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Determinants of Omnichannel Shoppers' Perceived Value and their Shopping Intention

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ABSTRACT

This paper aims to understand the determinants of Vietnamese shoppers' perceived value and their shopping intention towards omnichannel. First, this paper examines factors affecting customers' perceived value of omnichannel and identifies predictors of these factors. Second, it examines the association between customers' perceived value and their shopping intention towards omnichannel retailing. In doing so, this study utilizes quantitative research by means of a survey of 225 omnichannel shoppers in the electronics retail industry in Ho Chi Minh City. Exploratory factor analysis, confirmatory factor analysis, and structural equation models are employed to analyze the data. The findings show that compatibility and perceived risk have a significant association with perceived value; that the predictors of perceived risk are consistency, flexibility, and personalization; and that the predictor of compatibility is consistency. In addition, perceived value has a positive association with shopping intention. This paper supports the current knowledge of omnichannel retailing and extends the research framework by providing contextual determinants from Vietnam. Practical implications are provided to practitioners for implementing and maintaining successful omnichannel adoption.

Keywords: Omnichannel shopping, Perceived value, Shopping intention, Electronic retail industry, Vietnam

1. INTRODUCTION

With the advancement of technology, especially mobile e-commerce, the retailing landscape has continued to evolve, leading to a major shift in customers' shopping intention behavior [1]. Specifically, customers now expect to have a seamless experience across all channels that appear in their shopping journey [2, 3]. Cross-channel integration offers the benefits of a reduction in data mismatch and enhancement

of shopping experience. Given these benefits, in recent years, many retailers have been shifting towards an omnichannel strategy [4]. Omnichannel retailing is characterized as the integration of all traditional channels into one system, which encourages consumers not only to buy products through these channels, but also to connect from everywhere and at any time with brands, to provide them with an exclusive, full and seamless shopping experience that breaks the boundaries between physical and virtual shops [1, 5, 6]. Distinct from multi-channel retailing, which deploys different promotion and distribution systems for each channel, an omnichannel setting serves every user to assist their purchase, regardless of the platform concerned [7].

Omnichannel and its related issues have garnered considerable interest and were ranked third in importance in a study of service research priorities [8]. Specifically, major research on omnichannel retailing often conducts analyses from a retailer standpoint, focusing on areas such as channel integration effectiveness [4, 7] and omnichannel logistics problems [9]. However, few empirical studies focus on investigating the experiences of omnichannel shoppers [10, 11]. Studies on customer viewpoints, such as omnichannel shopping intention [11] and channel preference [12], are relatively limited and require further discussion due to omnichannel's novel nature in developing countries such as Vietnam [13].

Previous studies have shown the contextually different determinants of omnichannel shoppers' perceived value and their shopping intention across countries due to the uniqueness of cultures and availability of advanced technology [4, 6, 11, 14–16]. Nevertheless, it is important for practitioners to understand how shoppers involve themselves in an omnichannel retail setting. With respect to the emerging field of omnichannel, this paper addresses the research gap by focusing on the investigation of key determinants of Vietnamese omnichannel shoppers. In doing so, this paper aims to understand the determinants of Vietnamese shoppers' perceived value and their shopping intention towards omnichannel. In particular, this paper examines the factors affecting customers' perceived value of omnichannel and identifies predictors of these factors. It also examines the association between customers' perceived value and their shopping intention towards omnichannel retailing. This paper analyzes the case of electronics retailers in Ho Chi Minh City, Vietnam. The electronics retailing industry was selected because it is one of the few sectors in Vietnam that have launched omnichannel retail systems successfully in the country. While large electronics retailers deeply adopt omnichannel changes to create a seamless shopping experience, small to medium retailers integrate omnichannel into their strategy by making use of mobile commerce, a practice that allows an active connection with customers. This study focuses on large players in electronics retail, especially in Ho Chi Minh City, as their advanced and available information technology allows thorough adoption of an omnichannel marketing strategy.

