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# Channel Integration Quality, Customer Experience and Patronage in Omnichannel Retailing

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## Abstract

**Purpose:** By integrating multiple separate online, offline distribution channels, omnichannel distribution has modernized and revolutionized the retailing sector. Omnichannel distribution supports firms by delivering seamless shopping experiences for customers throughout all touchpoints of the shopping journey. This paper aims at exploring the impact of channel integration quality on customer experience and patronage intentions in the omnichannel distribution context. **Research design, data and methodology:** An online survey was taken with 351 omnichannel experienced shoppers by utilizing the structured questionnaire. The partial least square–structural equation modeling (PLS-SEM) and Smart PLS software were employed to analyze and test proposed hypotheses. **Results:** The findings reveal that channel integration quality dimensions including breadth of channel-service choice, transparency of channel-service configuration, content consistency, and process consistency, play crucial roles in the customer shopping experience. The perceived compatibility has been influenced by the integrated interactions in which content consistency and process consistency. The findings also demonstrate the positive and direct impact of perceived compatibility on customer experience, and both factors have substantial effects on customers' patronage intentions. **Conclusions:** This study sheds light on the literature on channel integration quality, omnichannel retailing experience and customer patronage. In addition, this study provides practical implications for omnichannel retailers in enhancing customer experience and patronage.

**Keywords:** Omnichannel Retailing, Channel Integration Quality, Customer Patronage, Customer Experience, Perceived Compatibility.

**JEL Classification Code:** M10, M30, M37

## 1. Introduction

According to Shi, Wang, Chen and Zhang (2020), omnichannel or omnichannel distribution has brought a new face to the traditional retailing sector by connecting multiple different retailing channels. Along with integrating IT advancements into the retail industry, the omnichannel distribution model has emerged and gradually displacing conventional brick-and-mortar shops. Bezes (2019) stated that from the beginning of this century, traditional retailers had been compelled to become multi-channel, then cross-channel, and ultimately omnichannel because of this fundamental rationale. However, a multi-channel strategy in

which multiple channels are managed differently (Shi et al., 2020) possessed severe data mismatched, especially the inconsistency of customer experience throughout the shopping journey. Hence, omnichannel was adopted to integrate available channels in a single system to enhance the seamless experience in all customers – organization touchpoints (Li, Liu, Lim, Goh, Yang, & Lee, 2018) and promote consistency in product/service offerings (Shen, Li, Sun, & Wang, 2018). Omnichannel retailing was introduced by Lemon and Verhoef (2016) to replace the well-established multi-channel and cross-channel and is defined as a collection of integrated procedures and choices that provide a single picture of the brand across all distribution

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channels regarding physical in-store, online, mobile, contact center and social media by (Shi et al., 2020). Omnichannel retailing offers critical features of seamless information exchange, joint operations, logistics, inventories, and order fulfillment across channels (Hübner, Holzapfel, & Kuh, 2016). Studies of omnichannel retailing have been classified into two dominant categories: organizational-level studies and individual-level studies (Lee, Chan, Chong, & Thadani, 2019). However, almost all research focused on the organizational – level by examining the information delivery, logistic development, marketing issues, and order fulfillment (Chopra, 2016). In contrast, the individual-level studies on omnichannel retailing are still limited, particularly studies of customer purchase intention with omnichannel retailers and its antecedents (Zhang, Xu, & He, 2018).

The channel integration quality is commonly regarded as a critical factor determining the ability of omnichannel retailers to manage customer relationships across channels (Le & Le, 2020) and deliver customers with a seamless shopping experience throughout the customer journey (Cao & Li, 2018). Customer experience, especially omnichannel customer experience, is an omnipresent topic for academia and practice. The concept of experience is that what people desire is not products but satisfying their experiences. Although Holbrook and Hirschman (1982) advocated for a broader perspective of human behavior, emphasizing the emotional dimensions of decision-making and experience, this concept was relatively underdeveloped in the service literature (Dube & Helkkula, 2015) until the introduction of omnichannel. Omnichannel distribution model is such a technological and informational integration of retailing channels that replaces the imperfect multi-channel retailing system. In the omnichannel retailing context, customers interact with enterprises at various touchpoints along their shopping journeys and make a buying decision at any stage that they have positive experiences (Lemon & Verhoef, 2016). Hence, the customer experience concept has emerged as a central focus of numerous marketing and retailing and service studies. However, Kazancoglu and Aydin (2018) stated that studies on omnichannel shopping experience are mainly descriptive, and further empirical efforts are needed to uncover how the experience impacts customers' omnichannel intentions.

