and innovation in generic operation skills in international retailers (IR). This research uses the Likert and Semantic differential scale methods through the MTMM (multitrait-multimethod) to measure reliability, validity, and take two competing models to analyze the model fitness. The two competing model strongly shows the impact on channel retailers when they develop an optimal operation to probe the customer preference. The finding of Host Country Retailer (HCR) should reinforce their service quality by canvassing more customers shopping in the stores, and improve their service feedback speed. In a competition between the semantic scale of SEM and the Likert scale, measurements make it obvious that the Likert scale of SEM is more powerful. It's good for the retailers and business manager to have furthering understand the operation skill and service improvement. The leader of channel retailers should from mind to start targeting their goal and incremental market value to service more customers shopping preferences.**

**Key words:** Operation, service quality, international retailer, host country retailer, shopping preferences.

## INTRODUCTION

The retailing industry is facing increasingly fierce challenges, which include continuous development, designs, and new operating skills to meet Customers' diverse demands. With rapid technological advancement, more and more innovative retailing service styles, such as department stores, hypermarkets, wholesales warehouses, warehouse clubs, shopping malls, shopping centers, power centers, theme/festival centers, and outlet centers, are developed and introduced into the market. Actually, a lot of the world's prominent retailers have already derived a significant proportion of their sales from international operations (Kuipers, 1994).

The pattern of the retail store is changing as a growing number of international retailers have shifted their attention to developing economies (Barth et al., 1996; Reuling, 1998; Henzepeter, 1999; Goldman, 2001). International retailers such as Wal-Mart (Sam's Club), Carrefour, Kroger, Sears, Home Depot, RT-Mart (Auchuan), Tesco,

and Costco, seem very popular among consumers. However, retailers of local regional channels, such as the Tai-Sugar hypermarket, Dollar\$ Warehouse, Safe & Save, and Far-eastern department store are not comfortable coping with international retailers. How do the host country retailers cope with the large-muscled competitors? What do these large formats mean to consumers? As these global international companies (that is, Wal-Mart, Carrefour) intensify their presence in the host country, what is the likely retail scenario in the future and what are the implications for host country retailers? What is the major trend in the global retail development? What are the opportunities for retailers, developers and investors? The international retailers are driven by the opportunities in the countries, such as high growth rates, growing middle-class, weakness of local retailers, and the maturation of retailing in the developed economies (Goldman, 2001; Chen, 2009).

An international company expanding across national boundaries often finds itself in the position of entering a market for the first time. The company must either use established channels or build its own channels. It retreats from the market if neither works (ex: Makro co., ltd. in Taiwan).

Channel obstacles are often encountered when a company enters a competitive market in which brands and supply relationships are firmly established (Arnold and Quelch, 1998). In competitive markets with sufficient service, quality is stressed under retailing channels. This operational situation is quite severe for both the international and host country retailers (Grewal et al., 1999; Keegan, 2002). This research explores the retailing competitiveness in operation between the International Retailer (IR) and Host Country Retailer (HCR) to develop the optimal allocation for customers' shopping tendencies. There has also been an increase in customer fragmentation as smaller and smaller groups of customers demand products and services tailored to their individual needs (Grewal et al., 1999; Chen, 2009). Retailers respond to customers' demands by embracing new technologies such as database marketing and mass customization. The regional retailer and the host country retailer (HCR) use the same measurements for retail stores. However, none of the research resources states the criteria of store service quality or customers' loyalty to shopping tendencies. This research examines the relationship between customer loyalty and service quality to shopping tendencies.

This study highlights the optimal decision model of operation to better understand stores of international retailer and host country retailer so that their performance can be maximized. We may examine the model with empirical tests to judge its fitness and value. It offers the channel of retailers a more profound understanding of the value of customer service and innovation in generic operation skills in the new format.

Therefore, this research develop the conceptual model frame, shown in Figure 1, to examine the constructs of store customers' loyalty and service quality in order to measure the impact of shopping intention.

## LITERATURE REVIEW

### International retailer and host country retailer with customer relation

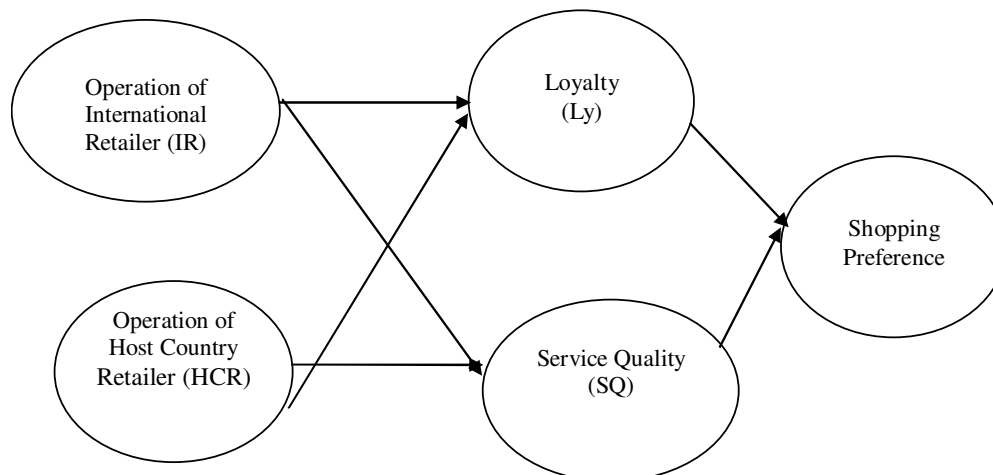
The relationship between the IR stores and HCR stores to customers can be characterized as a struggle for channel control and market share. Retailers (especially for international retail stores) build up their power through customer loyalty (Dune, 2002). They also know that loyal customers are more likely to pay full price at their favorite stores (Garretson et al., 2002). If customers do not receive satisfaction (such as meeting their requirements

for quality and variety of goods and price) while shopping in a particular store, they may shop elsewhere. Customers sometimes form unique associations with certain retailers; they are likely to shop in their favorite stores for what they require.

