Effects of service quality, brand image on consumers' continuous purchase intention at supermarkets in Tra Vinh City

TRINH DUC HUY * & HO MY DUNG

Tra Vinh University

Submitted: October 04, 2023 - Revised: October 26, 2023 - Accepted: November 08, 2023

(*) Correspondence: trinhduchuy1998@gmail.com

Abstract:

The study investigated the relationship between service quality, brand image, satisfaction, and consumers' continuous purchase intention. We collected research data from 258 consumers who bought goods at supermarkets in Tra Vinh City. Quantitative research methods, including Cronbach's Alpha for scale reliability assessment, exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and structural equation modeling (SEM), were employed to analyze the multidimensional relationships among the factors. The results showed that both service quality and brand image positively affect satisfaction and consumers' continuous purchase intention. Furthermore, the outcomes also disclosed that brand image had a positive relationship with consumers' continuous purchase intention.

Keywords: ***Service quality, brand image, satisfaction, continuous purchase intention.***

1. Introduction

The service industry and the retail sector have emerged as driving forces in economic development in recent years. In the current context of fierce competition among businesses, they have continuously strived to deliver superior service quality and establish an exceptional brand image to achieve customer satisfaction and trust (Dam Sao Mai et al, 2021). Several studies have substantiated the noteworthy positive impact of service quality on customer satisfaction. (Nguyen Thi Kim Hiep et al, 2019; Waqas Mehmood & Owais Shafiq, 2015; Koo D.M, 2003). In a fiercely competitive economic landscape, the notions of customer satisfaction and brand loyalty have become salient concerns that hold significant weight for business enterprises. Consequently, the endeavor of cultivating a reputable brand identity and enticing prospective clientele continues to be an imperative undertaking for marketing managers across all organizational realms (Martin N.K, 2015). In addition to service quality, a company with a good Brand Image has important and positive implications for satisfaction (Hatane Semuel et al, 2019). Related studies have revealed that a company's brand, which is considered one of the intangible resources, plays an important role in promoting satisfaction (Martin N.K, 2015). A company's brand plays an important role in promoting satisfaction and two factors have a positive impact on customers' purchase intention of customers of the mobile phone industry in Pakistan (Waqas Mehmood & Owais Shafiq, 2015).

During the global economic integration process, especially after Vietnam joined the WTO,

Vietnam's economy is growing more and more vibrantly. According to data from the General Statistics Office, as of the end of December 2021, the country had 1167 supermarkets and 254 commercial centers. With outstanding businesses like Big C, Lotte Mart, AEON, Saigon Co.op, and E-Mart. In parallel with the development, retail supermarkets have been facing many obstacles. In 2021, the outbreak of the Covid-19 epidemic has caused businesses in the retail industry to face many difficulties. Currently, there is intense competition between retail supermarkets and shopping centers, traditional markets, retail stores, and both domestic and foreign retail business entities. The root cause of this competition stems from the new regulations implemented by the Vietnamese government. Since the beginning of 2015, foreign retail enterprises have been permitted to establish 100% foreign-owned businesses in Vietnam (Tran Minh Tanh, 2018). As a result, supermarkets of various sizes have emerged in different locations throughout the country.

Tra Vinh is a province situated along the coast in the eastern region of the Mekong Delta. Currently, according to the General Statistics Office, the population of Tra Vinh City is approximately 160.310 people, with about 85.513 individuals in the working age group. During the period from 2016 to 2020, the average GDP growth rate of Tra Vinh province achieved a relatively high pace compared to the national average and the Mekong Delta region, reaching 11.22%. Along with the economic development of the city, the shopping demand of the residents has been increasing, and their shopping habits have also changed towards a more modern and sophisticated approach. Consumers are increasingly concerned about health needs, clean products, shopping environments, promotional programs, convenience, and customer service. More than ever, improving the quality of retail services is essential to compete with both domestic and international rivals. Retail is a highly specialized industry as it involves a combination of products and services. Numerous prior studies have demonstrated that increasing customer retention rates by 5% can lead to a significant profit enhancement, ranging from 25% to 95%. Therefore, customer retention to encourage ongoing shopping is of paramount importance for the development of sustainable business. In the context where consumers have abundant choices for shopping and increasingly higher demands for service quality, businesses need to pay attention to which factors to survive and thrive. Is it necessary for businesses to enhance their brand image? How can they retain existing customers? Therefore, the research on «Effects of service quality, brand image on satisfaction and continuous purchase intention at supermarkets in Tra Vinh City» is truly imperative.

2. Theoretical foundations

2.1. SERVQUAL model

Parasuraman and colleagues (1985, 1988) are pioneers in researching service quality in marketing with specificity and detail. These researchers proposed the SERVQUAL model, a framework comprising five dimensions of service quality. According to the SERVQUAL service quality model, service quality is determined by the gap between customers' expectations of service and their perceived reality of the service received after experiencing the product or service. SERVQUAL is designed to capture customers' expectations and perceptions of a service along five dimensions believed to represent service quality.

The first gap arises when there is a disparity between the management's perception of this service and customers' expectations of service quality.

The second gap occurs when service companies struggle to translate customers' expectations into their own unit's perceived standard of service quality. In reality, some business units may comprehend customer expectations, but they may not always convert these expectations into specific quality criteria and deliver them according to customer expectations.

