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A STUDY ON FACTORS AFFECTING PERCEIVED CUSTOMER VALUE OF SEVERAL CONVENIENCE STORE CHAINS IN HANOI CITY

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The study uses the results of in-depth interviews with 18 customers and questionnaires with 386 ones who have been shopping in convenience stores in Hà Nội City. A quantitative analysis of the data sets the research model including 31 observation variables of 6 independent variables and 7 observation variables of dependent variables - perceived customer value and assesses the influences of the observation variables on perceived customer value in several convenience store chains in Hanoi.

Keywords: Customer value, perceived customer value, affecting factors, convenience store chains

According to P.Douyle (1998) and M.Porter (2008), the success and failure in competition of enterprises in the market depend on their "capabilities to create and supply values to target customers, compared with rivals in the same market". In the new-generation textbook of Marketing Management, P.Kotler (2008) stated that the customer supply value is "the difference and/or ratio between the total benefits that customers receive and the total costs they pay to search, buy and consume products from one or some suppliers". In the research of business and marketing in general, in retail market in particular, it is usually very difficult to determine the elements of customer benefits/costs, so researchers often use the concept of perceived customer value (PCV). Perceived customer value, introduced by Zeithaml in 1998, is defined as "the overall assessment of customers about the benefits of buying a product where customers perceive what they receive and what they have to pay to obtain that product".

Although the concept of perceived customer value in retail market has gained attention from many Vietnamese scholars in recent years, most of them just focus their research on retail supermarkets. This study identifies and clarifies the relations and impacts of factors contributing to perceived customer value in convenience store chains (CSCs) in general and in some particular CSCs in Hanoi.

1. Theoretical grounds and research hypotheses of factors affecting perceived customer value of convenience store chains

A reference of the studies on factors affecting supermarket service quality by N.Đ.Thọ and N.T.M.Trang (2008), the studies on product quality by Bruner (2001) and by Agarwal and Teas (2002), the study on perceived prices by Dodds and Zinlchan (1991), the study on perceived customer value by Naumann and Earl (2011) reveals that Naumann and Earl present 4 constituent elements affecting perceived customer value, including: product quality, service quality, brand image and per-

ceived prices. In a study on perceived customer value in Coopmark retail supermarket, P.X.Lan and H.M.Tam (2012) set up a theoretical model on perceived customer value with 8 factors: product ranges, service capacity, product display, store plans, safety, brand image, product quality and perceived prices. After multiple regression analysis, there remain 5 components: perceived prices, service capacity, product display, safety, product ranges. Researchers believe that there are the 5 important elements that retail supermarkets need to provide superior values to competitors while the 3 factors of product quality, brand and store plan are 'standard features' which are taken for granted but do not require considerable investments.

Marketing Management coursebooks by P.Kotler (2000) and later by P.Kotler & K.Keller (2008), identify 8 tactical marketing decisions of retail enterprises with considerable impacts on perceived customer value, including: Product lines, Purchasing, Store Atmosphere, Retail Promotion; Store Experience and Action, Store location and Prices.

Drawing from these theoretical grounds, based on the distinctive features and positions of CSCs in distribution channels, it can be seen that CSCs can be a retail enterprise or a SBU according to store types or strategic market so they have the tactic marketing management function; (2) CSCs include at least 2 member stores with mixture or combination of necessities, basic and daily products including fresh foods, semi-processed foods or packaged technological products, customized daily consumption goods; (3) CSCs are not bigger than retail supermarkets in terms of trading areas, located near residential areas, convenient for fast, repeated shopping with added

values. On these bases, it is possible to draw 6 elements affecting perceived customer value and set up 6 research hypotheses as follows: Retail product arrangements have direct impacts on PCV (H1); Retail price setting and practicing have direct impacts on PCV (H2); Customer service quality has direct impacts on PCV (H3); Store locations have direct impacts on PCV (H4); Product communication and displays have direct impacts on PCV (H5); Store atmosphere has direct impacts on PCV (H6).

