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THE IMPACT OF MULTICHANNEL INTEGRATION CAPABILITY ON CUSTOMER VALUE AND SATISFACTION - AN EMPIRICAL STUDY OF RETAIL ENTERPRISES IN HANOI

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This study aims to explore the impact of multichannel integration capability on customer satisfaction which is mediated by customer value of retail enterprises in Hanoi. From the literature review, this study establishes the research model of the impact of multichannel integration capability on customer value and the influence of customer value on customer satisfaction of retailers. The quantitative research method which uses PLS-SEM by Smart-PLS3 software is used to examine the research model. By a survey of 249 consumers in Hanoi, the research results have shown that multichannel integration capability has a significant and positive impact on customer value and customer value favorably influences on customer satisfaction of retailers in Hanoi. Based on the findings, this study gives some recommendations to improve customer value and customer satisfaction by strengthening retailers' multichannel integration capability.

Keywords: Multichannel Integration Capability, Customer Value, Customer Satisfaction, Retailers.

JEL Classifications: M10, M20, M21

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1. Introduction

Hanoi has been considered recently one of the most attractive retail markets. Besides the remarkable opportunities for retail enterprises in Hanoi, there have been challenges, such as the rapid change of customer behavior, the aggressive competition, the changes of retail technologies, or the complicated Covid-19 pandemic. To maintain and increase the competitiveness, retail enterprises operating as supermarkets (hence referred to as retailers) in Vietnam in general and in Hanoi, in particular, must focus on increasing value to customers and improving customer satisfaction. In recent years, customers are more interested in modern retail models based on technologies which put significant pressure on

retailers to quickly expand and diversify retail channels; thereby contributing to the improvement of customer value and customer satisfaction. In other words, in the context of more aggressive competition, the rapid change of customer demand, it is necessary for retailers to nurture and strengthen the capability of retail channel integration (multichannel integration capability - MIC) to bring more value to the customer, and achieve their satisfaction (Kabadayi et al., 2017; Goraya et al., 2020).

The studies on MIC have been interesting. MIC refers to the firm's ability to coordinate retail channels to create an integrative retail system, contributing to creating customer value, and sustaining the firm's competitiveness (Oh et al., 2012; Cao & Li,

2015). In terms of improving the customer relationship, an effective MIC allows retailers to diversify and facilitate the method of information access and purchasing behavior of customers (Kabadayi et al., 2017). In addition, if a retailer successfully establishes a multichannel integration system, it may reinforce customer trust and speed up the customers' decision-making (Zhang et al., 2018). Thus, MIC has shown an important role in bringing more value to customers (Kabadayi et al., 2017; Yrjölä et al., 2018; Goraya et al., 2020).

For customer satisfaction, previous studies have revealed the vital role of improving customer satisfaction in reaching firm success (Mcdougall & Levesque, 2000; Yang & Peterson, 2004; Kuo et al., 2009; Tacconelli & Wrigley, 2009). In that, to get customer satisfaction, a firm should improve the quality of products and services provided (Chang et al., 2009; Hussain et al., 2019), customer value (Mcdougall & Levesque, 2000; Yang & Peterson, 2004; Kuo et al., 2009), or customer's purchasing intentions (Kuo et al., 2009). In particular, for service businesses, customer value is considered an important factor that impacts customer satisfaction (Kuo et al., 2009).

Hence, it can be seen that an effective MIC allows a firm to create and increase customer value (Kabadayi et al., 2017; Goraya et al., 2020). When perceived value increases, customer satisfaction will be significantly improved (Mcdougall & Levesque, 2000). Although there have been several studies on the relationship between MIC and customer value, and the impact of customer value on customer satisfaction, there have been few studies exploring the mechanism impact of MIC on customer satisfaction through customer value. Additionally, for retail enterprises, MIC plays an important role in improving customer value and achieving customer satisfaction but studies on this topic are little interested. Meanwhile, in the context of the retail sector, retailers in Vietnam in general and retailers in Hanoi in particular need to quickly diversify and integrate their retail channels (MIC); thereby, contributing to remarkably improving customer satisfaction through bringing more value to their customers. For these above mentioned, this study is conducted to examine the impact of MIC on customer satisfaction through customer value of retailers in Hanoi. From the research findings, this study gives some recommendations for retailers in Hanoi, in particular, to improve their customer satisfaction by providing

more customer value based on nurturing and developing their MIC. Excluding the introduction and conclusion, this paper includes four main parts: (1) Reviewing the literature of MIC, customer value and customer satisfaction, and supposing the research model and hypotheses; (2) Reporting the research methodology; (3) Summarizing the results and findings; and (4) Giving the discussion and recommendations.