This paper offers both theoretical and practical contributions. First, it is argued that this study is one of the few studies assessing the key determinants of Vietnamese shopping intention in the omnichannel context. By applying innovation diffusion theory

(IDT), this study advances the understanding of determinants of omnichannel shoppers' technology acceptance and use, and how these determinants affect their shopping intention behavior. The emerging trend of omnichannel in Vietnam requires a deeper understanding of how customers behave regarding their acceptance and use of the new system. Second, this study provides practitioners with deep insights into customers' shopping intention, which are expected to help them understand and improve their service quality. With an understanding of key drivers of customers' omnichannel shopping intention, retailers will be able to create an effective system that actively encourages integrated customer experiences. The rest of this paper is structured as follows. First, it presents a literature review, including key concept explanations, related theories, hypothesis development, and a research model. Second, it explains the methods used in this study. Third, it provides empirical findings. Finally, this paper presents a discussion and conclusion.

2. LITERATURE REVIEW

2.1 Omnichannel Retailing

Omnichannel is viewed as a business model that provides customers with seamless and cohesive interactions without gaps between offline and online shopping [17]. According to [1], this is a synergistic approach in the management of various available channels as well as customer touchpoints to maximize channel efficiency and customer interactions across channels. Omnichannel retailing is characterized by the integration of all traditional channels into one system, which encourages consumers not only to buy products through these channels, but also to connect from everywhere and at any time with brands, to provide them with an exclusive, full and seamless shopping experience that breaks the boundaries between physical and virtual shops [1, 5, 6]. As omnichannel shoppers, customers are enabled to access the full range of goods, orders, delivery systems, and return policies. For example, a customer on an omnichannel shopping journey can easily research a product on the mobile app, check inventory status on the website, and make a purchase at the brick-and-mortar store.

2.2 Perceived Value of Omnichannel Shopping

There are a number of consumer-centric studies on omnichannel retailing [4, 6, 14–16, 18, 19]. According to Chang et al. [20], it is important to explore whether shopping intention is affected by lifestyle or the shopping experience of consumers. To do so, these studies have adopted IDT to point out the key drivers of shoppers' shopping behavior in an omnichannel setting. These key determinants of omnichannel shoppers' perceived value consist of compatibility and perceived risk [2, 11, 20–22].

1) Compatibility

Compatibility is defined as the consistent level of an innovation perceived with potential adopters' existing values, needs and past experiences [23]. Compatibility can be measured by three predictors: connectivity, integration, and consistency [11]. Connectivity is understood as a customer's awareness of the content and information provided by cross-channel networks that are deeply linked and interconnected [11]. In

the omnichannel context, it is necessary for customers to switch between channels throughout their shopping journey. Thus, it is expected that omnichannel retailers must provide instructions and facilitate seamless switching across channels [24]. Moreover, a deep connection to all other relevant channels is needed to provide a seamless customer experience [10]. It is therefore necessary for omnichannel retailers to give their customers a connected feeling as this will facilitate the compatibility perceived by customers. Arguably, the more freely omnichannel shoppers can choose their preferred channel, the better their perception of compatibility becomes. Therefore, this paper puts forward the first hypothesis as follows:

H1. Connectivity has a positive influence on perceived compatibility in omnichannel shopping.

As a distinguishing factor between multi-channel and omnichannel, integration is defined as the extent to which the customer perceives the unification of various channel services [25]. Omnichannel strategies and advances in data technology help retailers keep a synchronized record of customers across all channels [26]. Beck and Rygl [5] state that if a customer's purchase history can be accessed from every channel during their shopping journey for electronics products, there is a high integration level. As customers experience the synchronization of experience and offerings throughout all channels, they will perceive that omnichannel is compatible with their shopping expectations. Therefore, this paper suggests the second hypothesis as follows:

H2. Integration has a positive influence on perceived compatibility in omnichannel shopping.