The third gap is present when there is a discrepancy between service standards and the actual service provided to customers. Frontline employees play a crucial role in shaping service quality during customer interactions. However, not all employees can consistently fulfill their
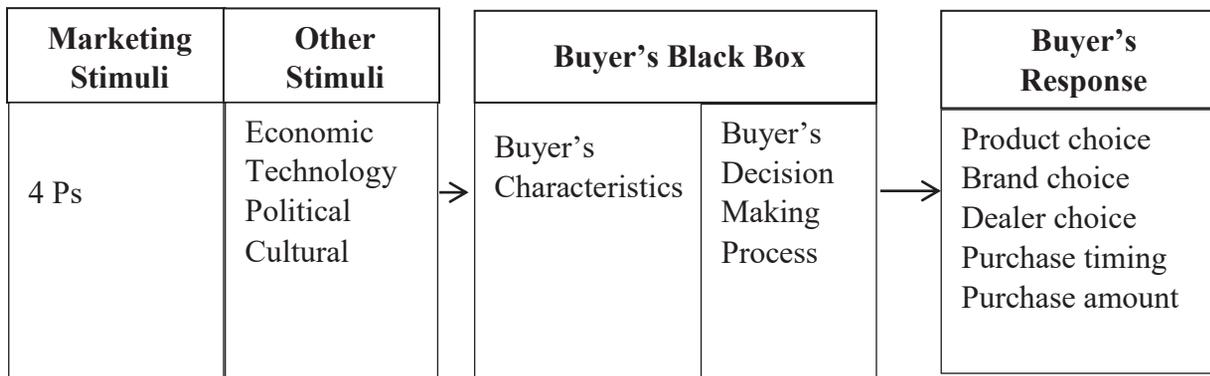
Marketing Stimuli	Other Stimuli	Buyer's Black Box		Buyer's Response
4 Ps	Economic Technology Political Cultural	Buyer's Characteristics	Buyer's Decision Making Process	Product choice Brand choice Dealer choice Purchase timing Purchase amount

Figure 1. Buying behavior model

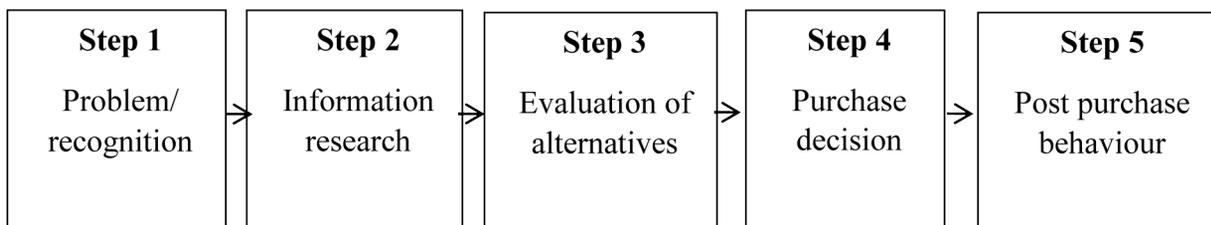| Step 1	Step 2	Step 3	Step 4	Step 5
Problem/ recognition	Information research	Evaluation of alternatives	Purchase decision	Post purchase behaviour

Figure 2. Consumer decision making process

Source: Philip Kotler, 2007

tasks according to the established criteria.

The fourth gap emerges when advertising and informational mediums influence customers' expectations of service quality. Customer expectations are elevated through promises of quality made by manufacturers and suppliers through promotional campaigns and incentives. Nevertheless, these promises can also diminish customer expectations if they are not fulfilled as pledged.

The fifth gap manifests when there is a variance between customers' expected and perceived service quality. This fifth gap is pivotal in defining service quality. Service quality is deemed impeccable when customers perceive no distinction between their anticipated and experienced service quality upon consuming a service.

2.2. Theory of consumer behavior

According to Philip Kotler (2007), consumer behavior is influenced by both marketing factors (product, price, distribution, promotion) and external factors (economics, technology, politics, culture), thereby impacting the characteristics (cultural, social, personality, psychological) as

well as the buyer's decision-making process (problem recognition, information search, evaluation, decision, purchasing behavior). In this context, if the seller meets the necessary criteria for the buyer, the result is a specific shopping decision (product category, brand, quantity, timing, place of purchase). (Fig. 1)

The stages in the process of initial purchase were introduced by Engel, Blackwell, and Kollat in 1968. In subsequent evolution, Professor Philip Kotler (2011) presents the Consumer Purchase Decision model. The stages of consumer behavior encompass. (Fig.2)