2. Research measurement scales and model

Qualitative research was conducted with 18 customers shopping in member stores of some CSCs in Hanoi to identify variables in the model and measurement scales. The official research model was set up as presented in Figure 1:
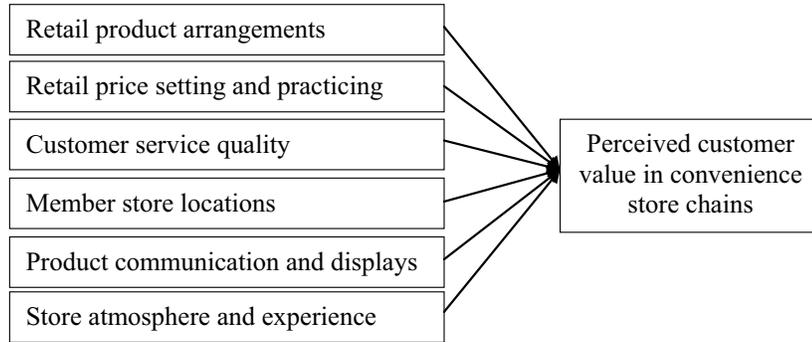
Source: *collected by authors from qualitative research*

Figure 1: *Research model for perceived customer values in CSC in Hanoi*

A set of measurements with 6 constituent components of value supply was set up with 41 observation variables (items) and perceived customer value is measured by 7 observation variables as follows:

- Retail product arrangements (RA) has 8 observation variables: product ranges are sufficient, update, appropriate brands, quality/price ranges; products are diverse to satisfy customer choices; product combining structures are flexible, balanced, stable, developed and diversified; new products are frequently introduced; products have internationally-regulated labeling, easy to track; products meet quality standard and food safety and hygiene regu-

lations; there are no fake and over-expiry products; priorities are given to made-in-Vietnam products with reasonable prices.

- Retail price setting and practicing (RP) has 6 observation variables: prices are reasonable, quality/prices are accepted by customers; prices at convenience stores are lower than average prices of the same products in the market; compared with prices at retail supermarkets, prices in convenience stores are more competitive; compared with prices in street markets and grocery stores; prices in convenience stores are better; price practicing in convenience stores is diverse, reliable and attractive; customer satisfaction is proportionate to price/quality correlation.

- Customer service quality (CS) has 7 observation variables: staff at convenience stores are willing to serve customers; staff are readily available when customers need; staff answer all customers' queries cautiously; staff have friendly and polite manners; staff provide rapid and professional services to customers; cashiers arrange payments quickly and accurately; stores listen to and deal with all customers' complaints effectively.

- Store locations (SL) has 6 observation variables: locations are recognizable and attractive to customers; locations are convenient for customers to access; locations help to save customers' time for travel and shopping; locations are convenient for walk as convenience stores are close to customers' living/working areas; locations are convenient and can save costs of importing products to stores; locations are convenient to extend working hours of stores.

- Product communication and display (CD) has 7 observation variables: products are displayed in a way that they are easy to find, to see and access; store signals are clear and informative; prices are clearly and suitably quoted; ways along aisles are arranged properly; display facilities (shelves, counters, blocks) are modern, aesthetic and appropriate with product types; cashier counters are arranged suitably and conveniently; there are good combina-

tions with customers contact organization and new product introduction.

- Store atmosphere (SA) has 7 observation variables: store space is airy, suitable with customer scale; stores are clean and hygienic; there is enough light with pleasant colors and fragrance; business communication system combined with music is set at appropriate volume; control and supervision systems are sufficient, modern and proper; fire prevention system is ready and well-operated; promotions, events and direct marketing activities at stores are diverse and attractive.

- Perceived customer value (PCV) has 7 observation variables: convenience stores are reliable places for shopping; customers perceive the cares, understanding and sharing of stores; customers perceive more benefits than costs; customers perceive the convenience and quickness in shopping at stores; customers perceive the delight, comfort and security when shopping at stores; customers perceive the modern styles of shopping at stores; customers perceive the satisfaction to their demand at stores.