Consistency is commonly observed as the information consistency between different channels in an omnichannel shopping journey [27]. Denis and Karsenty [28] suggest that customers' perception of transparency across channels will make them more familiar with the service provided. This will help make the overall experience of the shopping journey more compatible with their shopping beliefs. For high-involvement products (e.g., smartphones, smart TVs) consumers in developing countries still prefer to make purchases at brick-and-mortar stores, where they can test the products and be more confident with their shopping intention [29]. Thus, it is important to investigate the influence of consistency on perceived compatibility in an omnichannel setting. Accordingly, the third hypothesis is the following:

H3. Consistency has a positive influence on perceived compatibility in omnichannel shopping.

2) Perceived risk

When studying privacy issues in different contexts, such as mobile banking [30] and online payment [31], many researchers aim to segment and characterize some types of risks of which customers should be aware. Following on from these studies, this paper examines the perceived risk factors instead of perceived privacy because omnichannel shoppers consider not only privacy issues but also risks from transaction errors, channel transition failures, and so forth.

According to Mosteller et al. [32], most often when a customer utilizes omnichannel services, the cognition effort for transitions between channels is reduced by an increase in consistency. When examining the relationship between consistency and perceived risk, it could be observed that the more consistency customers perceive in omnichannel shopping, the less risk seems to occur. During omnichannel shopping, coherent responses obtained from multiple channels will decrease perceived uncertainty and channel change risk [19]. Therefore, this paper suggests the fourth hypothesis as follows:

H4. Consistency has a negative influence on perceived risk in omnichannel shopping.

The extent to which customers can have flexible choices when shifting tasks between channels is defined as flexibility. As customers are offered various channel options at each stage of the omnichannel shopping journey, they experience more control; and as a result, a reduction in perceived risk [2]. In Vietnam, consumers often perceive online shopping as unreliable because it is difficult to request a replacement for faulty products. The lack of support from salespeople also contributes to the increase in risk perception. If Vietnamese customers can seamlessly request a return using online support as well as visit physical stores to have their issue addressed, it will reduce their perceived risk towards omnichannel. Thus, flexibility is also an important factor in maintaining the continuity of channel transitions, which directly reduces the concerns about transition failures and transaction errors, and risks overall [4]. Therefore, this paper suggests the fifth hypothesis as follows:

H5. Flexibility has a negative influence on customers' perceived risk in omnichannel shopping.

The extent to which customers can have unique, tailored experiences is defined as personalization. Hoang and Nguyen [33] point out that personalization has a direct negative relationship with perceived risk for Vietnamese e-commerce shopping. The tailored experience makes customers feel that they obtain more attention from omnichannel retailers, which in turn enhances trust towards the system and reduces perceived risk [34]. Therefore, this paper suggests the sixth hypothesis as follows:

H6. Personalization has a negative influence on customers' perceived risk in omnichannel shopping.

This study also investigates compatibility as an antecedent towards perceived value. According to Al-Jabri and Sohail [35], compatibility is defined as the alignment of an innovation with users' existing needs, beliefs and values. In the omnichannel environment, customers' experience in shopping through a particular conventional channel will predict their omnichannel shopping behavior [4, 11]. Thus, compatibility is an important factor in determining the perceived value. The seventh hypothesis is suggested as follows:

H7. Compatibility has a positive influence on perceived value in omnichannel shopping.

Falk et al. [36], in their study on retailing, proposed that the mediating role of the perceived risk of a new channel in the relationship with the existing features of the

channel is significant and can affect customers' decision to accept the new channel [37]. Thus, the eighth hypothesis is suggested as follows:

H8. Perceived risk has a negative influence on perceived value in omnichannel shopping.

2.3 The Impact of Perceived Value on Shopping Intention

In some studies on technology adoption, price value was examined as a determinant of shopping intention, as it represents the potential monetary gains and costs for using a new technology [38]. However, Carlson et al. [39] state that in the omnichannel context, price value is not relevant. Experiencing the omnichannel only requires users to have a smartphone, as all other services in the system have no associated extra fees. These extra fees are incorporated into the product price, so it is not a priority for users to evaluate the cost of using omnichannel systems versus multi-channel systems. Therefore, the price value is replaced by perceived value, in line with Hamouda [40] and Kim [25]. This paper suggests the ninth hypothesis as follows:

H9. Perceived value has a positive influence on shopping intention in omnichannel shopping.