Given the above voids in the literature, this study aims at contributing to the literature of customer experience in omnichannel retailing context by exploring the impact of channel integration quality on the customer's perception of compatibility, crafting overall customer experience and subsequent the customers' patronage intentions. The goal of this study is to determine the impact of four channel integration quality characteristics (breadth of channel-service choice, transparency of channel-service configuration, content consistency, and process consistency). Then,

analyzing the influence of the integrated interaction in which content consistency and process consistency on perceived compatibility and finally assessing the relationships among customer experience, perceived compatibility, and patronage intentions of customers.

## **2. Literature review**

### **2.1. Omnichannel retailing customer experience, perceived compatibility, and patronage intentions**

According to Becker and Jaakkola (2020), several definitions and conceptual approaches of customer experience existed in the literature. However, in marketing and retailing studies, customer experience is commonly defined as multi-dimensional and holistic, emphasizing sensorial, cognitive, affective, behavioral, and social responses to a firm's offerings during the customer's entire purchase journey (Lemon & Verhoef, 2016). At any touchpoint, customers have emotional and rationality arousal (Le & Le, 2020), and the emotion itself will drive customers toward the final product choice and purchasing decision (Brun, Rajaobelina, Ricard, & Berthiaume, 2017). Moreover, according to Jain, Aagja, and Bagdare (2017), customer experience is a strategy to create superior value, boost overall satisfaction, make a differentiation, shine brand image, build up customer loyalty, and ignite positive word-of-mouth intention. Chen and Lin (2015) recommended that firms utilize tangible products and intangible services to generate unforgettable events and experiences. Over some recent decades, Foroudi, Gupta, Sivarajah and Broderick (2018) stated that researchers on retailing have taken a keen interest in how retail environments influence the consumer experience. Perceived compatibility is defined by Aljabri and Sohail (2012), and Kanchanatane, Suwanno and Jarernvongrayab (2014) as the extent to which an invention is regarded to be compatible with established beliefs and prior experiences, habits, lifestyle, and needs of potential adopters. Omnichannel patronage intention describes the extent to which a customer wishes to use omnichannel services.

### **2.2 Channel integration quality**

According to Soussa and Voss (2006), channel integration quality refers to a firm's ability to provide customers with a seamless purchasing experience across channels. Cao and Li (2015) defined channel integration quality as “the extent to which a company coordinates the goals, design, and deployment of its channels in order to generate synergies for the firm and deliver specific advantages to its customers.” From these definitions,

channel integration quality plays a central role in omnichannel retailing (Lee et al., 2019) and is regarded as the key to managing customer relationships and enhancing advanced purchasing experience across channels regardless of “click” or “brick” retailers. Moreover, the channel integration quality is identified as the driving factor of customer's overall satisfaction (Seck & Phillippe, 2013), customer's evaluations of a brand (Emrich et al., 2015), and customer's intentions (information search and purchase) (Chopra, 2016), shaping customer engagement with the brand (Lee et al., 2019). Hence, Tyrväinen and Karjaluoto (2019) strongly suggested that increasing quality for channel integration is the vital solution to make the most out of omnichannel retailing.