3. Research findings

3.1. Sample descriptions

This research employed on-site questionnaires with participants being customers of convenience stores. Questionnaires were formulated with 7 components including 6 independent variables with 41 items and one dependent variable of PCV with 7 observation variables. The minimum sample size required for this method (Hair et al, 2006) was 48x5=240 participants. The research used convenient sampling methods. Taking into account the risks of low collection rates, the researchers delivered 500 questionnaires, among which they set to deliver 400 questionnaires to customers in member stores of 6 CSCs including Vinmart+, Circle K, Guardian, Haprofood, Shop&Go, Co.opFood, making sure that each chain had 50-70 questionnaires (depending on the number of the stores in the chains in inner districts), the remaining 100 questionnaires were delivered to customers of other CSCs. The total

number of collected questionnaires was 398, among which 12 were rejected for not meeting the requirements. As such, the number of questionnaires eligible for analysis was 386 (Table 1):

3.2. Quantitative research analysis

* Testing measurement scales by Cronbach's Alpha

The Cronbach's Alpha results of measurement scales of 6 components in perceived customer value and the perceived customer value are presented in Table 2. The table shows that all measurements represented by observation variables have Cronbach alpha coefficients of 0.7463 to 0.8018, meeting the requirements (> 0.6), item-total correlation > 0.3, satisfying the testing requirements. However, 5 observation variables: RA6 "products meet quality standard and food safety and hygiene regulations" of component "Retail product arrangements"; RP2 "prices at convenience stores are lower than average prices of the same products in the market" of the component "Retail price setting and practicing"; SL6 "locations are convenient to

Table 1: *Sample structures*

No.	Sample features	Sample size = 386	
		Frequency	**%**
1	**Gender**		
	Male	144	37.31
	Female	242	62.69
2	**Age**		
	≤ 30	80	20.72
	31-40	141	36.53
	41-50	93	24.09
	≥ 50	72	18.66
3	**Average income (million VND/month)**		
	< 2	58	15.02
	2-5	98	25.38
	5-8	161	41.71
	> 8	69	17.89
4	**Academic qualification**		
	High school	72	18.65
	Vocational training school	84	21.76
	College – University	166	43.01
	Post graduates	64	16.58
5	**Occupation**		
	Civil servants	68	17.61
	Workers at non-state enterprises	99	25.65
	Housewives	72	18.66
	Others (in health care, education, service, trading, small business owners, etc.)	147	38.08
6	**Number of shop visits to CSCs (times/month)**		
	1-2	105	27.20
	3-4	153	39.64
	5-6	91	23.57
	> 7 times	37	9.59
7	**Number of years shopping at CSCs**		
	- Mean	2.2 years	
	- Mode	1.4 years	
	- Min	6 months	
	- Max	9 years	

(Source: data processed by SPSS 20.0)

extend working hours of stores" of the component "Store locations"; SA1 "store space is airy, suitable with customer scale" of the component "Store atmosphere"; PCV7 "customers perceive the satisfaction to their demand at stores"of the component "Perceived customer value" all have Cronbach alpha < 0.6 (0.5971; 0.5896; 0.5763; 0.5901; 0.5784

respectively) and item-total correlation <0.3 (0.2883; 0.2917; 0.2906; 0.2697; 0.2478 respectively), not meeting the testing requirements, therefore rejected from the following analysis. Components RA, RP, SL, SA and PCV with rejected observation variables have their alpha coefficient recalculated as 0.7864; 0.8056; 0.8113; 0.7862; 0.8328 respectively.