2. Literature review

2.1. Multichannel integration capability

MIC refers to the firm's ability to coordinate retail channels to create synergies and bring benefits to its customers (Cao & Li, 2015). Oh et al. (2012) argue that MIC is the total of a firm's efforts in offering more value to customers including pre-purchase, purchase, and post-purchase. If Cao and Li (2015), Oh, Teo and Sambamurthy (2012) evaluate the effectiveness of MIC through the lens of retailers' managers, recent studies have focused on considering MIC through customers' viewpoints (Goraya et al., 2020; Herhausen et al., 2015; Zhang et al., 2018). Accordingly, customers' feedback about multichannel integration allows retailers to get objective assessments that are valid data to reinforce their MIC and contribute to improving both customer value and customer satisfaction. Because customer satisfaction is the main concern in this study, MIC also needs to be based on the viewpoint of customers. Thus, this study adapts the definition of MIC of Zhang et al. (2018) and Goraya et al. (2020), considering MIC as "*the retailer's ability to coordinate all channels to create synergies for the retailers and offer seamless shopping experience to its customers*". An effective MIC not only allows customers to easily choose retail channels they want but also integrates and synchronizes promotion programs, customer services as well as product information and prices on retailers' channels (Zhang et al., 2018; Goraya et al., 2020).

2.2. Customer value

Customer value (customer perceived value) plays an important role in achieving the firm's success (Holbrook, 1994; Yang & Peterson, 2004). Customer value refers to the customer's perception of the net benefit for what they received and what they gave; customer value also represents a trade-off between customer's perceived benefits and sacrifices in a firm's offerings (Chang, 2009). Similarly, Kuo et al. (2009) reveal that customers pay more attention to the comparison between their sacrifices and benefits

of a firm's products and services. Therefore, customer value has the strongest impact on customer intention and purchasing behavior (Chang & Wildt, 1994). Customers feel equitably treated if they perceive that the ratio of their outcome to inputs is worth the ratio of outcome to inputs experienced by a firm (Oliver & DeSarbo, 1998). To decide on purchasing, customers will measure the value they can get by making the comparison of a firm's offerings with others (Yang & Peterson, 2004). It can be seen that previous studies affirm the importance of improving customer value. Because customer value relates to the customer's benefits and sacrifices of money, time, effort, and other opportunities, this study adapts the definition of customer value of Kuo et al. (2009) and consider customer value of retailers as *"the evaluation of benefits of a product or service by customers based on their advanced sacrifices and perceived performance when they use products or services"*. To determine customer value, a retailer should focus on bringing more value to its customer through enhancing product/service quality, convenience, and benefits, and reducing costs and sacrifices that they may spend such as money to purchasing products or services, sacrifices of time, efforts and other costs of opportunity. Thus, there are three questions that a retailer needs to clarify to identify customer value: (1)- What exactly does the customer value?, (2)- Of all things customer value, on which ones should a retailer focuses to achieve advantage?, and (3)- How well do customer think a retailer delivers that value? (Kuo et al., 2009).