In the literature, there have been three dominant approaches to assessing channel integration quality. First, Shi et al. (2020) assessed the quality of channels integration by five dimensions: connectivity, integration, consistency, flexibility, and personalization. Second, Lee et al. (2019) suggested an omnichannel customized version of Sousa and Voss (2006) by recommending two groups of dimensions such as channel service configuration and integrated interactions. The channel service configuration group consists of two sub-dimensions: the breadth of channel service choice and transparency of channel service configuration. Besides, the integrated interaction group is comprised of content consistency and process consistency. Third, there have been six marketing integrated aspects, including integrated promotion, integrated product and price, integrated transaction information, integrated access, integrated order fulfillment, and integrated service. However, the approach of Sousa and Voss (2006), and Lee et al. (2019) has been widely adopted in studies examining the impact of channel integration quality on customers' experience and behavioral intentions. Hence, we assessed the channel integration quality under this study's two dimensions of channel service configuration and integrated interaction.

The literature analysis shows a lack of academic research into understanding relationships among customer experience in omnichannel, customer perceived compatibility with omnichannel retailing model and technology, and customers' patronage intentions. The focal point to date of the retailing, supply chain, distribution, and multi-channel literature has been channel management or integrating technology to advance the retailing process. There are few empirical studies in the omnichannel literature, and none specifically examine the influence of channel integration quality on two dimensions and four sub-dimensions of the consumer experience. Then, the influence of channel consistency dimensions on customers' perception of compatibility.

### 3. Hypotheses development

#### 3.1 The relationships among omnichannel customer experience, perceived compatibility, and patronage intentions.

According to Silva, Martin, and Sousa (2017), the perceived compatibility is an antecedent of e-commerce and m-commerce usage intention. Moreover, if customers perceive the shopping channel or technologies are compatible with their shopping preferences, they will have a positive experience with that enterprise (Shi et al., 2020) and be more likely to conduct shopping behaviors.

When customer positively experiences a high-quality product/service, they will have a higher intention to acquire and consume that product/service. The emotions of pleasure and enjoyment while shopping will shorten the customer's shopping journey and effectively lead to a final purchase decision and conversely. If firms fail to satisfy customers, the intention to use omnichannel services will decrease. Therefore, this study proposes hypotheses as follows:

- H1:** Omnichannel customer experience positively affects omnichannel customer patronage intentions
- H2:** Perceived compatibility positively affects omnichannel customer patronage intentions
- H3:** Perceived compatibility positively affects the omnichannel customer experience

#### 3.2. The influence of channel integration quality on omnichannel customer experience and perceived compatibility

The channel service configuration refers to the structure of availability and flexibility across all channels in the omnichannel retailing model (Le & Le, 2020). The channel service configuration is manifested through the breadth of channel-service choice and transparency of channel service configuration sub-dimensions (Lee et al., 2019). According to Shen et al. (2018), breadth of channel service choice refers to the degree to which customers can freely access information and service from different channels for their needs and satisfaction. A study by Wu and Chang (2016) confirmed that channel choice breadth is an actual cause for customer commitment and engagement. Omnichannel retailers provide a superior value for customers to place orders and take products from online or offline stores (Lee et al., 2019). In the omnichannel model, customers can flexibly choose their preferred channels to take purchase actions rather than being stuck in only one channel. Moreover, by switching freely among available channels (Kazancoglu & Aydin, 2018), the customer will have

positive emotional experiences throughout their shopping journey.

The transparency of channel service configuration refers to how customers know the differences between such service attributes across channels (Lee et al., 2019). The physical store and online store complement each other as customers can research product/service online, then come to the physical store to get professional advice from sales representatives and actual try-on. Li, Liu, Lim, Goh, Yang, and Lee (2018) argued that the combination of alternative channels provides the options of enriching product information with a comprehensive cognitive experience. Consequently, this study proposes the following hypotheses:

- H4:** Channel service configuration positively affects the omnichannel customer experience.
- H5:** Transparency of channel service configuration positively affects the omnichannel customer experience.

Sousa and Voss (2006) defined integrated interactions as the consistency and uniformity of a retailer's content (price, product, promotion) and process attributes through different channels. The content consistency allows receiving similar information and responses regardless of which channels they access (Lee et al., 2019). Customers will experience seamless emotions and responses across retailers' available channels. Thus, it helps build up and enhance positive customer experience at all touchpoints throughout the customer shopping journey, including physical and virtual environments. Le and Le (2020) stated that the more consistent content offered by omnichannel retailers, the less doubt and confusion customers felt and shorten the shopping journey towards the final purchasing decision.