* EFA analysis

The results of EFA analysis via principal component analysis with factor rotation for 37 measurement scales of Perceived customer value show that 6 components extracted at Eigen value of 1.138 and extracted variance 62.163% meet the testing requirements (>0.5). However, 6 observation vari-

Table 2: *Cronbach's alpha of concepts in research model*

Observation variables	Item-total correlations	Alpha if variables rejected	Observation variables	Item-total correlations	Alpha if variables rejected
Retail product arrangements, alpha=0.7463			Product communication and display, alpha=0.7716		
RA1	0.4918	0.6673	CD1	0.5619	0.6993
RA2	0.4016	0.7192	CD2	0.4927	0.7018
RA3	0.5658	0.6853	CD3	0.5071	0.7234
RA4	0.4901	0.7186	CD4	0.5414	0.6994
RA5	0.5329	0.6877	CD5	0.3221	0.6317
RA6	0.28883	0.5971	CD6	0.3086	0.6268
RA7	0.3672	0.6218	CD7	0.5856	0.6818
RA8	0.5362	0.7288			
Retail price setting and practicing, alpha=0.7528			Store atmosphere, alpha=0.7532		
RP1	0.5366	0.6974	SA1	0.2697	0.5901
RP2	0.2917	0.5896	SA2	0.4654	0.6853
RP3	0.4853	0.7438	SA3	0.5077	0.7015
RP4	0.5067	0.7017	SA4	0.5211	0.7261
RP5	0.5219	0.6978	SA5	0.4909	0.6896
RP6	0.4973	0.6909	SA6	0.3199	0.6313
			SA7	0.5034	0.7019
Customer service quality, alpha=0.7714			**Perceived customer value, alpha=0.8018**		
CS1	0.3717	0.6088	PVC1	0.5917	0.7318
CS2	0.4929	0.7177	PVC2	0.4766	0.7039
CS3	0.5876	0.7508	PVC3	0.5473	0.7405
CS4	0.4759	0.6864	PVC4	0.5384	0.6981
CS5	0.3276	0.6154	PVC5	0.4913	0.7229
CS6	0.5182	0.7193	PVC6	0.5336	0.7446
CS7	0.5097	0.7096	PVC7	0.2478	0.8784
Store locations, alpha=0.7868					
SL1	0.4918	0.7022			
SL2	0.5024	0.6957			
SL3	0.4887	0.7186			
SL4	0.4833	0.7216			
SL5	0.5514	0.6793			
SL6	0.2906	0.5763			

Source: data processed by SPSS 20.0

ables: RA7 of "Retail product arrangements"; CS1, CS5 of "Customer service quality"; CD5, CD6 of "Product communication and display"; SA6 of "Store atmosphere" have factor loading <0.5, thereby rejected from the next analysis.

The second and third EFA analysis with 31 remaining observation variables show KMO = 0.808 (>0.5), Barlett tests have statistical significance =0.000 <0.05, ensuring the convergent validity of the data set. Table 3 shows that Eigenvalue = 1.138 with 6 variables extracted has extracted variance 71.397% (>>0.5), all components with rejected observation variables have their alpha coefficients recalculated of RA- 0.8017; CS-0.8234; SA-0.8192; CD-0.8219.

Table 3: *EFA analysis for research concepts*

No.	Concepts	Eigenvalue	Extracted variance	Cronbach's Alpha
1	RA	8.881	18.375	0.8017
2	RP	1.987	8.425	0.8056
3	CS	6.335	15.867	0.8234
4	SL	1.138	7.564	0.8113
5	CD	3.612	9.782	0.8219
6	SA	4.186	11.384	0.8192
	Total	-	71.397	-
7	PCV	1.962	79.683	0.8328

Source: data processed by SPSS 20.0

Perceived customer value is assumed to be a unidirectional concept, there are 6 observation variables used to measure perceived customer value. EFA analysis shows KMO = 0.872 (> 0.50), Barlett test has Sig. = 0.000, Eigenvalue = 1.962, Cronbach's alpha coefficient = 0.8328, extracted variance = 79.683%, all factors loading > 0.5, meeting the testing requirements, which means that this component is appropriate (see Table 3).

From these EFA analysis results, it can be concluded that 6 measurements of perceived customer value and 31 measurements of 6 components creating perceived customer value gain convergent validity, in other words, observation variables can represent research components that need measuring.