2.3. Customer satisfaction

Customer satisfaction is considered one of the important factors for firms to evaluate their success (Oliver, 1999). Improvement of customer satisfaction plays a vital role which allows firms not only to retain present customers but also to attract new customers (Hussain et al., 2019). Regarding the definition of satisfaction, Woodruff (1997) supposes that satisfaction refers to the feelings of customers in response to evaluations of their experiences with a product/service. Verma & Chaudhuri (2009) suppose customer satisfaction indicates the emotional response of customers after experiencing a product or service of a firm/business. Customer satisfaction relates to the degree of (1)- Value that customers perceived and expected for a product or service of a firm (Hong-kit Yim et al., 2004), (2)- Total response of customers to their purchasing experiences (Lin & Wang, 2006). Oliver (1993) considers customer sat-

isfaction as an emotional response of consumers to the most recent experiences with a firm. Alolayyan (2018) reveals that if the firm's products or services exceed the expectations of customers, it will increase the rate of repurchase. In general, previous studies agree that evaluation of customer satisfaction which can be conducted through customers' feelings and emotions is important to identify the firm's success. Adapting from previous studies, Kuo et al. (2009) define customer satisfaction as *"The total consumption perception of consumers when using value-added services"*. Because this study focuses on considering customer satisfaction of retailers which are operating as a service organization, customer satisfaction of retailers refers to all consumers' response to their purchasing experiences in retailers' stores including both online and offline stores. For retailers, the definition of customer satisfaction in this study is adopted from Kuo et al. (2009).

To increase customer satisfaction, a retailer may provide better services than its, or offer superior shopping experiences Kuo et al. (2009). Meanwhile, Lin & Wang (2006) believe that customers will be satisfied with the retailer after they experience and develop their own positive emotions and feelings about the retailer's services. Overall, previous studies admit that customer satisfaction may be evaluated through customers' perceived value and their purchasing experiences. For retailers, customer satisfaction in this study will be evaluated on (1)- The satisfaction of customers with the value-added services provided by this retailer, (2)- The satisfaction of customers with retail services provided by this retailer, and (3)- The level of customers' demands and expectations.

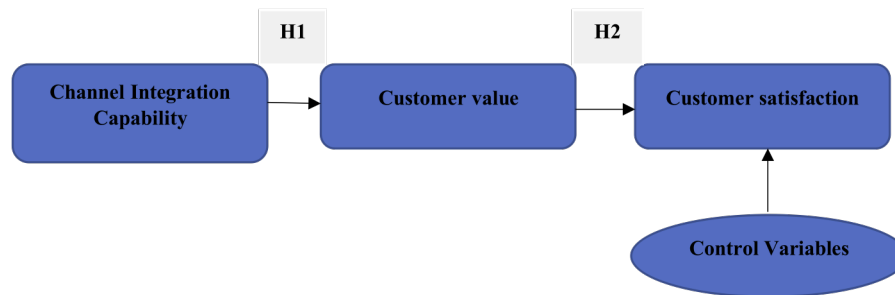
2.4. Research model and hypotheses

2.4.1. Research model

This study examines the impact of MIC on MIC on customer satisfaction through customer value of retailers in Hanoi. As a fundamental factor to create and increase value to the customer, MIC plays as an exogenous variable that affects the customer value, contributing to improving customer satisfaction of retail enterprises in Hanoi. Additionally, since there are probably significant differences in customer demographics, control variables which include customers' age, education, and occupation are tested. Thus, the research model is established as follows:

2.4.2. Research hypotheses

The relationship between multichannel integration capability and customer value



Source: Proposed by authors

Figure 1: The research model

In terms of the relationship between MIC and customer value, several studies have shown a positive relationship. In particular, Kabadayi et al. (2017) suppose that MIC plays an important role in improving the customer value of retail banks in the United States. Goraya et al. (2020) argue that the more benefits customer receive from the multichannel integration operation of a firm, the more value they will perceive. Similarly, studies of Yrjölä et al. (2018); Zhang et al. (2018) both agree with the positive relationship between MIC and customer value. These trends all suggest a favorable mechanism, thus we hypothesize:

Hypothesis H1: MIC has a positive impact on the customer value of retailers.

The relationship between customer value and customer satisfaction

For the relationship between customer value and customer satisfaction, previous studies have revealed a favorable influence (Kuo et al., 2009; McDougall & Levesque, 2000; Zhang et al., 2018). In particular, a study by Kuo et al. (2009) suggests that customer satisfaction of telecom enterprises in Taiwan can be improved by bringing more value to their customers. McDougall & Levesque (2000) argue that when customers perceive more value and benefits, they will be more satisfied. Zhang et al. (2018) show strong evidence that customer satisfaction will be greatly improved if a firm provides more value to its customers. It can be seen that previous studies suggest the positive influence of customer value on customer satisfaction. Therefore, we hypothesize:

Hypothesis H2: Customer value has a positive impact on customer satisfaction of retailers.