The process consistency or uniformity in process attributes refers to the degree of relevant and comparable process attributes across channels, such as the feel, image, and delivery speed of services (Sousa & Voss, 2006). The

study and Le and Le (2020) confirmed that a consistent visual aesthetic is a key to the practical customer shopping experience because of the frictionless purchase journey through different channels. Accordingly, we propose the following hypotheses:

- H6a:** Content consistency positively affects the omnichannel customer experience
- H6b:** Content consistency positively affects the perceived compatibility
- H7a:** Process consistency positively affects the omnichannel customer experience
- H7b:** Process consistency positively affects the perceived compatibility

### 3.3. Proposed research model

Zhang and Benyoucef (2016) stated that the stimulus – organism–response (SOR) framework should be adopted to understand customer behavior in physical and online retail environments. This model was introduced by Mehrabian and Russell (1974) in which “S” represents for environment incentive (stimulus), “O” for individual's internal states (organism), and “R” for consequent behavior (responses). The SOR framework was employed to explore the impact of retailing environment on consumers' actions through the mediations of consumer's internal evaluations such as consumer perception of empowerment, compatibility, risk, trust, and customer experience at large (Le & Le, 2020). When adapting the SOR framework, the stimuli are dimensions and sub-dimensions of channel integration quality, including channel service configuration, transparency of channel service configuration, content consistency, process consistency. The organism was comprised of customer experience and perceived compatibility, and the response is the patronage intentions of customers.

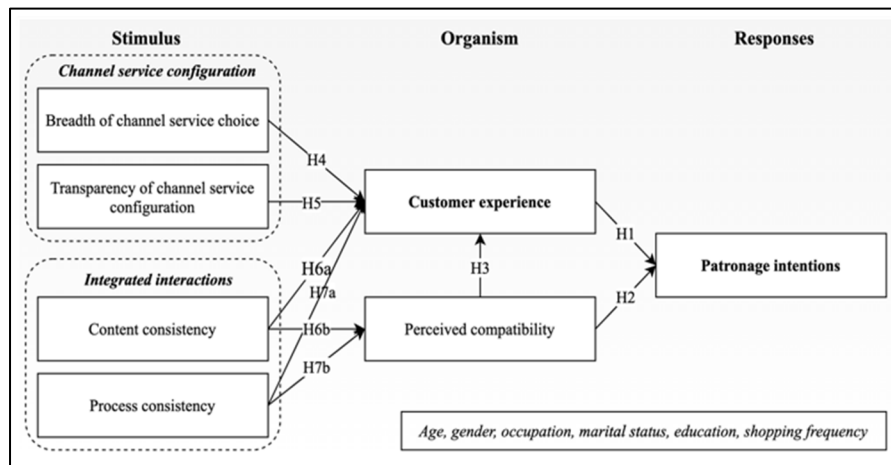


Figure 1: Proposed research model

### 4. Methods

In omnichannel retailing, customers have access to physical and online stores to take their purchasing behaviors. This study links environmental stimuli (channel integration quality dimensions) with customer organism (customer experience and perceived compatibility) and responses (patronage intentions). Hence, only omnichannel experienced customers were surveyed. We chose four big retailers who implemented the omnichannel retailing system for better surveying quality, including two IT retailers and two clothing retailers. Due to the restriction of the Covid19 pandemic, the survey was taken online with customers from the three most prominent cities in Vietnam (Hanoi, Ho Chi Minh, & Da Nang).

First, a pre-test questionnaire was conducted with ten marketers, business professionals, and 30 experienced customers to check for proposed measures' quality and content validity. By adopting the constructs and items from previous studies, the measures were designed in English, then translated into Vietnamese by a professional translator for actual surveying. After gathering the opinions and feedback from pre-test respondents, the questionnaire was adjusted to fit Vietnam's actual business and culture context. Second, the main test was developed, and the final questionnaires e-version was delivered to 400 enrolled customers by email, social media accounts (Facebook, Zalo, Telegram). Finally, we got back 351 completed responses with a rate of 87.75% after eliminating incomplete responses. Table 1 shows the details of the sample profile.