* *Correlation analysis*

Correlation analysis of independent variables and dependent variables shows that all absolute correlation coefficients between variables ranged between 0.313 and 0.596, not exceeding condition coefficient of 0.85. This enables two conclusions: (1) discriminant validity of the research was reached, showing that measurements in this research can measure the research concepts; (2) there are considerable relations among independent variables as well as between independent variables and dependent variables although at different levels, this means that to raise the coefficients of dependent variables, it is necessary not to ignore or overlook any independent variables although they have different correlations with independent variables.

* *CFA analysis*

The CFA analysis of 6 components with 31 observation variables calculated via AMOS reveals that MH2 has X2 = 1169.595 with 416 degrees of freedom, p value = 0.000; CMIN/df = 1.659 (<2.0) CFI = 0.918; TLI = 0.918 (>0.90); RMSEA = 0.063 (<0.08). This illustrates that the model is appropriate with the collected data set.

* *Multiple regression analysis*

Linear regression function in SPSS 20.0 was used to run multiple regression software. The estimate results of the multiple regression model shows $R^2 = 0.767$; Sig.(F)= 0.000, illustrating that the multiple regression model is appropriate with the research and has explanation and diagnosis capacity.

Adjusted coefficient demonstrates that the adaptability of the model is 76.7%, which means that nearly 77% of variations of independent variable PCV can be explained by 6 independent variables of RA, RP, CS, SL, SA, CD.
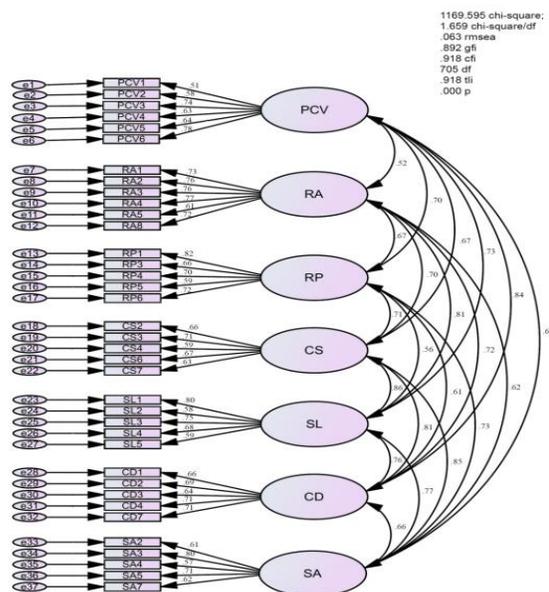
Figure 2: *CFA analysis of perceived customer value model in CSCs in Hanoi*

ß* ranges from 0.074 to 0.261 with p<0.05, which means that all 6 independent variables can be diagnosis factors to perceived customer value with validity of 95%.

Tolerance ranges from 0.175 to 0.347, so VIF has values from 1.715 to 1.927 (<<10)> This shows that the multi-linearity in the model is very low, which does not matter to variables in this model.

The multiple regression equation with standardized coefficients is as follows:

PCV = ß1*RA + ß2*RP + ß3*CS + ß4*SL + ß5*SA + ß6*CD

The multiple regression model for perceived customer value based on research findings is:

PCV= 0.261RA + 0.194RP + 0.187CS + 0.162SL + 0.098SA + 0.074CD

These findings indicate that Retail product arrangement (RA) in convenience stores is the most important factor to perceived customer value; the second most important group includes 3 components of Retail price setting and practicing, customer service quality and store locations ranking

second, third and fourth respectively; group 3 consists of store atmosphere and product communication and display ranking fifth and sixth in their order of importance.

4. Conclusions and proposals based on research findings

4.1. Some conclusions

Based on the quantitative analysis and the combined results of research components (see Table 4), the following conclusions can be made:

Firstly, CSCs in Hanoi have been aware of the importance and therefore improved the quality of 6 components creating perceived customer value. They have focused on and gained the following achievements: product lines are sufficient, product structures are stable and diverse across quality ranges; retail products have clear origins with priority given to high-quality made-in-Vietnam products; store locations, store design, store atmosphere, product communication and promotion are cared of to create a convenient shopping experience for customers in comparison with traditional retail markets of Vietnam.