Control variables

Control variables can be used to increase the finding's robustness (Pantano & Viassone, 2015).

Because this study focuses on investigating the relationship between MIC on customer satisfaction through customer value, it is important for retailers to consider carefully the influence of demographic factors of customers that may impact their satisfaction (Wallace et al., 2004). Pantano (2014), Pantano & Viassone (2015) believe that individual characteristics of customers may impact their perceptions and assessment for a retailer's multichannel integration operations. Hence, it is necessary to examine the influence of demographic factors of customers on their satisfaction through their perceived value of a retailer's MIC. This study uses demographic factors of customers, including customers' age, occupation, and education as control variables, to investigate the differences of customer groups in the relation of MIC - customer value - customer satisfaction of retailers.

3. Methodology

3.1. Measures

3.1.1. Exogenous variables

The exogenous variable of this study is MIC. MIC is constructed as a reflective and 1st-order factor. The dimensions for MIC are adopted from Goraya et al. (2020). There are five items of MIC coded from MIC1 to MIC5.

3.1.2. Endogenous variables

The endogenous constructs are customer value and customer satisfaction. Both customer value and customer satisfaction are the reflective and 1st-order constructs. The dimension of these constructed is adopted from Kuo et al. (2009). There are three items for customer value which are coded CV1, CV2, and CV3; and three items for customer satisfaction which are coded CS1 to CS3.

3.1.3. Control variables

This study uses control variables to eliminate the differences in consumers' demographics that may

influence the research results. The control variable includes three items which are: "Age of respondents", "Education of respondents", and "Occupation of respondents". The dimension is adapted from Pantano & Viassone (2015), Shen et al. (2018).

3.2. Questionnaire design

The survey questionnaire included three sections. The first section referred to the introduction of authors, the purpose of this survey, and the instruction for respondents to answer the questionnaire. The second section included three parts based on the variables which are mentioned in this study. The last section concentrated on the profile of respondents: age, sex, occupation, and education. To measure the view of respondents, the five-point Likert-type scale is used in this study, the ratings ranged from "strongly disagree" code 1 to "strongly agree" code 5.

3.3. Samples and data collection

A survey of the customer is used to collect data. The unit of this study was a customer of retailers in Hanoi (a customer). However, because a population survey is expensive and impossible, a random sampling method is selected. Since this study focuses on the five biggest retailers in Hanoi which are WinMart, Co.op mart, Big C (Topsmarkets), Lotte Mart, and Aeon supermarket, customers who have visited or purchased in these retailers will be research samples. In addition, as mentioned above, this study aims to investigate customer value and satisfaction for MIC of retail enterprises, customers who have not visited or accessed online stores or mobile shopping Apps of these five retailers will not be chosen.

In terms of survey size, Hair et al. (2014) recommend that the number of samples should be at least five times larger than the number of observation variables in the research model. Sekaran & Bougi (2010) suggest the samples should be 10 times larger or more than the number of variables. Because of a consumer survey, to get reliable data, this study follows the suggestion of Sekaran & Bougi (2010). Accordingly, there are 19 observation variables in the research model, the study expects to achieve at least 190 responses.

Due to the complicated conditions of the Covid-19 pandemic, an indirect approach is used to collect data. The questionnaire is designed in the form of a Google Form, the link is sent through social sites, online newspapers, and consumer groups in Hanoi. To increase the response rate, the authors publish the

introduction about the purpose of the survey. The survey was carried out for 2.5 months, from mid-September 2021 to the end of November 2021. In total, there were 249 valid responses which accounted for a 73.67% response rate.

The descriptive statistics of respondents are shown in Table 1. For respondents' age of responders, customers are 18-35 years old contribute 75.1 percent, 36-45 years-old respondents account 20.5 percent. For sex, most respondents are female (88 percent). For occupation, customers work as a business, and freelance business is the largest proportion (48.0 percent). For education, most of the respondents have a college degree or higher.