3. Proposed research model and hypothesis
3.1. Proposed research model

Based on existing models and successful research endeavors, the author has referenced the SERVQUAL service quality model by Parasuraman et al (1985, 1988). Additionally, the author has adopted and selectively incorporated factors from previous studies, such as Nguyen Thi Kim Hiep et al (2019), who investigated factors influencing customer satisfaction with supermarket service quality; Waqas Mehmood & Owais Shafiq (2015), who examined the
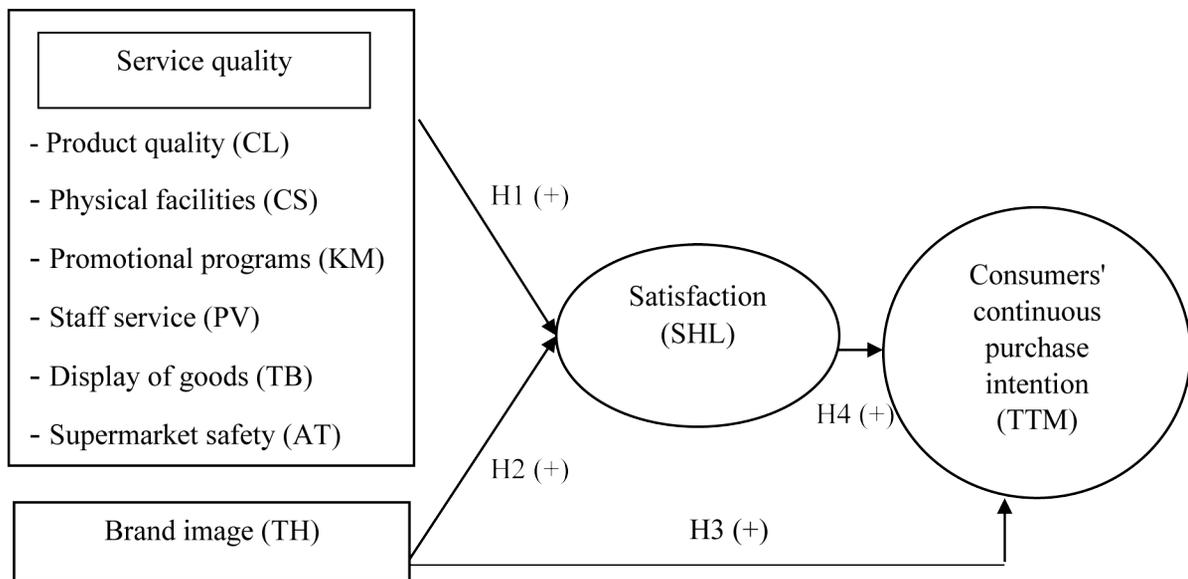
Figure 3. Proposed research model

Source: Compiled by the author, 2023

impact of customer satisfaction, service quality and brand image on purchase intention; Ho Thi Huong Lan & Hoang Dang Hoa (2016), who explored the relationship between service quality, customer satisfaction, and customer loyalty. The synthesized information provides a solid scientific foundation for the development of the proposed research model.

3.2. Research hypothesis

Service quality has been increasingly receiving heightened attention from scholars in the field of service marketing literature. It is defined as the aggregate of features and characteristics of a service that consumers anticipate or accept (Armand V. Feigenbaum, 1945). Parasuraman et al (1988) state that «Service quality is the gap between customers' expectations of the service they are receiving and their actual perceptions of the service they experience.» Some research confirmed the link between service quality and satisfaction (Nguyen Thi Kim Hiep et al, 2019; Martin N.K, 2015).

Hypothesis H1: Service quality has a positive impact on satisfaction.

According to legal regulations, the quality of goods refers to the extent to which the characteristics of the products meet the requirements stated in applicable disclosure standards and corresponding technical specifications. Furthermore, the study conducted by Le Tan Truong (2013) suggests that the quality of goods is the perception of customers regarding all attributes of the goods, including their nature, characteristics, and individual value, while considering whether these attributes align with their needs. The research conducted by Nguyen Thi Kim Hiep et al (2019) has demonstrated that «the quality of goods has a positive impact on customer satisfaction in supermarket shopping.» Based on these findings, it is evident that the quality of products or goods is a crucial factor contributing to satisfaction.

Hypothesis H1.a: Product quality has a positive impact on satisfaction.

Parasuraman et al (1985) argue that physical facilities are among the factors that influence service quality. This factor group includes elements related to equipment, the appearance of employees, and the external environment where procedures are conducted. Nguyen Thi Kim Hiep et al (2019) also pointed out that the physical facilities of a supermarket encompass not only the interior space, cashiers' counters, or shelves for storing products. Customers also pay attention to other factors such as restrooms, parking lots, and signage, especially the parking area, which should

be spacious enough to provide a comfortable space during busy shopping days and ensure sufficient parking spaces for customers. The research concludes that «physical facilities have a positive impact on satisfaction in supermarket shopping» (Nguyen Thi Kim Hiep et al, 2019).

Hypothesis H1.b: Physical facilities have a positive impact on satisfaction.

Promotion is defined as «stimulating the purchase of goods and services.» Therefore, the primary purpose of promotion is to stimulate consumer demand and encourage consumers to purchase more of the goods and services provided or distributed by the business. Promotion is a tool that helps companies achieve their marketing objectives (Martin N.K, 2015). Authors Nguyen Thi Kim Hiep et al (2019) have pointed out that promotional programs increase consumers' purchasing ability, which can lead to customer satisfaction. Therefore, a well-built promotion program that meets customers' needs also significantly affects their purchasing behavior, bringing excitement and satisfaction when shopping at the supermarket.

Hypothesis H1.c: Promotional programs have a positive impact on satisfaction.

The service capability of employees includes knowledge to answer questions, feeling safe during transactions at the store, inspiring service, accurate communication of provided services, attentiveness to each customer, and politeness in transactions (Dabholkar et al, 1996). Employees are the face of the supermarket, which is why providing additional training in both knowledge and soft skills for employees is crucial and has a positive impact on customers' shopping experience. Furthermore, creating a conducive work environment for employees to develop their potential is also important (Nguyen Thi Kim Hiep et al, 2019). The research by Tran Minh Tanh (2018) also concludes that employees are valuable assets of a business, especially in the retail sector, as they represent the brand's image at the point of sale. The professionalism of the staff is directly proportional to customer satisfaction.

Hypothesis H1.d: Staff service has a positive impact on satisfaction.

Product display can be understood as the arrangement and presentation of products in a specific area using the most effective methods to persuade customers to purchase those products. Displaying products helps customers easily and conveniently find the items they need, and it also aids employees in effectively managing inventory (Tran Minh Tanh, 2018). Additionally, the research by Ho Thi Huong Lan & Hoang Dang Hoa (2016) concludes that the factor of product display has a strong impact on customer satisfaction.