**Table 1:** Sample demographic characteristics

Gender	No	%	Age	No	%
Male	98	27.9	<23	87	24.8
Female	253	72.1	23-35	151	43.0
Total	351	100.0	36-45	75	21.4
			>45	38	10.8
			Total	351	100.0
Marital status	No	%	Occupation	No	%
Single	167	47.58	Student	79	22.51
Marriage	184	52.42	Officer	148	42.17
Total	351	100.0	Workers	56	15.95
			Freelancer	43	12.25
			Others	25	7.12
			Total	351	100.0
Education	No	%	Shopping frequency	No	%
High school	25	7.12	Several times a week	145	41.31
Undergraduate	229	65.24	Several time a month	183	52.14
Postgraduate	97	27.64	A few times a year	23	6.55
Total	351	100.0	Total	351	100.0

Collected data were analyzed by Microsoft Excel for descriptive analysis, Partial least squares path modeling (PLS-SEM), and Smart PLS for inferential statistics. PLS-SEM was adopted for its effectiveness in supporting prediction models from empirical data when different measurement scales are used in the research model and when the sample sizes are small (Birkinshaw & Morrison, 1995). The PLS-SEM analysis was executed through a two-step process, including assessing the measurement and structural models. The measurement model was assessed by examining the values of Cronbach Anpha, Internal composite reliability, convergent validity, and discriminant validity (Henseler, Ringle, & Sarstedt, 2009). The structural model was assessed both direct and indirect effects to test the proposed hypotheses. Values of path coefficients, R2, f2, Q2, and p-values were used in the evaluation.

All measured items were adopted from pre-existing studies with some modifications to fit with the research context. Previous studies used various Likert multi-item scales as the 7-point Likert scale and 5-point Likert scale; however, we employed a 5-point Liker scale for the whole constructs in this study. The current study consists of seven multi-dimensional constructs (and six controlled variables (gender, age, marital status, occupation, education, and shopping frequency). Four constructs belong to the channel integration quality: the breadth of channel-service choice, transparency of channel-service configuration, content consistency, and process consistency. The breadth of channel-service choice and transparency of channel-service configuration measures were adopted from Zhang et al. (2018); Lee et al. (2019); and Shi et al. (2020). The items of content consistency and process consistency were adapted from Shen et al. (2018); Shi et al. (2020), Le & Le (2020). The perceived compatibility was developed from the scale of Zhang et al. (2018) and Shi et al. (2020). The omnichannel customer experience was adopted from Rodríguez-Torrico, San-Martín, and Cabezudo (2020), and Shi et al. (2020). The patronage intentions scale was adopted from Zhang, He, Qin, Fu, and He (2019); Le and Le (2020); Shi et al. (2020) (Appendix).

### 5. Results

We employed the Partial least square structural equation model (PLS-SEM) through Smart PLS 3.3 to examine the measurement and structural models. Proposed relationships and conceptual models were analyzed.

#### 5.1. Assessment of measurement models

First, we estimated the convergent validity through factor loadings of each item and the Cronbach Anpha (CA),

the composite reliability (CR), average variance extracted (AVE) of each construct. According to Hair, Sarstedt, Matthews, and Ringle (2016), the outer loadings of each item should exceed 0.70, and CA of each scale is above 0.70 (Bollen, 1984), CR (Hair, Risher, Sarstedt, & Ringle, 2019), and AVE should be higher than the recommended value of 0.50 (Fornell & Larcker, 1981).

**Table 2:** Internal consistency reliability and convergent validity

Constructs	Code (Number of items)	Factor Loadings	CA	CR	AVE
Breadth of channel-service choice	BCC (4)	.815-.845	.847	.897	.685
Transparency of channel-service configuration	TCSC (3)	.823-.923	.839	.899	.748
Content consistency	CC (4)	.742-.891	.841	.894	.678
Process consistency	PC (3)	.831-.847	.791	.878	.706
Perceived compatibility	PCOM (3)	.798-.837	.763	.863	.678
Customer experience	CE (4)	.765-.841	.821	.882	.651
Patronage intention	PI (3)	.835-.857	.807	.886	.721

Note: All item loadings are significant at .001 ( $p < .001$ ).