The stores in a retailing channel are eager to set up a store image that will promote strong customer loyalty; they might offer more value-added services to the customers. Furthermore, a company may determine customer loyalty by measuring the number of times a person shops at a particular store, the number of times a person shops at other stores, and the likelihood that this person would recommend the store to others (Arnett et al., 2003).

The operation of International retail stores and Host country retail stores also integrate their information technology resources and their power of mass marketing to set up programs for customer loyalty. Some examples are buy-two-get-one-free promotion, shopping bonus, direct mail coupons, and members' refund, etc. This study shows that customers' loyalty to retailers may be affected by the availability and accessibility of international retailer or host country retailer. Loyalty is more than simply consumers preferring one store to the other (Shugan, 2005).

The approaches for developing customer loyalty are positioning, providing good customer service, and offering unique merchandise (Levy and Weitz, 1996). Retailer loyalty is defined as "a deeply held commitment to re-buy or re-patronize a preferred product or service consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behavior" (Oliver, 1997). A loyal base of customers reduces the vulnerability of a retailer to rival retailers' actions (Aaker, 1995). In general, increase in loyalty leads to an increase in equity (Yoo et al., 2000; Arnett et al., 2003). As such, customers' loyalty towards international retail or host country retail stores will also be directly and positively influenced by the store's operation (Yan et al., 2007). Changes in store operation would be accompanied by changes in observed variables such as store formats, information technology, category management and store image. The retailer's tools for influencing consumer perceptions regarding market position are store image, advertising, and the store format with environment. Dunne et al. (2002) pointed out the optimal merchandise mix consists of three dimensions (variety, breadth, depth) within a merchandise line, as a strategic business unit in the term of category management (Leclerc. et al., 2005). Today, service retailers must understand service quality concepts, apply them in managing their store image, selling environment (stores format), category management, and information technology to analysis, and communicate products knowledge to consumers. When these methods of communication are poorly planned or executed, inappropriate customer perceptions are created, which lead to inappropriate customer expectations. The channel retailers can deliver either good or poor



**Figure 1.** Conceptual model: The impact of loyalty and service quality to shopping preferences.

service, which is either consistent or inconsistent with customer expectations. However, good service delivery can also lead to missed opportunities if it is not consistent with customer shopping preferences and expectations.

H<sub>1a</sub>: The operation of international retail stores will have positive effect on customer's loyalty.

H<sub>1b</sub>: The operation of host country stores will also have positive influence on customer's loyalty.

While we expect host country retail stores to have the competitive advantage over international retail stores, we believe that each store needs to have a high overall level of service quality. Good service keeps customers returning to a retailer and generates positive word-of-mouth communication, which attracts new customers. From a long-term perspective, good customer service can actually reduce costs, because it actually costs five times more to acquire a new customer than to generate repeat businesses from existing customers (Levy and Weitz, 1996). Service quality is one of the key characteristics of strong and successful retailer stores.

Some retailers also emphasize quality and freshness in their perishable food department. Researchers have suggests that perceived service quality affects consumers' behavior (Bolton, 1998). Some retailers use OTB (open to buy) method to offer better quality apparel and to increase service operation. Retailers that develop a reputation for knowledgeable service and sales personnel can build long-term relationships with customers and thus, get sales (Liang and Wang, 2006). High-quality service is defined as delivering service that meets or exceeds customer's expectations (Dune et al., 2002). There seems to be no absolute standard for service quality, but service is perceived as high quality because it meets and exceeds expectations of customers.

The impact model of retailing is based on the tasks of getting consumers from your trading area into your store,

converting these consumers into loyal customers and doing so in the most efficient manner possible (Dune et al., 2002). The retail store should offer excellent service quality, and perform it right at the first time (Dabholkar et al., 1996). If HCR stores cannot offer quality higher than the IR stores, the HCR customer shopping preference and frequency will then decrease. The internationalized retailer (such as: Wal-Mart, Carrefour) always integrates its stronger bargain power to negotiate with the suppliers and offer a better quality of products to its customers.

Based on the aforementioned discussion, the hypotheses concerning service quality are offered in the following:

H<sub>2a</sub>: The operation of IR stores has significant effect on store's service quality.

H<sub>2b</sub>: The operation of HCR store has significant effect on store's service quality.

### Impact on customer shopping preferences

By increasing value added services, retailers expect to attract consumers from their trading area into their store, converting these consumers into loyal customers. They do so in the most efficient manner possible (Dune et al., 2002). The host country stores might try to increase customer shopping loyalty by some consolidation of their format and systematic association with customers. But more is required. They must have strategies for positioned format and extended layout movement. We can see more or less with the examples of Siam discovery shopping center in Thailand, Wu-Mart chain store in China, Jusco supermarket in Japan, Dollars warehouse in Taiwan, Park and Shop in Hong Kong, etc.

Thus, format strategy is often the key to an international retailer's ability to gain a strong competitive position in host countries (Goldman, 2001). The retail stores of the

international channel always develop the customer loyalty program and higher service quality to attract their customers and retailer equity should relate positively to shopping intention (Keller, 1998). When customers purchase merchandise, they will be likely to re-shop in the same store (Baker et al., 1992; Chen, 2009). Customers recommending a store to their friends have a high intention to re-shop and a high degree of satisfaction for the store. We may find the retailers care about their stores' customer loyalty, and use both paths parallel in store operation specification. In contrast, customers may be expected to shop in the host country retail store when they have the same format strategy to shopping preference.

H<sub>3</sub>: Customer loyalty will have a positive effect on the customer shopping preference in the IR and HCR stores.

Retailers that stress customer service quality always follow the service-oriented economy. Service quality was developed and constructed through three original dimensions: tangibles, reliability, and responsiveness by SERVQUAL and two subsequent dimensions: assurance, and empathy (Parasuraman et al., 1988). Gaur and Agrawal (2006), who reviewed the empirical research reveals that the both SERVQUAL and RSQS fail to serve as univocally reliable and valid measures of retail service quality. Thus, Gaur and Agrawal (2006) modified the RSQS and SERVQUAL to measure the retail service quality after Kaul (2005) argued that RSQS six dimensions (that is, Personal interaction, Physical appearance, Promises, Policy, Convenience and Problem solving) were not valid in Indian retailing. Kim and Jin (2002) pointed out that among the five dimensions of the RSQS, Problem solving and Policy were the only two new dimensions proposed by Daholkar et al. (1996), the rest being similar to SERVQUAL (Gaur and Agrawal, 2006). For service quality, there has been an increase in customer fragmentation as smaller and smaller groups of customers demand products and services tailored to their individual needs (Grewal et al., 1999). When Retailers are more responsive to customer demand, the customers will reflect their shopping preferences more when they make shopping decisions.