Hypothesis H1.e: Display of goods has a positive impact on satisfaction.

According to Bui Van Quang & Duong Thanh Hien (2019), supermarkets are crowded places with a high risk of fire, and to limit fire hazards, supermarkets must adhere to fire safety regulations. In another aspect, the authors argue that in a crowded and complex environment like a supermarket, it is susceptible to sabotage, theft and robbery. «To enhance the quality of supermarket services, attention must be paid to safety factors, especially the safety of customers' assets and money» Bui Thanh Dat (2016). In reality, the methods of theft by perpetrators are becoming increasingly sophisticated and dangerous, causing customers to be concerned and unable to shop with peace of mind in a supermarket where theft occurs frequently.

Hypothesis H1.f: Supermarket safety has a positive impact on satisfaction.

A brand can be understood as the term, design, name, symbol, or any other feature that helps differentiate a company's products from those of other companies, the brand image is also the image that customers acquire when engaging in the service, representing a distinct system through the services provided, encompassing tangible elements (physical facilities and personnel) and intangible aspects, as well as indirect experiences through communication and word-of-mouth (Vo Thi Ngoc Thuy, 2016). According to the research conducted by Martin N.K (2015), brand image is an important antecedent of customer satisfaction. Therefore, a supermarket brand with a positive image is likely to generate higher customer satisfaction within the store.

Repeat purchasing behavior is when customers, upon being satisfied with their shopping experience, exhibit a propensity to repeatedly purchase a particular brand or product that meets their satisfaction. Repeat purchasing behavior is often understood as brand loyalty. In a study conducted by Chi H.K et al (2008) on the influence of brand image on consumer purchase intention, the authors determined that brand image is significantly and positively related to purchase intention. The success of brand image enables consumers to ascertain the satisfaction derived from the brand and facilitates brand differentiation from competing counterparts, thereby enhancing the likelihood of consumer brand adoption. Thus, a higher brand image engenders an increased purchase intention.

Hypothesis H2: Brand image has a positive impact on satisfaction.

Hypothesis H3: Brand image has a positive impact on consumers' continuous purchase intention.

Customer satisfaction or dissatisfaction is understood as the customer's response to the evaluation based on the perception of the difference between pre-consumption expectations and post-consumption perceptions. Consumers revisit a company multiple times to purchase its products or services, signifying the attainment of customer loyalty. They are satisfied with the current service quality provided by the supermarket, having found a shopping destination that effectively meets their requirements, thus ensuring their continued patronage. Customers tend to make purchases if they are satisfied with the quality of the brand, and satisfaction directly influences purchase intentions (Waqas Mehmood & Owais Shafiq, 2015). Satisfaction is an integral component of customer loyalty, as customer loyalty entails the continued patronage and purchase behavior of customers towards products and services (Hatane Semuel et al, 2019).

Hypothesis H4: Satisfaction has a positive impact on consumers' continuous purchase intention.

4. Building the scales

Based on related studies, inheriting from already built scales, combining research objectives and interpretation of concepts, the author proceeds to build a draft scale and discuss it in groups with experts, to build and complete the scale of the factors in the research model. The results of the construction of the scale are shown in Table 1.

5. Methodology

The survey in this study utilized a convenience sampling method to collect data from consumers who have utilized retail services at supermarkets within the territory of Tra Vinh City, Tra Vinh province. Hair et al. (2006) suggest that for linear structural regression analysis (SEM), a sample size ranging from 200-400, corresponding to 10-15 factors, is appropriate. Different survey sampling methods can be used depending on the number of observed variables and the reliability of each study (Comrey & Lee, 2013). In this study, a sample size of 258 was deemed suitable for testing the reliability of the scale (Cronbach's Alpha) and conducting exploratory factor analysis (EFA), as well as for performing linear SEM (Comrey & Lee, 2013).

The reliability of the scale was tested using Cronbach's Alpha, which requires two conditions to be met: The Alpha coefficient of the population must be greater than 0.6, and the correlation coefficient of the total variable must be greater than 0.3 (Nunnally and Burnstein, 1994; Nguyen Dinh Tho and Nguyen Thi Mai Trang, 2009). Exploratory factor analysis (EFA) was used to identify related concepts, with Principal Axis Factoring (PAF) extraction and Promax rotation utilized to increase the accuracy of the structure. The parameters used to evaluate the EFA analysis included the KMO coefficient (Kaiser-Mayer-Olkin) ≥ 0.5 with a significance level of the Bartlett test ≤ 0.05, factor loading ≥ 0.5, total variance extracted $\geq 50\%$, eigenvalue coefficient > 1 (Gerbing and Anderson, 1998), and factor load difference of an observed variable between factors ≥ 0.3 to create discriminant value between factors.