Hair, Sarstedt, Ringle and Gudergan (2017) suggested the discriminant validity to assess the extent to which a construct is genuinely distinct from other constructs. The square root of the AVE value of each construct is recommended to be larger than its corresponding correlation coefficients to get adequate discriminant validity (Fornell & Larcker, 1981). The results of Table 3 indicated that the square roots of the AVE values of each variable are greater than any of the correlations involving the said variable. Thus, we may conclude that the measurement model showed adequate discriminant validity. (Table 3)

**Table 3:** Discriminant validity

	BCC	CC	CE	PC	PCOM	PI	TCSC
BCC	.828						
CC	.216	.824					
CE	.479	.558	.807				
PC	.188	.318	.449	.840			
PCOM	.423	.499	.602	.504	.824		
PI	.488	.460	.600	.510	.573	.849	
TCSC	.305	.393	.530	.365	.558	.529	.865

## 5.2. Assessment of Structural models

To assess the structural models, Hair et al. (2017) suggested the Variance Inflation Factors (VIF) check collinearity issues among each set of predictor variables in

which the VIF value greater than 5 indicates the multicollinearity. The analysis indicated that the lowest VIF value is 1.113 and the highest is 2.089, all lower than 5. Thus, there is no critical collinearity issue among the predictor constructs in the structural model.

Hair et al. (2016) suggested using the Standardized Root Mean Square Residual (SRMR) value to assess the quality of the structural model. The SRMR value should be below 0.08 for standard acceptable fit. The analysis result of the model fit summary shows the SRMR value of 0.059 – less than the threshold of 0.08 - indicating the model's good fit for theory testing (Table 4).

R<sup>2</sup> is the primary way to measure the model's predictive accuracy and represent the percentage of variance in the dependent variables as explained by the independent variables in the model. R<sup>2</sup> values of 0.26, 0.13, and 0.02, respectively, represent the substantial, moderate, and weak levels of predictive accuracy. In Table 4, the R<sup>2</sup> values of CE = 0.556, PC = 0.382, PI = 0.430 all reached the substantial level. Four observed dimensions of channel integration (connectivity, consistency, flexibility, and personalization) and perceived compatibility can be explained 55.6% of variance explained the customer experience. Two variables – connectivity and consistency, explained 38.2% of the variance of the perceived compatibility. 43.0% of the variance of patronage intentions was explained by the customer experience and the perceived compatibility.

Q<sup>2</sup> is suggested to assess the predictive relevance for a specific dependent construct of the model, and the Q<sup>2</sup> value should be larger than 0.00. All Q<sup>2</sup> values of table 4 exceeded "0.00" as CE (0.352), PC (0.253), and PI (0.303), indicating that the customer experience, perceived compatibility, and patronage intentions demonstrate acceptable predictive relevance.

**Table 4:** R<sup>2</sup>, Q<sup>2</sup>, SMRM

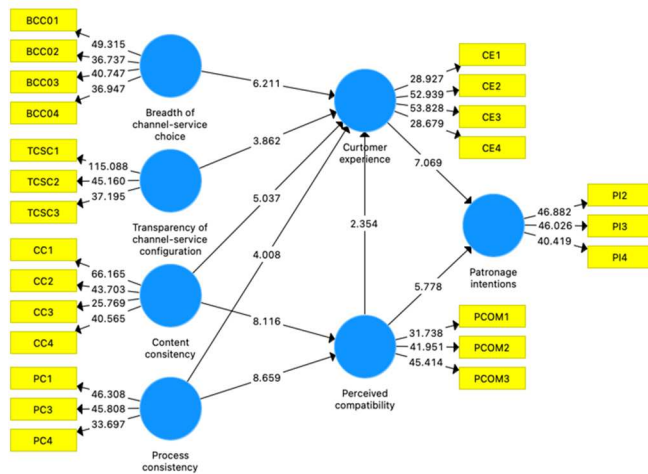
	R <sup>2</sup>	Q <sup>2</sup>	SMRM
CE (Customer experience)	.556	.352	.059
PC (Perceived compatibility)	.382	.253	
PI (Patronage intention)	.430	.303	