Secondly, all 6 components creating perceived customer value have scores at or above average (from 3.02 to 3.24), of which the two most important components are Retail product arrangement (3.24) and Store locations (3.14) with scores higher than average; the remaining 4 components have scores at average. This illustrates that the implementation of these components are not really synchronous, inappropriate with customer demand, unable to supply high and different values to customers; not appropriate and proportionate with the positions of modern retail units and the potentials to develop the market in big cities of Vietnam.

Thirdly, CSCs have not made full use of competitive advantages to raise the quality and effectiveness of core components to create perceived customer value given the fierce competition in retail market at present: they are retail price setting and practicing; customer service quality; product communication and display at stores. The observation of

these 3 components in recent years shows weak and poor results, which means that customers do not perceive that the value/benefits that they receive are proportionate to the costs that they have to pay.

Fourthly, dependent variable of perceived customer value has score of 3.04, among which 5/6 observation variables reach nearly average to average scores in the following orders: customers perceive the delight, comfort and security when shopping at stores; customers perceive the convenience and quickness in shopping at stores; customers perceive stores as reliable places for shopping; customers perceive the modern styles of shopping at stores; customers perceive the satisfaction to their demand at stores; customers perceive more benefits than costs; the remaining observation variable of "customers perceive the cares, understanding and sharing of stores" is rated as weak. This is because CSCs have not implemented tactical marketing decisions / customers value creating components synchronously and effectively.

Table 4: *Evaluation of research components*

No.	Research components	Evaluation scores	
		Mean	Stan.deviation
1	Retail product arrangements	3.24	0.596
2	Retail price setting and practicing	3.06	0.595
3	Customer service quality	3.02	0.584
4	Member store locations	3.14	0.608
5	Product communication and displays	3.03	0.591
6	Store atmosphere and experience	3.09	0.596
7	Perceived customer value	3.04	0.597

Source: data processed by SPSS 20.0

4.2. Some proposals

Based on the research findings, the researchers propose the following solutions to CSCs in Hanoi to create good perceived customer value:

- Based on comprehensive and update research on market demand and consumer behavior, CSCs should propose big and differentiated supply values to customers and implement tactical marketing management decisions synchronously and effectively as well as implement the proposed customer supply values.

- CSCs should work out and implement decisions on product structure and develop new products to ensure that consumers can perceive the satisfaction of product selections with a wide variety of kinds, designs and brands when shopping in the chains.

- CSCs should work out and implement decisions on retail price setting and practicing to guarantee that retail prices are competitive and customers can perceive the value/benefits of the products. This requires CSCs to manage their supply systems effectively to reduce costs and raise the efficiency/costs of the purchasing process to create prerequisites for lower prices than competitors.

- CSCs should work out and implement decisions on customer services to create added values from superior customer services. This requires further training to improve the qualification and skills of marketing managers and safe forces. It is also necessary to have appropriate incentive schemes to these personnel group.

- CSCs should work out and implement decisions on product communication and displays to guarantee that products are displayed scientifically, attractively so that customers can easily recognize and access products so as to promote their buying decisions.

- CSCs should work out and implement decisions on store atmosphere so that customers can experience civilized shopping environment in the stores, thereby increasing their perceived customer value and loyalty.◆

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Summary

Nghiên cứu này sử dụng kết quả phỏng vấn sâu 18 khách hàng và điều tra qua bảng hỏi 386 khách hàng đã và đang mua hàng tại các cửa hàng tiện ích trên địa bàn Thành phố Hà Nội. Tiến hành phân tích định lượng bộ dữ liệu này đã xác định được mô hình nghiên cứu gồm 31 biến quan sát của 6 thành phần/biến độc lập và 7 quan sát của biến phụ thuộc - giá trị khách hàng cảm nhận và đánh giá sự tác động của các yếu tố/biến quan sát các thành phần đến giá trị khách hàng cảm nhận tại một số chuỗi cửa hàng tiện ích trên địa bàn Thành phố Hà Nội.

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