3.4. Research methodology

PLS-SEM is used to test the research hypotheses by selecting Smart-PLS for data analysis. For PLS-SEM, there are two steps for analysis: (1)- Testing the outer model by examining the measurement model), (2)- Testing the inner model by examining the structural model.

For step 1, it is required to check the convergent validity, the construct reliability, and the discriminant validity. Hair et al. (2014) suggest examining Outer-loading of all items, Cronbach's Alpha, CR, and AVE for all constructs to check convergent validity and construct reliability. Accordingly, the outer loading of each item should be greater than 0.7, both Cronbach's Alpha and CR of all constructs must be at least 0.6, and AVE should be greater than 0.5. In case the outer loading of an item ranges from [0.4; 0.7], it is suggested to keep the items if Cronbach's Alpha, CR, and AVE scores are satisfactory (Hair et al., 2014). Finally, examination of discriminant validity to identify the statistical difference between all pairs of constructs by Fornell & Larcker scores. Accordingly, the latent variables are satisfactory for discriminant validity if a latent variable is greater than any correlation coefficient between these variables and others.

For step 2, the inner model is implemented. Firstly, it is required to check the multi-collinearity by using VIF. Hair et al. (2017) suggest that VIF should be less than 5 to ensure that the inner model does not have multi-collinearity. Next, the examination of R^2_{adj} to identify the total variance of customer value which is explained by MIC, and the total variance of customer satisfaction which is explained by customer value. After that, evaluation of the direct impacts of MIC on customer value, and customer value on customer satisfaction by boot-

Table 1: The descriptive statistics of respondents

		Frequency	Percentage (%)	Validity percentage	Cumulative percentage
Age	Under 18-year-old	8	3.2	3.2	3.2
	18-25-year-old	111	44.6	44.6	47.8
	26-35-year-old	76	30.5	30.5	78.3
	36-45-year-old	51	20.5	20.5	98.8
	46-59-year-old	3	1.2	1.2	100.0
	Total	249	100.0	100.0	
Sex	Male	29	11.6	11.6	11.6
	Female	219	88.0	88.0	99.6
	Other	1	0.4	0.4	100.0
	Total	249	100.0	100.0	
Occupation	Public servants	24	9.6	9.6	9.6
	Officers	40	16.1	16.1	25.7
	Businessman	56	22.5	22.5	48.2
	Administrators	25	10.0	10.0	58.2
	Housewife	10	4.0	4.0	62.2
	Freelance business	61	24.5	24.5	86.7
	Students	32	12.9	12.9	99.6
	Others	1	0.4	0.4	100.0
	Total	249	100.0	100.0	
Education	Postgraduate degree	32	12.9	12.9	12.9
	University degree	90	36.1	36.1	49.0
	College degree	57	22.9	22.9	71.9
	High school diploma or equivalent	69	27.7	27.7	99.6
	Others	1	0.4	0.4	100.0
	Total	249	100.0	100.0	

Source: Smart-PLS analysis (2021)

strapping (with 5000 bootstrapped samples) and using a one-tailed test (Hair et al., 2014). It is needed to check the results by P-value (must be <0.05), T-Value (must be > 1.65), Path coefficient, and confidence intervals bias. Because this study investigates the direct impact, it is suggested to examine the effect size (f^2) to quantify how substantial the significant effects are.

4. Results and findings

4.1. Assessment of model using PLS-SEM

The results of construct reliability are shown in Table 2. Firstly, checking the construct reliability by Outer loading, Cronbach's Alpha, and CR. Outer

loading scores of all items range [0.738; 0.885]. Cronbach's Alpha and CR scores of MIC, CV, and CS are greater than 0.7, ranging from 0.769 to 0.830 and 0.867 to 0.898, respectively. These results illustrate that all items are satisfactory for the construct reliability. Next, examination of the convergent validity by AVE. The results show AVE of MIC, CV and CS are 0.565, 0.746, and 0.684, respectively (>0.5). Thus, all the items are qualified for convergent validity. Lastly, testing the discriminant validity by (Table 3). The results show that scores of MIC, CV, and CS are greater than any correlation coefficient between these variables and others.

Therefore, all the items and constructs in the model meet the requirements of the discriminant validity.