H<sub>4</sub>: From the operation techniques to IR and HCR stores, the higher of the customer service quality, the better of the customer satisfaction will reflect on the shopping preferences.

When this study formulates the objectives for channel of retailers, we apply the appropriate techniques in the most suitable manner to obtain the samples from the hypermarket. The tools of Likert scale (Barnett, 1991; Dillman, 2000) and Semantic scale (Q'Quin and Besemer, 2006) are employed into the study of data collection. The Likert scale is used to measure attitudes, preferences, and subjective reactions. Matell and Jacoby (1971) pointed

out the Likert scale is used to measure attitudes, preferences, and subjective reactions. It is generally a good idea to run a pilot survey so as to eliminate any ambiguous statements, negative statements or statements (Barnett, 1991; Dillman, 2000). Q'Quin and Besemer (2006) developed the CPSS (Creative Product Semantic Scale) to help business in testing for marketability, new product design, product improvement and enhancement of advertisements. Using the CPSS, semantic scale maintained benchmark product ratings on all of a company's brands and models of brand equity to the target customer' shopping preferences. Im and Workman (2004) suggested that firms that carefully monitor competitors' activities may focus too much on novelty and not enough on resolution. Thus, this study tries to find the competing model through structural equation modeling for the retailers to make a good decision for their leadership.

## METHODS

### Sample and data collection

This research employed a questionnaire survey approach to collect data and samples from the customers who go shopping in international retail stores of Carrefour (IR), and the host country retailer of Taisuco (HCR). About 431 valid samples are taken to examine the interaction of shopping preference. Of the 460 questionnaires issued in the retail stores, this study received 460 responses. Twenty-nine were incomplete. The types of questionnaires are designed using the Semantic differential scale (225 copies, delete 5 copies as invalid) and the Likert 7-points scale (206 copies, delete 24 copies as invalid) to measure the convergent and discriminate validity. The sample sizes play an important role in the estimation and interpretation of SEM results (Sharma, 1996; Hair et al., 1998). Byrne (1998) comments that over 200 to 300 sample sizes are needed for SEM model and stability in results. Campbell and Fiske (1959) proposed the analysis of multi-trait multi-method (MTMM) matrix for the purpose of studying convergent and discriminate validity of measures (Pedhazur and Schmelkin, 1991). While prior research has used the MTMM to scale consumers' perceived values by confirmatory factor analysis, this study uses MTMM to scale the five constructs in order to measure the convergent and discriminate validity.

### Measures and definition

The efficiency of channel retail was calculated by DEA to measure the "best practice" based performance analysis is calculated on an aggregate basis, an assortment basis, and on a regional assortment basis (Grewal et al., 1999). This study takes the input factors including those pertaining to store formats, the information technology, and communication with customers, category assortment, atmosphere (feeling and thinking) of store image are used to measure the store operation of IR and HCR (Grewal et al., 1999). The construct of customer loyalty is measured by factors such as customers' shopping preferences and price perceived (Zeithaml et al., 1996; Yoo et al., 2000, Arnett et al, 2003); the construct of service quality is measured through four main dimensions – tangibles, reliability, responsiveness and assurance by SERVQUAL (Zeithaml, 1988; Zeithaml et al, 1996; Rust et al, 1995) and concordance with items of RSQS modification (Gaur and Agrawal, 2006). The shopping preference extracts the indexes of retailer equity (Arnett et al., 2003) and the reflective items for

**Table 1.** Items definition for the operation construct of retailers

Dimension	Item and brief definition
Format	<ol style="list-style-type: none"> <li>1. The convenience of store's (ex: Carrefour) shopping environment is important for the customer.</li> <li>2. The customer will care about the movement of the store device.</li> <li>3. The customer will care about the channel's store numbers when shopping.</li> </ol>
Information technology	<ol style="list-style-type: none"> <li>1. The store should deliver information in a highly efficient way.</li> <li>2. The stores (Carrefour, RT-mart) promotion information is clear.</li> <li>3. The store has good communication with customers.</li> </ol>
Category management	<ol style="list-style-type: none"> <li>1. One stop shopping is easy in the store.</li> <li>2. Category management skill is quite important for consumers.</li> <li>3. The more SKU in stores, the better for consumers.</li> </ol>
Store image	<ol style="list-style-type: none"> <li>1. The selling price in the stores is above the average market price.</li> <li>2. The atmosphere and operation satisfies the customers.</li> <li>3. Good layout of the store is quite important for customers..</li> </ol>

shopping intention (Baker et al., 1992). More detailed definitions of operation for each construct are illustrated in the following:

**Retail stores:** For international retail stores, they incorporate their supply chain and its massive power of marketing mix to create programs for gaining customer loyalty. As mentioned, those examples are buy-two-get-one-free promotion, shopping bonus, and member's refund, etc (Levy and Weitz, 1996). This reveals how important information technology is (Table 1). Retailer formats and information technology are the two dimensions used to measure the international of China's developing economies (Goldman, 2001).

Goldman (2001) developed the Category Management to measure the capability of retailer's operation and the degree of compatibility. The Category Management even has extended use for a simple format extension and store image (atmosphere). For store image, Collins-Dodd and Lindely (2002) developed the Multi-item measures of store brand image - generalized attitude toward brands was subject to a principal components' factor analysis to determine dimensionality. This study extracted the items such as packaging, low prices (value for money), store operation, and layout to customer satisfaction to measure the store image.