Confirmatory factor analysis (CFA) was conducted to test the suitability of the scale and the model with the data from the study population. If the model is consistent with the actual data

Table 1. Summary of the scale

The Scale		Cronbach's Alpha	Corrected Item - Total Correlation
I. Product Quality			
CL1	The goods are always well-stocked and not in shortage.		0.606
CL2	The goods have clear brand labels and origins.		0.696
CL3	The goods are diverse, offering customers a wide range of new choices.	0.835	0.620
CL4	The goods ensure hygiene and food safety standards.		0.671
CL5	The goods guarantee a permissible remaining shelf life.		0.591
II. Physical facilities			
CS1	The parking area is spacious and convenient.		0.652
CS2	The area for picking up and returning shopping carts is convenient.		0.635
CS3	There are clear signage, product displays, and comprehensive and transparent pricing boards.	0.861	0.674
CS4	The space is well-ventilated and clean, with good sound and lighting systems in the supermarket.		0.759
CS5	The shelves, cabinets, and checkout counters are designed for convenience.		0.518
CS6	The restroom area is well-indicated, spacious, and clean.		0.679
III. Promotional programs			
KM1	The supermarket's discounted product promotion programs are attractive.		0.694
KM2	There is an adequate supply of promotional items during the promotion period.		0.691
KM3	The accompanying product giveaway programs of the supermarket are appealing and align with consumer preferences.	0.855	0.689
KM4	The supermarket provides good customer service (membership cards, home delivery, etc.).		0.628
KM5	The supermarket has efficient delivery services.		0.644
IV. Staff service			
PV1	The employees are cheerful, friendly, and polite.		0.685
PV2	The staff is knowledgeable about product information and attributes, and ready to address any inquiries.		0.666
PV3	The supermarket staff is quick and responsive, always ready to assist customers when needed.	0.835	0.646
PV4	The supermarket employees are well-groomed, physically fit, and attractive.		0.557
PV5	The cashiers process transactions quickly and accurately.		0.633
V. Product display			
TB1	The goods are displayed in a logical and organized manner, making them easy to find.		0.673
TB2	The information boards about the products are clear and informative.		0.625
TB3	The goods are neatly arranged by category and type.	0.812	0.682
TB4	Banners and posters are promoting various discounts and promotional programs.		0.544
VI. Store security			
AT1	The emergency exits are signposted.		0.636
AT2	There is a low risk of theft or loss of personal belongings while shopping.		0.646
AT3	The security staff are friendly, enthusiastic, and cheerful.	0.814	0.684
AT4	The luggage storage service for customers is excellent.		0.571
VII. Brand image			
TH1	This supermarket has a well-established, reputable, and reliable brand.		0.682
TH2	The brand of this supermarket reflects the social status that I desire.		0.666
TH3	I believe that this supermarket has a better brand compared to its competitors.	0.844	0.652
TH4	The brand of this supermarket is associated with reasonable pricing.		0.641
TH5	The brand of this supermarket serves my needs better than other brands.		0.611
VIII. Satisfaction			
SHL1	I find everything I need at this supermarket.		0.748
SHL2	I am willing to recommend this supermarket to my neighbors, friends, and relatives.		0.606
SHL3	I am satisfied with each shopping experience at this supermarket.	0.893	0.600
SHL4	I feel content when shopping at this supermarket with its brand.		0.608
SHL5	The brand of this supermarket helps me reduce the likelihood of making wrong purchasing decisions		0.655
IX. Consumers' continuous purchase intention			
TTM1	I immediately think of this supermarket whenever I have a shopping need.		0.597
TTM2	In the future, I will continue to make purchases at this supermarket.		0.639
TTM3	I am willing to buy from this supermarket even if the prices are higher than other supermarkets.	0.810	0.632
TTM4	Although other supermarkets may have similar products, I still prefer to buy from this supermarket.		0.641

Source: Compiled by the author, 2023

Table 2. Descriptive statistics

Characteristics		Freq.	ratio (%)	Characteristics		Freq.	ratio (%)
Gender	Male	98	38	Work	Student	66	25.6
	Female	160	62		Employee	85	32.9
Marriage	Single	136	52.7		Civil servants	50	19.4
	Married	122	47.3		Freelancers	57	22.1
Shopping Frequency /month	1	9	3.5	Age	18- 25	156	60,5
	2	51	19.8		26- 35	92	35,7
	3	77	30.2		36- 45	10	3,9
	4	62	24	Income	<5 mil. VND/month	65	25.2
	5	38	14.7		5 – 10 mil. VND/month	138	53.5
	6	20	7.8		10 - 15 mil. VND/month	55	21.3

Source: Survey data, 2023

without any adjustment solution, the scale was concluded to be unidirectional (Steenkamp and Van Trijp, 1991). According to Crowley & Fan (1997), Kline (1998), and McDonald & Ho (2002), the measurement model that is consistent with the actual data must be consistent with four measures: (i) the test (χ^2 or CMIN) has p-value > 0.05 or ($\chi^2/$) df or CMIN/df) not more than 2; (ii) CFI comparative index; (iii) TLI not less than 0.9 (Bentler and Bonett, 1980); (iv) the RMSEA index is not greater than 0.08.

To evaluate the reliability of the scale, three criteria were used: (i) the composite reliability CR (Composite Reliability, ρc) is not less than 0.5 (Joreskog, 1971); (ii) the total variance extracted AVE (Average Variance Extracted, ρvc) is not less than 0.6 (Nunnally and Bernstein, 1994); (iii) the convergent validity of the scale is confirmed when the normalized weights (λ) of the scale are greater than 0.5 with statistical significance $p < 0.05$ (Gerbing and Anderson, 1988).

Structural equation modeling (SEM) is a statistical technique used to test the causal relationships between the concepts in a research model and to evaluate the weights of the observed variables when measuring the concepts. The research process was conducted in two phases.

6. Results and discussion

6.1. Description of research sample information

The study dispatched a total of 258 survey questionnaires and received 258 responses that were deemed valid, yielding a sample adequacy rate of 100%.

The study obtained 258 valid survey responses, which revealed important information about the respondents' demographic characteristics. The majority of the respondents were female, representing 62% of the sample, while males accounted for 38%. In terms of marital status, more than half of the respondents were single, comprising 52.7% of the sample. Concerning age, the majority of respondents were between 18 and 25 years old, accounting for 60.5% of the sample. In terms of occupational position, employees accounted for 32.9% of the respondents. In terms of shopping frequency per month, the majority of respondents indicated that they usually visit supermarkets for shopping purposes three to four times per month. Finally, regarding income, the most common income range among respondents was 5 to 10 million VND per month, which comprised 53.5% of the sample.