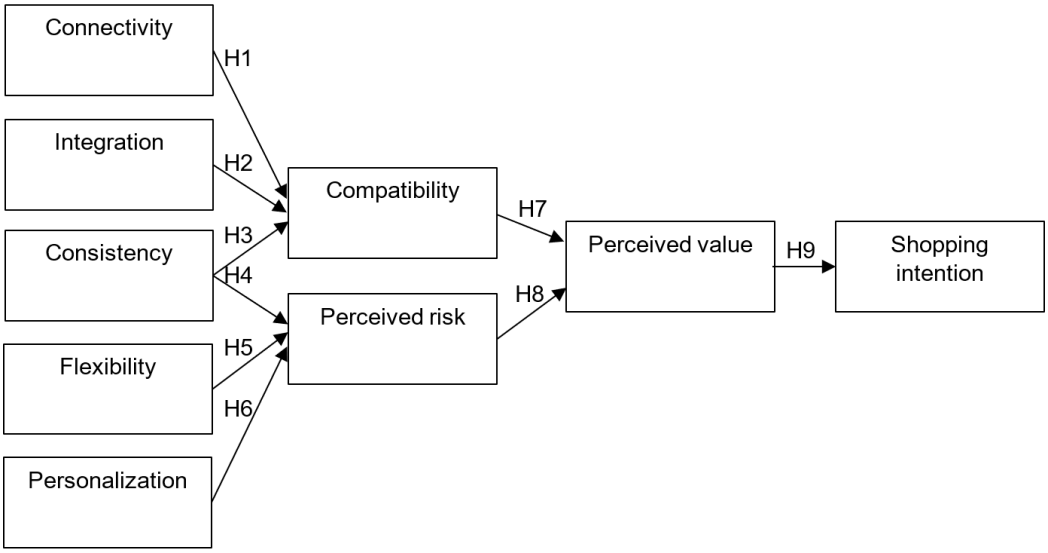

Figure 1. Proposed research framework

3. METHODOLOGIES

3.1 Research Approach

This paper mainly follows a quantitative method, which aims to assess if the proposed initial theories are valid by testing independent and dependent variables that represent factors. A quantitative method was chosen for this study as it can provide quantified attitudes, opinions, and behaviors for testing the hypotheses.

3.2 Sample and Data Collection

The sample in this study consisted of customers over the age of 18 who, within the six months preceding sample collection, shopped using more than one channel at

retailers of electronic goods and accessories in Ho Chi Minh City. This means that these customers shopped for electronics products using more than one channel among conventional platforms, blogs, social networks, and smartphone apps within the six months preceding the date of sample collection.

Initially, a pilot survey was conducted on 25 participants to adjust the indicators to suit the shopping habits of Vietnamese consumers. Their suggestions concerning the format and wording of the questions were incorporated in the revised questionnaire. Next, the official survey was delivered online via technology-related, commerce-related forums and social media communities managed by large electronics retailers. The respondents were selected based on their experience, understanding, and interest with respect to electronics retailers in Ho Chi Minh City that implement omnichannel retailing e-commerce sites, social media, and mobile commerce (i.e., Mobile World, Nguyen Kim, FPT Store, etc.). A total of 225 valid responses were obtained from 250 questionnaires collected, representing a validity rate of 90%.

3.3 Measurement and Questionnaire Design

There were 38 research statements representing 9 variables. Respondents' demographic profile questions were also included. All construct measurements in this research were employed via IDT and empirical studies with minor adaptations to match the current research context. More specifically, connectivity, integration, consistency, flexibility, and personalization scales were adopted from Hoehle and Venkatesh [27]. Perceived risk was measured with items adopted from Heijden et al. [41]. The compatibility scale followed Moore and Benbasat [23] and perceived value was adopted from Kabadayi et al. [42]. Finally, measurement items for omnichannel shopping intention were employed from Taylor and Todd [43], and Pantano and Viassone [44]. All variables in the models were constructed based on a 7-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree, to obtain the full range of opinions.