The following criterion to assess the structural model is path coefficients ( $\beta$  values). The path coefficients (Gronemus, Hair, Crawford, Nyalwidhe, Cunnion, & Krishna, 2010) indicate the degree of change in the dependent variable for each independent variable. The path coefficients must exceed 0.100 for the certain impact within the model and be significant at the 0.05 level of significance. Table 5 shows the path coefficients for all relationships were statistically significant due to all p values < 0.05, and all  $\beta$  values are positive. Therefore H1, H2, H3, H4, H5, H6a, H6b, H7a, H7b were supported.

**Table 5:** Hypotheses testing

Hypotheses	Path	$\beta$	t	f2	p	Decision
H1	CE → PI	.399	7.069	.179	.000	Supported
H2	PCOM → PI	.333	5.778	.124	.000	Supported
H3	PCOM → CE	.160	2.354	.028	.019	Supported
H4	BCC → CE	.260	6.211	.124	.001	Supported
H5	TCSC → CE	.187	3.862	.052	.000	Supported
H6a	CC → CE	.298	5.037	.146	.000	Supported
H6b	CC → PCOM	.377	8.116	.207	.000	Supported
H7a	PC → CE	.156	4.008	.040	.000	Supported
H7b	PC → PCOM	.384	8.659	.214	.000	Supported

The f square analysis (f2) for each path was conducted to measure the changes in R2 when a specific exogenous variable is excluded from the model and evaluate whether substantial changes occur in the endogenous latent variable (Hair et al., 2017). The f2 values of 0.02, 0.15, and 0.35 indicate small, medium, and large effects. The results of Table 5 illustrated the medium to the large impact of customer experience on patronage intentions (H1) as f2= 0.179, content consistency on perceived compatibility (H6b) as f2 values of 0.207, and process consistency on perceived compatibility (H7b) as f2 values of 0.214. These f2 have values in the range from 0.15 to 0.35. The rest showed the small to medium effect due to the f2 values ranging from 0.02 to 0.15.



**Figure 2:** PLS results

**6. Discussions**

Channel integration quality and its dimensions were examined as the driving factors of customer experience and perceived compatibility. Four sub-dimensions of channel integration quality, including breadth of channel-service choice, transparency of channel-service configuration,

content consistency, and process consistency, were confirmed to have a strong and positive effect on omnichannel customer experience. These findings are in line with the studies of Wu and Chang (2016); Silva et al. (2017); Kazancoglu and Aydin (2018); Zhang et al. (2018); Lee et al. (2019); and Le and Le (2020). Among the four examined components, content consistency has the most substantial impact on customer experience, then the breadth of channel service choice. These findings imply that to get positive experiences, customers strongly demand freedom in channel selection and the consistency of messages and contents delivered across channels.

Moreover, the integrated interactions, which consist of content consistency and process consistency, positively influence the customers' perception of compatibility. Hence, it is noted that customers only perceive the compatibly when they realize the consistency in content and process provided by firms. These findings support the studies of Boudine (2016); and Lee et al. (2019). In addition, customers' perceived compatibility positively impacts the customer experience in the omnichannel retailing context. This result aligns with the research of Silva et al. (2017), and Shi et al. (2020). Finally, the omnichannel purchasing experience and perception of compatibility positively influence customers' intentions to patronage. These findings are consistent with other previous studies of Lee et al. (2019) and Shi et al. (2020).

**7. Conclusions and implications**

Because of the emergence of technology integration in retailing industry, omnichannel retailing and the management of omnichannel distribution have attracted the focus research of academics and practitioners. By understanding the operational management mechanism and knowing for the ways to enhance the quality of channel integration, enterprises can deliver better shopping experience to customer and appeal them the patron. This research adds to the burgeoning literature on omnichannel retailing in both theoretical and practical implications, as followings.