Finally, testing the hypotheses through the bootstrapping algorithm of 5000 research samples. The results are described in Table 6.

Table 2: Results of the measurement model measurement

Items and constructs	Outer loading	Cronbach's Alpha	CR	AVE
Multichannel integration capability (MIC)		0.808	0.867	0.565
MIC1: I can find consistent brand promotions and advertisements in the retailer's physical store and Website	0.756			
MIC2: I can find the consistency among products and price in retailer's physical store and Website	0.741			
MIC3: I can search for products and inventory status in the retailer's physical store through its website	0.760			
MIC4: I can redeem the retailer's gift coupons or vouchers in its physical store or on the Website	0.738			
MIC5: I can collect, return, repair, or exchange the products purchased online in the retailer's physical store	0.763			
Customer value (CV)		0.830	0.898	0.746
CV1: I feel I am getting good mobile value-added services for a reasonable price	0.885			
CV2: Using the value-added services provided by this telecom company is worth for me to sacrifice some time and efforts	0.865			
CV3: Compared with other telecom companies, it is wise to choose this telecom company	0.840			
Customer satisfaction (CS)		0.769	0.867	0.684
CS1: I am satisfied with the value-added services provided by this telecom company	0.819			
CS2: I think this telecom company has successfully provided value-added services	0.837			
CS3: This value-added service is better than expected	0.826			
AGE		1.000	1.000	1.000
OCCUPATION		1.000	1.000	1.000
EDUCATION		1.000	1.000	1.000

Source: Smart-PLS analysis (2021)

4.2. Assessment of Structural model

The first step of the structural model assessment is checking the multi-collinearity by using the coefficient of variance magnification (VIF). Table 4 indicates VIF scores between two pairs of constructs are much less than 5, which is fit for the analysis.

Next, examination of R^2_{adj} . As shown in Table 5, R^2_{adj} scores indicate the significant explanation of endogenous variables, which explains 20.1% of MIC, and 46.2% of customer value of retailers in Hanoi.

We can see that both two research hypotheses about the influence of MIC on customer value, and customer value on customer satisfaction are supported.

Firstly, MIC significantly and positively impacts customer value of retailers in Hanoi ($\beta = 0.451$; t -value = 7.125 > 1.65; p -value = 0.000 < 0.005; $f^2 = 0.256$). This result illustrates that nurturing and developing MIC will remarkably improve customer value. Secondly, the research result has confirmed

Table 3: Fornell & Larcker index

	MIC	CV	CS	AGE	OCCUPATION	EDUCATION
MIC	0.752					
Customer value	0.451	0.864				
Customer satisfaction	0.501	0.684	0.827			
AGE	0.048	0.054	0.052	1.000		
OCCUPATION	-0.068	-0.083	-0.051	-0.178	1.000	
EDUCATION	-0.064	0.015	-0.002	-0.282	0.404	1.000

Source: Smart-PLS analysis (2021)

Table 4: Checking multi-collinearity

	MIC	CV	CS
MIC		1.000	
CV			1.001

Source: Smart-PLS analysis (2021)

Table 5: R^2 and R^2_{adj}

	R Square	R Square Adjusted
Customer value (CV)	0.204	0.201
Customer satisfaction (CS)	0.471	0.462

Source: Smart-PLS analysis (2021)

Table 6: Examining research hypotheses

Hypotheses	The relationships	Std. Beta	Std. Deviation	T-Value	P-Value	f^2	CI		Results
							5.00%	95.00%	
H1	Multichannel integration capability has a positive impact on customer value of retailers	0.451	0.063	7.125	0.000	0.256	0.33	0.542	Supported
H2	Customer value has a positive impact on customer satisfaction of retailers	0.684	0.043	15.950	0.000	0.880	0.607	0.747	Supported

Source: Smart-PLS analysis (2021)

the important role of customer value in customer satisfaction ($\beta = 0.684$; t -value = 15.950 > 1.65; p -value = 0.000 < 0.005; $f^2 = 0.880$). However, for