**Service quality:** Once a service strategy is in full operation, it should be monitored. There has been more interest in measuring the quality of service retailing. Dabholkar (1996) develop RSQS (Retail Service Quality Scale) as a measure of service quality for retail stores. Gaur and Agrawal (2006) modified the RSQS and SERVQUAL to measure the retail service quality. There has been more interest in measuring the service quality of retailing, but it is never far away the most well-known measurement tool of SERVQUAL (Parasuraman et al., 1988). Zeithaml et al. (1996) developed the service quality items with customers' behavioral intentions dimension to examine how strong evidence of their being influences by service quality (Table 2). For better understanding, this research uses determinant dimensions from modifications for refining the present scales about SERVQUAL and RSQS (Guar and Agrawal, 2006) to measure service quality in retails.

**Loyalty:** As stated, customers' loyalty is defined as an intense commitment to re-buy a favored product or service constantly,

regardless of any situational influences and marketing efforts that cause switching behavior (Oliver, 1997). Zeithaml et al. (1996) stated that customers' loyalty contains five favorable behavioral-intentions items (Table 3): saying positive things about the company, recommending the company to someone, encouraging friends and relatives to do business with the company, considering the company the first choice from which to buy services, and doing more business with the company in the next few years.

Customers like to re-buy in the same store after they acquire merchandise (Baker et al., 1992).

They show a higher intention to re-shop and a higher level of satisfaction when they recommend a store to others. Price perceived value has been widely discussed at a generic level (e.g., providing value), particularly in the practitioner literature (Leslie et al., 2006).

It often be discussed with satisfaction of meeting customers' needs and infers the customers' value to be the dimension of price-perception.

**Shopping preference:** Retailer equity should be related positively to shopping preference (Keller, 1998; Table 4).

The impact model of retailing is based on the tasks of getting consumers from your trading area into your store and converting these consumers into loyal customers in the most efficient manner possible (Dune et al., 2002).

This study also adopts the measurable items reflect on shopping preference (Baker et al., 1992).

## RESULTS AND DISCUSSION

### Reliability and validity

This study makes use of the structural equation modeling to examine the model fitness through the AMOS analysis tool (Sharma, 1996; Hair et al., 1998). Descriptive statistics with Likert 7 points and Semantic 7 points scales, reliability, validity, and MTMM matrix are mentioned in the Table 5:

**Table 2.** Items in the dimensions for the construct of service quality.

Dimension	Item and brief definition
Tangibles	<ol style="list-style-type: none"> <li>1. Retailers have up-to-date equipment.</li> <li>2. Retailers' physical facilities are visually appealing.</li> <li>3. Retailers' employees are well dressed and appear neat.</li> <li>4. The appearance of the physical facilities is in keep with the type of services provided.</li> </ol>
Reliability	<ol style="list-style-type: none"> <li>1. When retailers promise to do something by a certain time, they do so.</li> <li>2. When customers have problems, retailers are sympathetic and reassuring.</li> <li>3. Retailers are dependable.</li> <li>4. Retailers provide their services at the time they promise to do so.</li> <li>5. Retailers keep their records accurately.</li> </ol>
Responsiveness	<ol style="list-style-type: none"> <li>1. Retailers tell the customer exactly when service quality is performed.</li> <li>2. Consumers do not receive prompt service from their employees. Employees are not active to help customers.</li> <li>3. Employees are not too busy to respond to customer requests promptly.</li> </ol>
Assurance	<ol style="list-style-type: none"> <li>1. Merchandise at the stores is very good value.</li> <li>2. The prices at the channel store are acceptable.</li> <li>3. Customers would consider the merchandise at the channel stores to be a good buy.</li> <li>4. If the other retailers mark down their prices, I still buy it from the stores.</li> <li>5. The price level will influence my purchase intention to this store.</li> </ol>

**Table 3.** Items with brief definition in the dimensions of Loyalty.

Dimension	Item and brief definition	Author
Re-buy	<ol style="list-style-type: none"> <li>1. Customers will not buy from other retail stores if they can buy the same item at their favorite stores.</li> <li>2. Even when items are available from other retailers, customers tend to buy from the same store.</li> <li>3. Customers will buy from the retail stores that are their first choice.</li> <li>4. Customers will continue to buy from the same store.(re-buy)</li> <li>5. Customers satisfied with the store do not change their preferences.</li> </ol>	Baker et al., 1992; Zeithaml et al., 1996; Oliver, 1997; Yoo et al., 2000.
Price-perception	<ol style="list-style-type: none"> <li>1. Merchandise at the stores is very good value.</li> <li>2. The prices at the retail store are acceptable.</li> <li>3. Customers consider the merchandise at the stores to be a good buy.</li> <li>4. If the other retailers mark down their prices customers still buy from the favorite stores.</li> <li>5. The price level will influence customer purchase preference at this store.</li> </ol>	Fornell C. et al.,1996 Krishna A. et al,2002

Campbell and Fiske (1959) proposed the policy of convergent validity as Correlations in the reliability diagonal should be the highest in the matrix, and that in the validity diagonals should be significantly different from

zero. Table 5 displays that reliability correlations are the highest in the matrix and the discriminate validity also meets the policy. To support the discriminate validity, Jabs (1996) referenced to Campbell and Fiske (1959) to

**Table 4.** Items with brief definition in the dimensions of shopping preference.

Dimensions	Items and brief definition
Attitude	1. The customers are likely to buy merchandise in the store. 2. The customers are willing to buy gifts for their friends. 3. The customers prefer to buy the store's commodities when quality is higher.
Behavior	1. Customers often purchase the unique commodities from the store. 2. The customers are willing to purchase in the store for the value-added service. 3. Customers will recommend these stores to their friends.