The questionnaire structure had two main parts. The first part consisted of questions about demographics (gender, age, income). A screening question was also included to assess if a respondent has omnichannel service usage experience: "Over the last six months, have you shopped using more than two channels at retailers of electronics items and accessories; for example, two or more channels among physical stores, websites, social networks, mobile applications, and ecommerce platforms?" The second part of the questionnaire contained questions about research variables (connectivity, integration, consistency, flexibility, personalization, compatibility, perceived risk, omnichannel shopping intention).

3.4 Data analysis

A reliability test, in which the internal consistency of variables is measured, was used in this study to assess whether the variables consistently reflect the construct they are measuring. Accordingly, based on Cronbach's alpha range, how related a set of items are as a group can be depicted. Next, exploratory factor analysis (EFA) was used to investigate the number of factors representing all objects to analyze the interaction and explain variability between associated variables. For this research, EFA is

important because it can reveal the underlying construct of a broad number of variables. After conducting EFA, the model was tested with confirmatory factor analysis (CFA) to assess the existence of a relationship between observed variables and their latent constructs. Finally, the structural relationships were analyzed using structural equation modelling (SEM). This approach is appropriate for the exploratory nature of this study, analyzing the structural association between observed variables and latent structures by integrating factor analysis and multiple regression analysis. With SEM, each relationship in the conceptual model in this study was tested and confirmed.

4. FINDINGS

4.1 Respondents' Profile

Table 1 presents the respondents' demographic information. It can be observed that the number of male respondents was higher than the number of female respondents. The surveys were handed out primarily online, but men seemed to be interested in taking the survey more than women due to the topic being technology-related (rather than due to the survey delivery method). However, the difference in gender distribution should not affect the validity of the survey as it is still in the acceptable range. The research data also highlights the dominance of respondents aged between 18 and 24, accounting for 55.56%. Respondents aged 25 to 39, 40 to 54, and above 55 accounted for 15.11%, 14.67%, and 14.67% respectively. It can also be observed that the respondents' monthly income was primarily below 5 million VND.

Table 1. Respondents' demographic information

Characteristics	Observations	Frequency	%
Gender	Male	147	65.33
	Female	78	34.67
Age	18-24	125	55.56
	25-39	34	15.11
	40-54	33	14.67
	55-70	33	14.67
Personal income (per month, in VND)	Below 1 million	83	36.89
	1-5 million	51	22.67
	6-10 million	22	9.78
	11-15 million	35	15.56
	16-50 million	34	15.11
Note(s): *N =225*			

4.2 Measurement Model

To test the reliability of the research measurements, this study applied the recommendations of Hair et al. [45], including Cronbach's alpha, composite reliability (CR), convergent validity, discriminant validity, and average variance extracted (AVE). Table 2 shows the results of assessing the validity and reliability of the research measurements.

Table 2. Validity and reliability of research measurements

Constructs and items	Loading	Cronbach's alpha	CR	AVE
Perceived connectivity		*.984*	*.984*	*.938*
(CN1) I can access inventory information across multiple channels	.941			
(CN2) I can access product information across multiple channels	.945			
(CN3) My understanding of product content is consistent across multiple channels	.951			
(CN4) My accounts are connected across multiple channels	***			
(CN5) Customer service experience is interconnected across multiple channels	.958			
Perceived integration		*.960*	*.960*	*.857*
(IN1) My interactions are integrated across multiple channels	.935			
(IN2) Product content is integrated across multiple channels	***			
(IN3) Product descriptions are integrated across multiple channels	.902			
(IN4) Product launches are synchronous across multiple channels	.843			
(IN5) Promotional activities are aligned across multiple channels	.969			
Perceived consistency		*.961*	*.961*	*.861*
(CS1) Trademarks, slogans and brand names are consistent across multiple channels	***			
(CS2) The service experience is consistent across multiple channels	.924			
(CS3) The service image is consistent across multiple channels	.886			
(CS4) Service response is consistent across multiple channels	.943			
(CS5) Product quality is consistent across multiple channels	.904			