6.2. Check the reliability of the scale

The reliability of the 43 observed variables was assessed using Cronbach's Alpha coefficient. The results indicate that all measured variables met the criterion of ≥ 0.6 as suggested by Nunnally and Burnstein (1978) and Peterson (1994). Therefore, all 43 observed variables were retained for the subsequent exploratory factor analysis (EFA) step. The results are illustrated in Table 1.

6.3. Exploratory factor analysis

The present study conducted a factor analysis using 43 observed variables, and the Kaiser-Meyer-Olkin (KMO) index was found to be 0.878, indicating the appropriateness of the data

Table 3. Results of confirmatory factor analysis

Factors	CFA					
	C.R	AVE	χ²/df	TLI	CFI	RMSEA
CL	0.837	0.508				
CS	0.863	0.515				
KM	0.854	0.540				
PV	0.837	0.509				
TB	0.811	0.523	1.378	0.929	0.935	0.038
AT	0.816	0.528				
TH	0.845	0.521				
SHL	0.843	0.520				
TTM	0.811	0.517				

Source: Survey data, 2023

for factor analysis. Additionally, the significance level of the Bartlett test was 0.000, which is satisfactory as it is less than or equal to 0.05, thereby rejecting the null hypothesis (H0) that the variables are not correlated with each other and do not satisfy the conditions for factor analysis. The results revealed that the 43 observed variables could be grouped into 9 factors. The total variance extracted was found to be 63.768%, which is greater than the satisfactory threshold of 50%, indicating that these 9 factors could explain 63.768% of the variation in the data.

Moreover, the Eigenvalues of the factors were high, with the lowest value being 1.123, which is greater than 1. The factor loading coefficients were all greater than 0.5, and there was no case where a variable loaded onto more than one factor simultaneously. This ensures the convergence and discriminant validity of the factors in the EFA analysis.

6.4. Confirmatory factor analysis

The results are indicated in Table 3.

The critical model was subjected to confirmatory factor analysis (CFA) and the resulting statistics indicate a satisfactory fit. Specifically, the p-value of the model was 0.000, which is less than the acceptable threshold of 0.05. The Chi-square ($\chi2$) value was 1135,497, with 824 degrees of freedom (df), resulting in a CMIN/df index of 1.378 which is less than 5, as recommended by Bentler and Bonett (1980). Additionally, the comparative fit index (CFI) and

Tucker-Lewis index (TLI) were 0.935 and 0.929, respectively, both greater than the recommended threshold of 0.9. The root mean square error of approximation (RMSEA) was 0.038, less than the acceptable threshold of 0.08 as recommended by Hu & Bentler (1995) and Garver & Mentzer (1999). These indicators support the conclusion that the model is consistent with the official data.

Further, the composite reliability coefficient (CR) was computed for the four factors and ranged from 0.811 to 0.863, which satisfies the recommended threshold of 0.60 for reliability. The total variance extracted ranged from 0.509 to 0.540, also satisfying the recommended threshold of 0.50. These results suggest that the scale of factors is reliable.

The normalized load factors for all observed variables ranged from 0.569 to 0.835, which is greater than the recommended threshold of 0.5. Therefore, the observed variables used to measure the factors and components in the research model have convergent values.

To assess discriminant validity, estimated correlation coefficients between pairs of scales were tested against their standard errors (S.E). The results showed p-values less than 0.05, indicating that the correlation coefficient r of each pair of scales was different from 1 ($\neq 1$) and statistically significant ($p < 0.05$). Thus, the scale has discriminant validity.

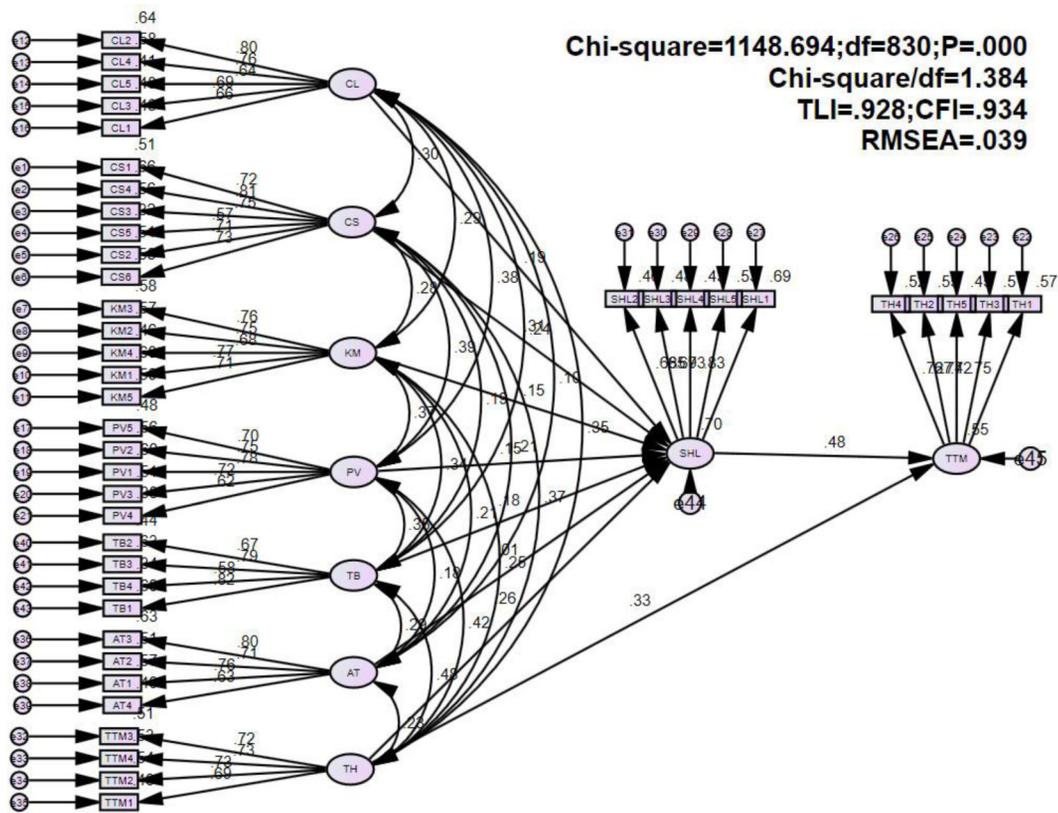### 6.5. SEM - Structural Equation Model testing