**Table 5.** MTMM matrix and reliability analyses

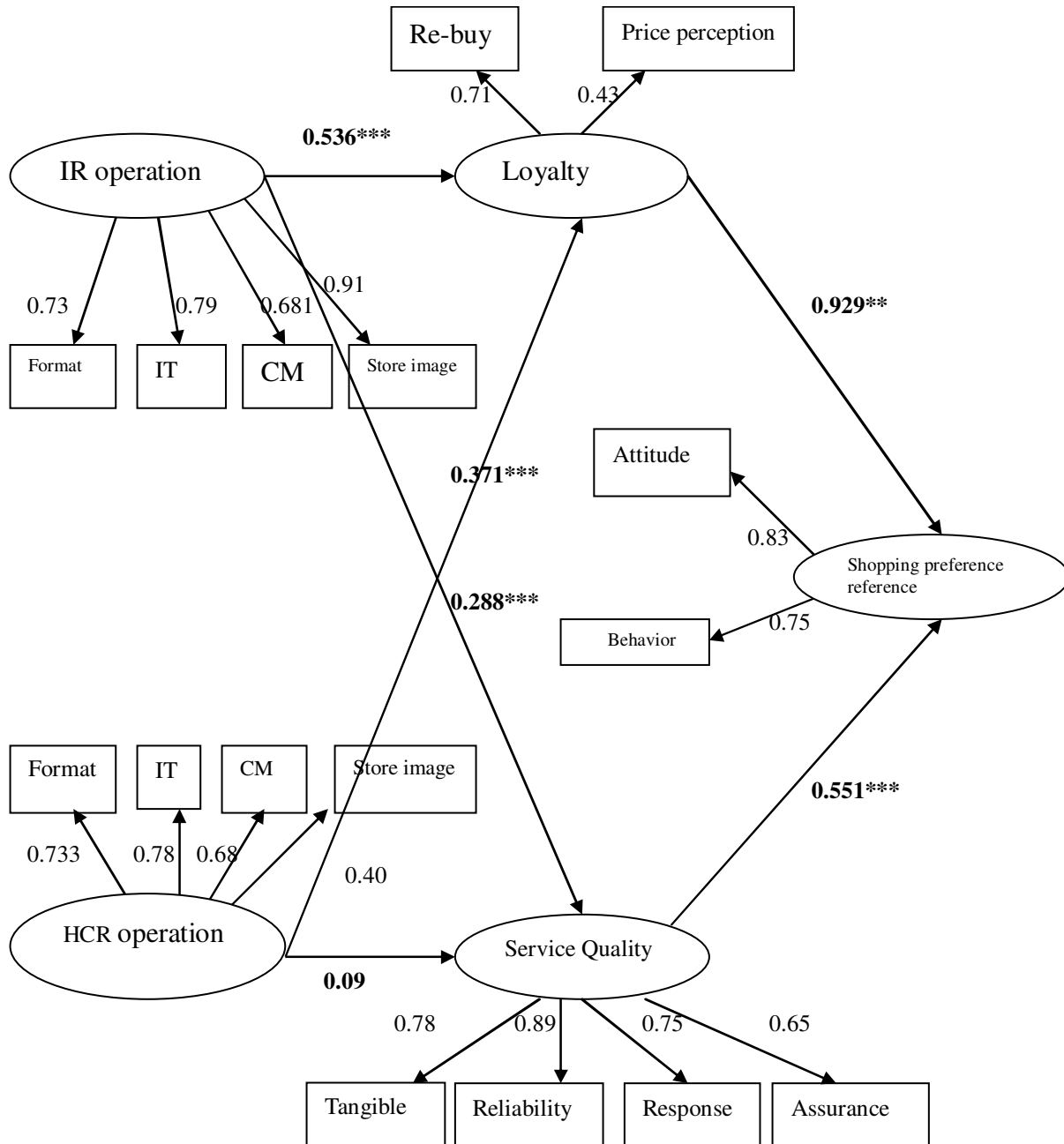
			Likert					Semantic				
			IR	HCR	Ly	SQ	SP	IR	HCR	Ly	SQ	SP
			A1	B1	C1	D1	E1	A2	B2	C2	D2	E2
Likert	IR	A1	0.698									
	HCR	B1	0.091	0.710								
	Ly	C1	0.287**	0.249**	0.686							
	SQ	D1	0.206**	0.208*	0.305**	0.892						
	SP	E1	0.221**	0.216***	0.605**	0.234**	0.874					
Semantic	IR	A2	0.445	0.046	0.055	0.012	0.032	0.952				
	HCR	B2	0.153*	0.450	0.075*	0.104	0.119	0.382**	0.903			
	Ly	C2	0.090	0.081	0.341	0.074	0.101	0.432**	0.393**	0.622		
	SQ	D2	0.029	0.048	0.11	0.390	0.009	0.425**	0.129	0.360**	0.884	
	SP	E2	0.058	0.006	-0.020	-0.057	0.487	0.523**	0.198**	0.474**	0.613**	0.847
Cronbach's alpha			0.698	0.710	0.686	0.892	0.874	0.952	0.903	0.622	0.884	0.847

\*P&lt;0.05; \*\*P&lt;0.01.

argue that the policy of it are: The validity diagonal correlations should be higher than other values in its column and row in the same hetero-method hetero-trait triangle, like the value of 0.445(A1-A2), 0.450(B1-B2), 0.341(C1-C2), and 0.390(D1-D2); the validity diagonal correlations 0.153(A1-B2) should be higher than all the other correlations in the mono-trait hetero-method triangles (Lewis et al., 2003). There are correlations 0.046(B1-A2), 0.09(E1-D2), 0.032(E1-A2) that differ in hetero-trait hetero-method triangle which is expected to be the lowest in the matrix and reflects discriminate validity. The same general pattern of trait interrelationship could be seen in all the hetero-trait hetero-method and hetero-trait mono-method triangles. Table 5 displays that the coefficients of Cronbach alpha are all above 0.6. The measurement of reliability is above the recommended minimum standard of 0.6 (Nunnally, 1978; Baker et al., 2002). It shows higher reliability coefficient for the Likert scale; even the semantic differential scale has better coefficients of Cronbach alpha: 0.952, 0.903, 0.622, 0.884, and 0.847 respectively.