Theoretically, this study contributes to the research stream on omnichannel retailing, customer experience, and specifically channel integration in two aspects. First, although there have been several studies on channel integration in omnichannel retailing, customer experience, and customer usage intention, the channel integration quality was almost accessed under the approach of two key dimensions: channel service configuration and integrated interactions. However, this study examines the impacts of four specific sub-dimensions to understand better the role of each channel quality aspect in building overall customer experience. Second, the perceived compatibility – an aspect

of perceived innovation was examined as the mediated factor for the relationship between channel integration quality and customer experience.

Practically, based on the empirical research results, this study recommends some managerial implications for omnichannel retailers: (1) enhancing customer experience is crucial to build customer-organization engagement and shorten the customer journey towards a final purchasing decision. Omnichannel retailers should optimize their channels to deliver a seamless shopping experience to their customers. Remarkably, they should organize multiple channels combining both online and offline stores that allow customers to choose and switch freely. (2) Content and process must be consistent across channels. (3) Omnichannel retailers should also pay attention to increasing customers' perceived compatibility of omnichannel shopping. Augmented reality, sensory devices, and virtual technologies should be adopted to enhance the compatibility for customers. However, before integrating advanced technologies in the omnichannel retailing system, retailers should do customer research to ensure that technologies are compatible with customer habits and preferences. The new and the advance are not always suitable for customer experience unless it is compatible.

## 8. Limitations and future research

This study has several limitations which may lead to future research. First, this study mainly lied on the quantitative survey method with self-reported data from the methodology perspective. Future studies are suggested using other methods such as field experiments and qualitative interviews to validate the proposed research model better. The data set for analysis was collected from only four big omnichannel retailers and in only three biggest cities which may lead to external validity. Hence, in future research, other regions and more retailers should be examined. Third, this research was taken in Vietnam, thus in the future other countries and cultures should be assessed to enhance the generalizability of research results.

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## Appendix

### Breadth of channel – service choice

- BCC1 I can purchase products via both online and offline stores of retailer A
- BCC2 I can get support through both online and offline stores of retailer A
- BCC3 I can get product/service information of retailer A both online and offline stores
- BCC4 I can give feedback for retailer A via both online and offline channels.

### Transparency of channel – service configuration

- TCSC1 I am aware of the availability of services of both online and offline stores of retailer A
- TCSC2 I am familiar with the availability of services of both online and offline stores of retailer A
- TCSC3 I know how to utilize the availability of services of both online and offline stores of retailer A
- TCSC4 I know the differences in the availability of services of both online and offline stores of retailer A

### Content consistency

- CC1 Retailer A provides consistent product information for both online and offline stores
- CC2 Product prices are consistent for both online and offline stores of retailer A
- CC3 Retailer A provides consistent promotion information for both online and offline stores
- CC4 Retailer A provides consistent stock availability for both online and offline stores

### Process consistency

- PC1 The service images are consistent in both online and offline stores
- PC2 The levels of customer service are consistent in both online and offline stores
- PC3 The feelings of service are consistent in both online and offline stores
- PC4 The performance and speed of service delivery are consistent in both online and offline stores

### Perceived compatibility

- PCOM1 Omnichannel retailing is compatible with all aspects of my shopping habits
- PCOM2 Omnichannel retailing fits into my shopping style
- PCOM3 Omnichannel retailing fits well with the way I like to shop

### Customer experience

- CE1 I have positive shopping experience with retailer A
- CE2 The experience I got with retailer A is exactly what I expected.

- CE3 I am satisfied while shopping at stores of retailer A  
CE4 The shopping experience at stores of retailer A  
has worked out as well as I thought it would.

**Patronage intentions**

- PI1 I will be loyalty customer of retailer A  
PI2 I will continue shopping at stores of retailer A  
PI3 I will recommend retailer A to my friends.  
PI4 I am likely to choose A as my preferred retailer when I  
intend to buy such product