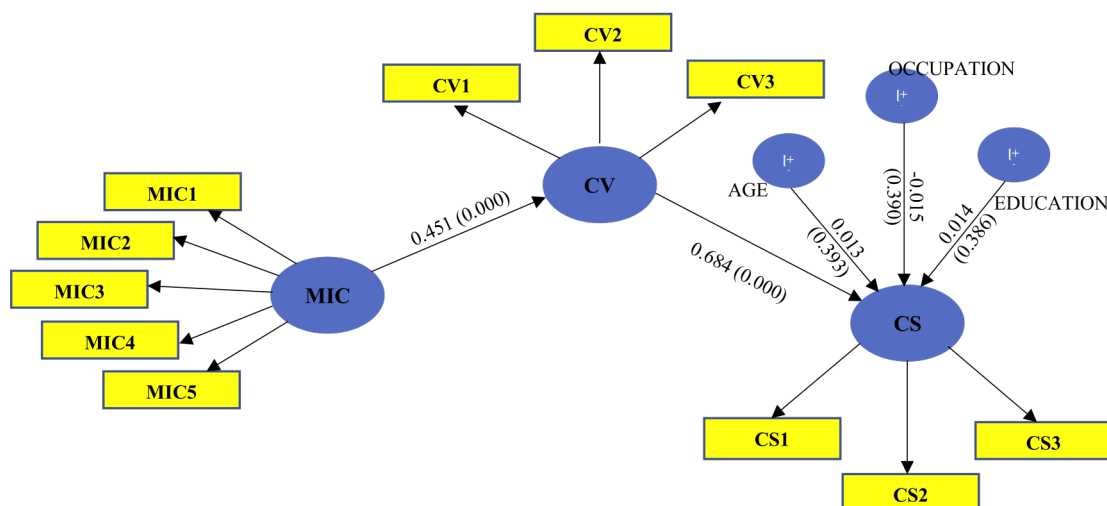
three control variables identified as customer's age (AGE), customer's education (EDUCATION), and customer's occupation (OCCUPATION), the

research results show that there is no significant impact of three control variables on customer satisfaction of retailers in Hanoi (p -value > 0.05 , t -value < 1.65 , and CI are not satisfactory). Thus, it can be affirmed that there are no big differences between the demographic factors and customer satisfaction of retailers in Hanoi. In other words, the demographic indicators of customers have not significantly influenced the customer satisfaction of retailers in Hanoi.

Figure 2 shows the assessment of the significance and relevance of structure model relationships:

if retailers integrate both online and offline retail channels, they may allow a customer to easily look for information and quickly decide of purchasing. In addition, by improving MIC, a retailer may simultaneously exhibit advertising, sales promotion programs, and offer consistent after-sales services on all retail channels for its customers. An effective MIC provides higher customer value through reducing costs of money and time and increasing benefits for them (quick assessment to information, delivery services, customer services, etc.).

For customer satisfaction, the findings show that customer value influences positively customer satis-



Source: Smart-PLS analysis (2021)

Figure 2: Assessment of the significance and relevance of structure model relationships (Path coefficient and p -value are performed on the path while R^2_{adj} is indicated in the middle of endogenous variables)

5. Discussion and recommendations

This study aims to examine the impact of innovation capability on multichannel capability and the effect of multichannel capability on the firm performance of Vietnamese retailers. The research results have shown that MIC plays an important role in providing customer value, contributing to improving customer satisfaction of retailers.

For the relationship between MIC and customer value, this finding reinforces that the positive impact of multichannel integration capability on customer value of Goraya et al. (2020), Kabadayi et al. (2017), Yrjölä et al. (2018), Zhang et al. (2018). Especially, in the context of the Covid-19 pandemic,

faction of retailers. In other words, customers feel satisfied if they get more benefits and value from retailers. This finding strengthens the empirical evidence on the positive influence of customer value on customer satisfaction that has been suggested by Francioni et al. (2018), Kuo et al. (2009), McDougall & Levesque (2000), Yang & Peterson (2004). For a retail business, this research result also reinforces the viewpoint of the necessity of improving customer satisfaction by increasing customer benefit and value that has been supposed by Goraya et al. (2020), Zhang et al. (2018). Especially, the findings also indicate that customer satisfaction can be significantly improved if retailers provide more value

to customers based on strengthening the MIC. If retailers obtain an effective MIC, they may allow their customers to have more choice in assessing information and selecting the most convenient channel for their purchasing. Thereby, customers will reduce their sacrifices of money, time, effort, and other opportunities which lead to enriched customer value, contributing to improving their satisfaction.