### Path analysis

About the path analysis, this research takes structural equation model (SEM) to analyze the model fitness and develop the competing model. We take the tool of Amos 5.0 to examine the paths, diagram, and get the correlation of each path and measurement. In this research, after testing the structure equation modeling of operation of IR and HCR to their loyalty (Figures 1, 2 and 3, we find both dimensions are in significant level under Semantic (0.443\*\*\*, 0.398\*\*\*)) and Likert scales (0.536\*\*\*, 0.371\*\*\*). Even though the operation of HCR is less, significant compared to IR, still in significant level. We can conclude that the hypothesis H<sub>1a</sub> and H<sub>1b</sub> are accepted. When testing the constructs of service operation about IR and HCR to service quality, we find out the International retailers are contemporaneously significant within the scales (0.288\*\*\*, 0.571\*\*\*, separately). But while the Host Country retailers are not the same with the IR construct, the result displays the HCR in Likert 7-points and semantic differential method scale are not significant (0.09, and



**Figure 2.** Structural Equation Model for operation of IR and HCR, loyalty, service quality, and shopping preference by likert scale.

0.056, Tables 7 and 9). We cannot conclude with hypothesis H2b; that stores of Host country retailers have significant effect on service quality in the retailers. For H<sub>2a</sub> we can conclude the operation of IR stores has significant effect on service quality. It is significant under the Likert scale, and significant in semantic differential scale.

This research examines the intermediary variances of loyalty and service quality to shopping preferences. This research reveals, significantly, that in the model, simultaneous, the loyalty (LY) to shopping preferences (SP) is

$0.929^{***}$ , and service quality (SQ) to shopping preference (SI) is  $0.551^{**}$  by the Likert scale, and  $0.476^{**}$ ,  $0.570^{**}$  respectively by semantic differential scale (Tables 7 and 9).

This means that the test supports our hypothesis H<sub>3</sub>; customers' loyalty will have positive effect on the customer shopping preference in the IR and HCR stores. It also supports hypothesis H<sub>4</sub>; that for the IR and HCR stores, the higher the customer service quality, the better the customer satisfaction will reflect on the shopping



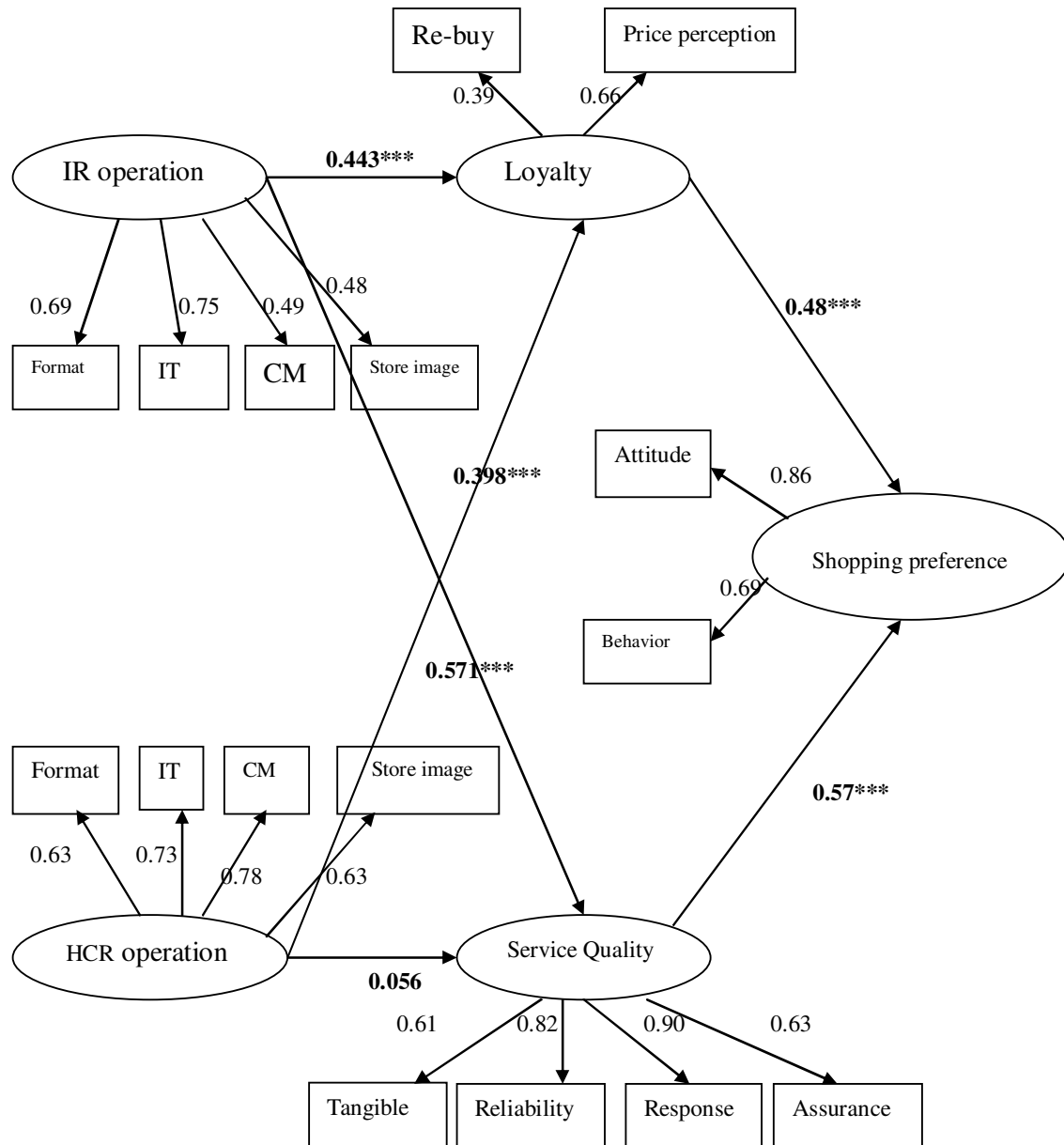


Figure 3. SEM for operation of HCR, loyalty, services quality, and shopping preference by semantic scale.

Table 6. Model goodness of fit measures for SEM by Likert scale.

Variables	Std. Regression weight ( $\lambda$ )	Critical Ratio	p-value	Cronbach's alpha	Variance extracted
<b>Exogenous variables(<math>\xi</math>)and observed variables(<math>\lambda x</math>)</b>					
IR→Store image	0.910	--	--	0.698	0.889
IR→Category management	0.680	4.210	0.000***		
IR→Information Tec	0.790	4.078	0.000***		
IR→Formats	0.729	4.970	0.000***		
<b>Endogenous variables(<math>\lambda y</math>)</b>					
HCR→Store image	0.402	--	---	0.710	0.893
HCR→Category management	0.678	4.884	0.000***		

Table 6. Contd.