Figure 4. SEM model test results

Table 4. Results of testing the research hypothesis

Hypotheses	Observed variables			Estimate	S.E	C.R	P -value	Conclusion
H1.a	Satisfaction	←	Product Quality	0.196	0.056	3.226	0.001	Accepted
H1.b	Satisfaction	←	Physical facilities	0.314	0.062	5.057	***	Accepted
H1.c	Satisfaction	←	Promotional programs	0.123	0.047	2.598	0.009	Accepted
H1.d	Satisfaction	←	Staff service	0.157	0.067	2.339	0.019	Accepted
H1.e	Satisfaction	←	Display of goods	0.227	0.080	2.830	0.005	Accepted
H1.f	Satisfaction	←	Supermarket safety	0.006	0.061	0.100	0.921	Rejected
H2	Satisfaction	←	Brand image	0.343	0.093	3.685	***	Accepted
H3	Continuous Purchase Intention	←	Brand image	0.403	0.104	3.866	***	Accepted
H4	Continuous Purchase Intention	←	Satisfaction	0.437	0.077	5.656	***	Accepted

Source: Survey data, 2023

The evaluation of the structural equation model indicates that the indices satisfy the following criteria: CMIN/df = 1.384 ≤ 5 (Bentler & Bonett, 1980), CFI = 0.934 > 0.9, TLI = 0.928 > 0.9, and RMSEA = 0.039 (Hu & Bentler, 1995; Garver & Mentzer, 1999). Furthermore, the estimated coefficients for all the parameters in the model are statistically significant at the 5% level, indicating that the measurement model is consistent with the observed data.

The results of the hypothesized model are illustrated in Figure 4.

To test the research hypothesis, we have computed the required statistical information from the Estimate spreadsheet, which is presented in Table 4.

Hypotheses H1(a,b,c,d,e) are accepted as the regression coefficients (β1a = 0.196, p = 0.001;

β1b = 0.314, p = 0; β1c = 0.123, p = 0.009; β1d = 0.157, p = 0.019 and β1e = 0.227, p = 0.005, respectively) However, hypothesis H1.f has been rejected (p= 0.921 > 0.05, There is no statistical significance). Demonstrate that service quality has a positive effect on satisfaction. These findings are consistent with prior research by Nguyen Thi Kim Hiep et al (2019); Martin N.K., 2015; Mehmood & Owais Shafiq, 2015; Dam Sao Mai et al, 2021. The authors have also found a significant positive relationship between service quality and satisfaction. Thus, it can be concluded that service quality is a crucial factor in satisfaction.

The present study supports the acceptance of hypotheses H2 and H3. The results demonstrate that brand image has a positive effect on satisfaction (β2 = 0.343, p = 0) and continuous purchase intention (β3 = 0.403, p = 0). These findings are consistent with previous research that has established a positive correlation between brand image satisfaction and intention continued purchasing (Vo Thi Ngoc Thuy, 2016; Martin N.K, 2015; Hatane Semuel et al, 2019; Waqas Mehmood & Owais Shafiq, 2015). Moreover, the study confirms the influence of brand image on consumer purchase intention, the authors determined that brand image is significantly and positively related to purchase intention. This finding is consistent with previous research hypotheses (Chi H.K et al, 2008; Hsieh et al, 2006; Koo D.M, 2003).

Additionally, the study supports the acceptance of hypothesis H4, which posits that satisfaction affects continuous purchase intention (β4 = 0.437, p = 0). The positive impact of satisfaction on the intention of continued purchasing has been found in previous research (Hatane Semuel et al, 2019; Waqas Mehmood & Owais Shafiq, 2015). Additionally, the study also found a positive impact of service quality on continuous purchase intention through the mediating variable of satisfaction. The results imply that businesses should focus on service quality and brand image to enhance satisfaction and continuous purchase intention. By doing so, businesses can enhance customer loyalty and engagement, which contribute to the overall success of the enterprise.

6.6. Test the theoretical model estimation by Bootstrap

A bootstrap method test was conducted with 500 replicate samples to determine the difference (bias) and standard error of difference (SE-bias) between the bootstrap estimate and the maximum likelihood (ML) estimate. The results did not show any statistically significant differences at a significance level of less than 0.05.

The Bootstrap estimation test results indicated that the CR index was satisfactory, with most of the absolute values of CR being less than 2.0. This finding implies that the estimates in the research model are reliable.