Although several studies on the relationship between MIC and customer value, customer value, and customer satisfaction have been implemented in recent years, there has been little research considering the relationship between MIC - customer value - customer satisfaction of retail enterprises. Therefore, by exploring the important role of MIC in increasing customer value to improve customer value, these findings have revealed new solutions for retail enterprises in adding value to customers, contributing to significantly improving customer satisfaction.

This study suggests some practical implications for retail managers. It is necessary for retailers to retain customers by bringing more value to them which leads to significantly improving customer satisfaction. Thus, we present some recommendations for retail managers as follows: (1) Retailers should quickly expand and integrate both online and offline channels. Besides, retail managers should reinforce information exchange capability between retail channels. Because customers want to get easily information for products and other retailers' promotion programs, retailers should (i)- update more frequently the availability status of products on all channels; (ii)- inform simultaneously across retailers' channels the promotion campaigns; (iii)- offer consistently and update frequently prices on both online and offline channels; (iv)- conduct sale promotions programs such as discount, coupons, or loyalty customer policies should be conducted on both online and offline channels; (v)- allow customers to choose any retail channel that they want to pick up.

(2) Retail managers should establish an online customer service department that will receive and process more quickly customer requirements and feedback on online channels. Besides, home delivery services should be enhanced to add more customer value by reducing their sacrifices of money, time, and efforts for purchasing and picking up.

6. Conclusion and limitation

In the context of an aggressive competition of the retail sector in Vietnam, in general, and in Hanoi, in particular, it is necessary for retailers to

improve and diversify retail channels. This study has had some new contributions. Firstly, the research findings have provided empirical evidence on the importance of nurturing MIC in bringing more value to customers and improving customer value. Secondly, based on the findings, this study has given some recommendations to retailers in Hanoi to improve their customer satisfaction, bring more customer value by enhancing their MIC. However, there have been some limitations which are the questions not been found in this study, such as (1)- Are there any other capabilities of retailers which can influence customer value and customer satisfaction? (2)- Does MIC directly impact customer satisfaction? and (3)- Are there any moderator variables that can impact the relationship between MIC and customer value, and customer value and customer satisfaction? These questions are considered the suggestion for our future research to elucidate the customer satisfaction of retailers, in general, and retailers in Hanoi, in particular. ♦

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Summary

Nghiên cứu này được thực hiện nhằm xem xét sự tác động của năng lực tích hợp đa kênh tới sự hài

lòng của khách hàng thông qua yếu tố trung gian là giá trị khách hàng của các doanh nghiệp bán lẻ tại Hà Nội. Từ việc tổng quan các lý thuyết có liên quan, bài viết đưa ra mô hình nghiên cứu đề xuất về sự tác động của năng lực tích hợp đa kênh đến giá trị khách hàng và sự ảnh hưởng của giá trị khách hàng tới sự hài lòng của khách hàng của các doanh nghiệp bán lẻ. Phương pháp nghiên cứu định lượng dựa trên kỹ thuật phân tích PLS-SEM bằng phần mềm Smart-PLS3 được sử dụng để kiểm định mô hình nghiên cứu. Dựa trên kết quả điều tra 249 khách hàng là người tiêu dùng tại Hà Nội, kết quả nghiên cứu đã chỉ ra sự tác động đáng kể và tích cực của năng lực tích hợp đa kênh tới việc cải thiện giá trị khách hàng. Đồng thời, nghiên cứu cũng cho thấy giá trị khách hàng có ảnh hưởng mạnh mẽ trong việc gia tăng sự hài lòng của khách hàng. Từ các kết quả nghiên cứu được chỉ ra, bài viết đưa ra một số khuyến nghị nhằm cải thiện giá trị và sự hài lòng của khách hàng thông qua việc nuôi dưỡng và củng cố năng lực tích hợp đa kênh của các doanh nghiệp bán lẻ.

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