HCR→ Information Tec	0.781	5.034	0.000***		
HCR→ Formats	0.733	4.174	0.000**		
<b>Endogenous(<math>\eta</math>)and observed variables(<math>\lambda y</math>)</b>					
Loyalty→Re-Buy	0.713	--	--	0.686	0.681
Loyalty→Price perception	0.430	5.729	0.000***		
Service quality→Tangible	0.786	--	--	0.892	0.768
Service quality→Reliability	0.890	10.155	0.000***		
Service quality→Response	0.750	10.081	0.000***		
Service quality→Assurance	0.650	13.822	0.000***		
Shopping preference→Attitude	0.750	--	--		
Shopping preference→Behavior	0.831	9.644	0.000***	0.874	0.936

\*\*P&lt;0.05; \*\*\*P&lt;0.01

Table 7. Model goodness of fit measures for SEM by Likert scale.

Variable	Std. regression weights	Critical ratio	p-value	Result
<b>Hypothesized relationships:</b>				
<b>Exogenous variables(<math>\xi</math>) and Endogenous(<math>\eta</math>)</b>				
H <sub>1a</sub> : I R operation and Loyalty	0.536	3.519	0.000***	Supported
H <sub>1b</sub> : HCR operation and Loyalty	0.371	3.123	0.001***	Supported
H <sub>2a</sub> : I R operation and Service quality	0.288	2.746	0.007***	Supported
H <sub>2b</sub> : HCR operation and Service quality	0.09	1.256	0.209	Not Supported
<b>Hypothesized relationships:</b>				
<b>Endogenous(<math>\eta</math>)and Endogenous(<math>\eta</math>)</b>				
H <sub>3</sub> : Loyalty and Shopping Preference	0.929	3.437	0.000***	Supported
H <sub>4</sub> : Service quality and Shopping Preference	0.551	3.137	0.006***	Supported
<b>Model fit summary</b>				
Model indicator	Result	Criterion		
X <sup>2</sup> /df	2.036	<3		
GFI (Goodness of Fit Index)	0.904	>0.9		
AGFI(Adjusted Goodness-of-Fit Index)	0.858	>0.8		
CFI (Comparative Fit Index)	0.906	>0.9		
NFI (Normed Fit Index)	0.835	>0.9 , marginal		
RMSEA	0.050	<0.08		

\*\*P&lt;0.05; \*\*\*P&lt;0.01

preferences (Tables 7 and 9). Tables 6 and 8 display the results of exogenous variables( $\xi$ )and observed variables ( $\lambda x$ ) and endogenous( $\eta$ )and observed variables( $\lambda y$ ). It displays the path coefficients, the critical ratio for regression weight, and the significant level for each dimension, and satisfies the condition for all variance extracted is almost over 0.7 (Fornell and Larcker, 1981). The goodness of SEM results is listed in Tables 7 and 9. We find that GFI= 0.904 in the Likert 7-points scale, approximate to 0.897 in semantic differential scale. RMR = 0.051, and 0.08 is less than 0.08. NFI = 0.853, and 0.835, IFI = 0.908, and 0.916, and CFI =0.906, and

0.915 are very good to the criteria value = 0.9 (Bollen and Stine, 1993). For the normed Chi-square ( $\chi^2$ ) measures with computed values (CMIN/DF) which are 2.036, and 2.114, comply with the criteria and recommended level (Bollen, 1993; Hair et al., 1998) shown in Table 7 and 9. This reveals the model is in very good fit in the research. The SEM path figures and results of the model fitness are presented in Tables 10 and 11. Thus, this study reveals that Likert7-points scale has a better model fitness than the semantic differential scale by the structural equation

**Table 8.** Model goodness of fit measures for SEM by Semantic.

Variable	Std. regression weight ( $\lambda$ )	Critical ratio	p-value	Cronbach's alpha	Variance extracted
<b>Exogenous variables(<math>\xi</math>) and observed variables(<math>\lambda x</math>)</b>					
IR→store image	0.480	--	--	0.952	0.8170
IR→category management	0.491	5.063	0.000***		
IR→information Tec	0.754	6.147	0.000***		
IR→formats	0.691	6.006	0.000***		
HCR→store image	0.765	--	---	0.903	0.7937
HCR→category management	0.783	10.577	0.000***		
HCR→ information Tec	0.729	10.017	0.000***		
HCR→ formats	0.632	8.737	0.000**		
<b>Endogenous(<math>\eta</math>) and observed variables(<math>\lambda y</math>)</b>					
Loyalty→Re-Buy	0.391	--	--	0.622	0.8440
Loyalty→Price perception	0.663	4.213	0.000***		
Service quality→Tangible	0.613	--	--	0.884	0.7166
Service quality→Reliability	0.817	14.502	0.000***		
Service quality→Response	0.897	9.853	0.000***		
Service quality→Assurance	0.634	10.293	0.000***		
Shopping preference→Attitude	0.857	--	--	0.847	0.7851
Shopping Preference→Behavior	0.686	9.644	0.000***		

\*\*P&lt;0.05; \*\*\*P&lt;0.01

model (SEM); but both of the models are accepted for good fitness.

## CONCLUSIONS

### Theoretical and managerial implications

In this study, we extend the operation of International retail (IR) and Host country retail (HCR) stores to develop a good model measurement of shopping preference, which is defined by the intermediary variances of loyalty and service quality. Under the reliability and validity measure by the MTMM, this study finds the reliability, convergent validity, and the discriminate validity fit well with the policy of Jabs (1996). Channel Retailers can take the model as a competing benchmark to better understand customer shopping preference.

From the operation of international retail store to the constructs of loyalty and service quality, we can determine the store formats and information technologies are quite important. The customer's loyalty indicated by the re-buy and price perception still influence the market of the retailers under the examination for IR and HCR regression weight and p-value.