7. Conclusion

This study investigated the relationship between service quality, brand image,

Table 5. Bootstrap estimation results compared with ML estimation

Parameter			Bootstrap estimation			Disparity		
			SE	SE-SE	Mean	Bias	SE-Bias	CR
Satisfaction	←	Product Quality	0.060	0.002	0.191	0.004	0.003	1.333
Satisfaction	←	Physical facilities	0.089	0.003	0.305	-0.007	0.004	1.750
Satisfaction	←	Promotional	0.064	0.002	0.152	0.002	0.003	0.667
Satisfaction	←	Staff service	0.084	0.003	0.150	0.001	0.004	0.250
Satisfaction	←	Display of goods	0.073	0.002	0.185	0.001	0.003	0.333
Satisfaction	←	Brand image	0.081	0.003	0.255	-0.002	0.004	0.5
Continuous Purchase Intention	←	Brand image	0.101	0.003	0.332	-0.002	0.005	0.4
Continuous Purchase Intention	←	Satisfaction	0.087	0.003	0.480	-0.004	0.004	1

Source: Survey data, 2023

satisfaction, and continuous purchase intention. The results showed that both service quality and brand image have a positive effect on satisfaction and customers' continuous purchase intention. Furthermore, satisfaction was found to mediate the relationship between service quality, brand image, and continuous purchase intention.

These findings contribute to the existing literature that emphasizes the importance of service quality, and brand image in promoting satisfaction, and customer's continuous purchase intention. Moreover, the results of the research can have practical significance for managers, helping supermarket managers formulate appropriate business strategies to enhance service quality, brand image, satisfaction, and intent to repurchase among consumers in the city of Tra Vinh. However, the generalizability of the research findings may be limited to a specific geographical area and the chosen sample size for the study is relatively small compared to the overall population. Nonetheless, the study's findings underscore the critical role of service quality, brand image, and satisfaction, in customer's continuous purchase intention and provide a basis for further research in this area.

REFERENCES

Bui Thanh Dat. (2016). *Evaluation of the service quality of supermarkets in Kon Tum City.* Master's thesis at Da Nang University.

Bui Van Quang & Duong Thanh Hien. (2019). Factors influencing customer satisfaction with the service quality of Co.opmart system in the Mekong Delta region. *Vietnam Trade And Industry Review,* Vol 3.

Chi H.K, Yeh H.R, Huang MW. (2008). The Influences of advertising endorser, brand image, brand equity, price promotion on purchase intention: The mediating effect of advertising endorser. *The Journal of Global Business.*

Dam Sao Mai et al. (2021). The relationship between service quality, brand image, customer satisfaction, and customer loyalty. *Journal of Finance, Economics, and Business in Asia,* Volume 8, Issue 3.

Dewey, John. (2007). *How we think, New York: Cosimo*, ISBN 9781605200996.

Engel, J. Blackwell, R. D. & Kollat, D. (1968). *Consumer behavior.* New York, Holt, Rinehart and Winston.

Hatane Semuel et al. (2019). Brand image, customer satisfaction supermarket customer loyalty jaringan superindo di surabaya, *Jurnal Manajemen Pemasaran,* Vol. 13, No. 1, April 2019, 27-34

Ho Thi Huong Lan & Hoang Dang Hoa. (2016). The Relationship between Service Quality, Customer Satisfaction, and Loyalty: An Empirical Study at Big C Supermarket in Hue City. *Journal of Economics,* Issue 4, 67-79.

Hsieh M. H., Pan, S. L., & Setiono, R. (2006). Product-, Corporate-, and Country-Image Dimensions and Purchase Behavior: A Multicountry Analysis. *Journal of the Academy of Marketing Science,* 32(3), 251-270.

Koo D. M. (2003). Inter-relationships among store images, store satisfaction, and store loyalty among Korea discount retail patrons. *Asia Pacific Journal of Marketing and Logistics,* 15(4), 42-71.

Le Tan Truong. (2013). *Research on customer satisfaction with bottled drinking water products at Hai Duong Water Supply Joint Stock Company.* Master's thesis at Shu-Te University.

Martin N.K. (2015). *The impact of brand image on customer satisfaction in major supermarkets in Nairobi county.* A research project presented in partial fulfillment of the requirements for the award of the degree of Master of Business Administration (MBA), School of Business, University of Nairobi.

Nguyen Thi Kim Hiep, Nguyen Thi Kim Chung, Nguyen Thi Hong Ha. (2019). Quantitative model of factors influencing customer satisfaction with the service quality of MM MEGA MARKET supermarket A case study in Bien Hoa. *Journal Of Science Of Lac Hong University*, issue 6.

Nunnally, J. C. and Burnstein, I. H. (1994). *Psychometric Theory.* New York: McGraw – Hill.

Parasuraman A. V. A. Zeithamil, L.L. Berry. (1988). SERQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*, 64(1), 12-40.

Philip Kotler. (2007). Kotler temp scale for measuring consumer perceptions of service quality. *Journal of Retailing.*

Philip Kotler. (2011). *Marketing Management.* Labor - Social Publisher.

Tran Minh Tanh. (2018). *Researching customer satisfaction with the service quality at Co.op Smile grocery store*. Master's thesis Open University Ho Chi Minh City.

Vo Thi Ngoc Thuy. (2016). *The brand image of universities in the minds of learners.* Journal of Open University of Ho Chi Minh City, Issue 11.

Waqas Mehmood & Owais Shafiq. (2015). Impact of Customer Satisfaction, Service Quality, Brand Image on Purchase Intention. *Journal of Marketing and Consumer Research,* Vol.15, 2015.