Table 2. Validity and reliability of research measurements

Constructs and items	Loading	Cronbach's alpha	CR	AVE
Perceived flexibility		*.976*	*.976*	*.909*
(FL1) I can try products at physical stores and order them online	.962			
(FL2) I can choose substitute channels for a given service	.896			
(FL3) I can order online and pick up offline	***			
(FL4) After-sales service is accessible across multiple channels	.966			
(FL5) I can finish some tasks through preferred channels	.925			
Perceived personalization		*.965*	*.965*	*.874*
(PL1) Shopping suggestions are offered based on purchase history and personal information across multiple channels	.909			
(PL2) Price discounts are offered based on purchase history and personal information across multiple channels	.936			
(PL3) Online pages are customized based on purchase history and personal information across multiple channels	.963			
(PL4) Client-specific rewards are offered based on purchase history and personal information across multiple channels	.858			
Perceived compatibility		*.947*	*.947*	*.856*
(CP1) My shopping habits are compatible with omnichannel shopping	.957			
(CP2) My shopping style fits with omnichannel shopping	.916			
(CP3) The way I like to shop fits with omnichannel shopping	.889			
Perceived risk		*.936*	*.936*	*.879*
(PR1) I perceive a high risk when making omnichannel purchases	-.876			
(PR2) I perceive losses when making omnichannel purchases	-.793			
(PR3) There is a low probability of getting a bargain from omnichannel shopping.	-.894			

Table 2. Validity and reliability of research measurements

Constructs and items	Loading	Cronbach's alpha	CR	AVE
Perceived value		*.974*	*.975*	*.927*
(PV1) The omnichannel system creates positive value for its customers	***			
(PV2) Making purchases through an omnichannel system is an efficient way to manage my time	.963			
(PV3) Making purchases through an omnichannel system is quick and easy	.951			
(PV4) Making purchases through an omnichannel system is enjoyable	.960			
Shopping intention		*.973*	*.973*	*.923*
(SI1) I would purchase in an omnichannel system	.933			
(SI2) I would tell my friends to purchase in an omnichannel system	***			
(SI3) I would like to repeat my experience an omnichannel system	.975			
(SI4) I would try to use omnichannel where feasible	.969			
Note(s): ***. items omitted				

The results show that the measurements achieved internal consistency when Cronbach's alpha was greater than 0.7. To improve reliability, outer loadings with a validity of less than 0.7, namely CN4, IN2, CS1, FL3, PR3, PV1, and SI2, were omitted. It can be observed that all latent variables were represented by at least two observed variables. Moreover, each construct's AVE was greater than 0.5. As all of the AVE values were between 0.85 and 0.94, the results follow the suggestion of Hair et al. [45] that if there is no AVE below 0.5, it should be concluded that there is no error in the items that exceeds the variance represented by the latent factor structure. The results also followed the rule for good reliability put forward by Fornell and Larcker [46], which states that the CR of all items must be above 0.7. Hence, both reliability and validity were satisfactory in this research.

4.3 Structural Model

The criteria for evaluating the quality of SEM as well as the hypothesis testing steps in this study are based on the recommendations of Hair et al. [45]. It was proven that after adjustment, all the testing criteria were in either a good or acceptable range. Notably, the Goodness of Fit Index increased from 0.770 to 0.833, while the Tucker–Lewis Index increased from 0.885 to 0.924. With the confirmed SEM fit, the analysis continued with the assessment of SEM regression weights. The path coefficients related

to the effects between variables in the research model were statistically significant at the 5% significance level, except for the effects of connectivity and integration on perceived compatibility. Therefore, it was concluded that hypotheses H3 to H9 were supported. Table 3 shows the results of testing the research hypotheses.