However, for the HCR, this study finds that, it is not supported in the dimension of service quality under the

Semantic differential and Likert scale. That is verified in Tables 7, and 9, the p-value is 0.209 and 0.451 not significant. We can understand the HCR are not so strong in the operation compared to the systemizing and standardizing of IR. Even the IR has better integration with customer relationship to service quality. The host country retailers may have good category management, and slanted the atmosphere, operation, and layout for customer satisfaction (Collins-Dodd and Lindely, 2002), but they are still not so clear in their knowledge of the formula for the integration about CRM (customer relationship management), especially in the operation. The host country retailers should strengthen their systems and standards of operation from top to bottom in order to improve their service level to customers. In this study, the results show that the HCR are not so well organized and technically proficient in staff to customer communication in their stores. On the contrary, the international retailers have the standard of operation in service quality when staff faces to customers.

By looking at the annual reports of retailing giants such as Sam's Club and Price-Costco, researchers can observe that they have soaring sales and profits in these few years. Even the international chained store has the same situation. The host country retailers are not so integrated with the field of service quality when customers visit the store physically. That supports the idea that

**Table 9.** Model goodness of fit measures for SEM by Semantic scale.

Variable	Std. regression weights	Critical ratio	p-value	Result
<b>Hypothesized relationship :</b>				
<b>Exogenous variables(<math>\xi</math>) and endogenous(<math>\eta</math>)</b>				
H <sub>1a</sub> : IR operation and Loyalty	0.443	3.088	0.001***	Supported
H <sub>1b</sub> : HCR operation and Loyalty	0.398	3.271	0.002***	Supported
H <sub>2a</sub> : IR operation and Service quality	0.571	5.136	0.000***	Supported
H <sub>2b</sub> : HCR operation and Service quality	0.056	0.754	0.451	Not Supported
<b>Hypothesized relationship:</b>				
<b>Endogenous(<math>\eta</math>) and endogenous(<math>\eta</math>)</b>				
H <sub>3</sub> : Loyalty and Shopping Preference	0.476	3.790	0.000***	Supported
H <sub>4</sub> : Service and Shopping Preference	0.570	7.677	0.000***	Supported
<b>Model fit summary</b>				
Model indicator	Result	Criterion		
X <sup>2</sup> /df	2.114	<3		
GFI (Goodness of Fit Index)	0.897	>0.9 marginal		
AGFI(Adjusted Goodness-of-Fit Index)	0.856	>0.8		
CFI (Comparative Fit Index)	0.915	>0.9		
NFI (Normed Fit Index)	0.853	>0.9, marginal		
RMSEA	0.080	<0.08		

\*\*P&lt;0.05; \*\*\*P&lt;0.01

**Table 10.** A comparison of Semantic and Likert scale measurements.

Indicator	Criterion	Semantic	Likert
CMIN		205.049/97	170.994/84
Chi-square /DF	< 3	2.114	2.036
GFI	> 0.9	0.897	0.904
AGFI	> 0.9	0.856	0.858
RMR	< 0.05	0.080	0.050
RMSEA	< 0.1	0.071	0.051
NFI	Recommended level :0.9	0.853	0.835
IFI	Recommended level :0.9	0.916	0.908
CFI	Recommended level :0.9	0.915	0.906

they need to learn and improve their operation techniques in the field of store formats, information technology, category management, and store image to improve the shopping environment. They need to set the store device as an arena with well organized information techniques to touching customers, show the optimal merchandise mix (good breadth and depth of variety) to value-added customers' store image.

About the service quality, this study find out that the SERVQUAL (Parasuraman et al., 1988) and concordance with items of RSQS modification (Gaur and Agrawal, 2006) are effective and offer a good measure for service quality of retailers, the Cronbach's alphas is 0.892, and

0.884 respectively in different scales. It is differential to the prior researchers argued that the SERVQUAL or RSQS failed to measure service quality of retail stores (Dabholk et al., 1996; Kaul, 2005). This results is more of a tendency to support Gaur and Agrawal (2006) who suggests the modifications that would help in refining the present scales to be produced as valid, accurate and acceptable measures of service quality across different retail formats. Moreover, this study develops the SERVQUAL and concordance with items of RSQS modification is quite physical support retailers to measure their service quality.

From the point of managerial implications, it implies

**Table 11.** The results of hypothesis test.

The hypothesis	Likert	Semantic
H <sub>1a</sub> : The operation of international retail (IR) stores will have positive effect on customer loyalty.	Supported	Supported
H <sub>1b</sub> : The operation of host country retail (HCR) stores will have positive influence on customers' loyalty.	Supported	Supported
H <sub>2a</sub> : The operation of IR stores has significant effect on store's service quality.	Supported	Supported
H <sub>2b</sub> : The operation of HCR store has significant effect on store's service quality.	Not supported	Not supported
H <sub>3</sub> : Customers' loyalty will have a positive effect on the customer shopping preference in the IR and HCR stores.	Supported	Supported
H <sub>4</sub> : From the operation techniques to IR and HCR stores, the higher of the customer service quality, the better of the customer satisfaction will reflect on the shopping preference.	Supported	Supported

that the HCR are not so strong in the fields of customer response to service quality, providing prompt service, and in dependably and accurately in performing the promised service.

For both IR and HCR store there is a shortage of measurements to the service model. This proposed model displays the method of SEM and the level and significance of the accuracy of model fit, especially in the Likert scales (GFI=0.904, IFI=0.908) and the semantic scale (GFI=0.897, IFI=0.916). It reveals that the Host country retailers should focus on the level of service quality as much as they can. The retailer of HCR should focus not only on the facility to imitate the IR, but also put their service operation up to 90% or on more to improve their service quality. If retailers offer a better service system and precise feedback program, better customer satisfaction will follow.

The retailers can focus on the operational techniques improvement and innovation to market, and set up their formats, category management, information technology, and store image to mark-up their market share. We might be surprised how many great retailers open their doors to entrepreneurs and company officials who are interested in benchmarking or learning how they service. This study offers the key elements to retailers, and seems to relish crossing over the loyalty and service quality to influence the customers shopping preferences. For international business of retailers, it is not just a question of purchasing power—it is customer service across the board (Chen, 2009). The leader of retailers should from mind to targeting the goal and incremental market value to service more customers shopping preferences.

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