Table 3. Results of testing research hypotheses

Hypotheses	Std. β	P-value	Conclusion
H1. CN → CP	-.019	.506	Rejected
H2. IN → CP	-.013	.611	Rejected
H3. CS → CP	.914	.000	Accepted
H4. CS → PR	-.175	.000	Accepted
H5. FL → PR	-.280	.000	Accepted
H6. PL → PR	-.520	.000	Accepted
H7. CP → PV	.002	.049	Accepted
H8. PR → PV	-.747	.000	Accepted
H9. PV → SI	.395	.000	Accepted

Among factors negatively affecting perceived risk, personalization had the strongest influence (β=-.520). Next, analyzing the determinants of perceived value, compatibility had a relatively flat level of influence, with β at .002. A notable feature was that perceived risk affected perceived value with β at .747, depicting a strong effect. Lastly, perceived value was shown to be an important factor for shopping intention in the omnichannel setting (β=.395). The revised research model is shown in Figure 2.

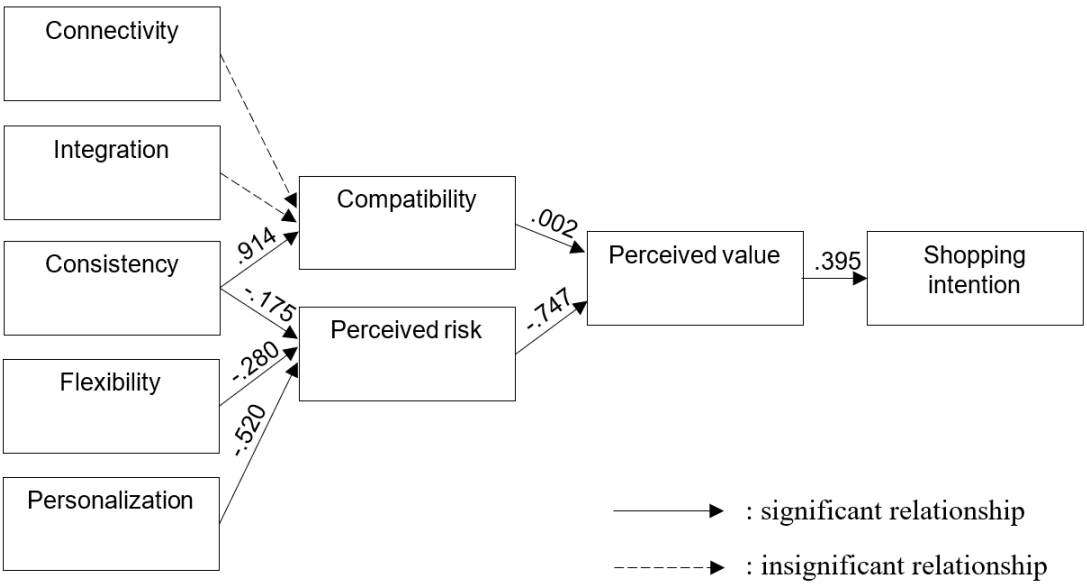

Figure 2. Final SEM results

5. DISCUSSION AND CONCLUSION

5.1 Discussion

This research sheds light on the determinants of shopping intention in the context of omnichannel retailing. Based on the empirical results, there are four noteworthy points.

First, many previous studies concerning this field or applying similar technology acceptance theories investigated the correlation between shopping intention and price value [38]. However, with results showing the significant influence of perceived value on shopping intention, this paper is in line with Carlson et al. [39], who suggest that price value can be substituted by perceived value in an omnichannel context. This solidifies the assumption that price is not a major concern for shoppers when they consider using omnichannel, as extra fees are incorporated into the product price. This is also consistent with Hamouda [40] and Kim et al. [25], who state that the price factor may not be as significant in mobile commerce and online commerce acceptance in comparison to its importance in other settings.

Second, the empirical results supporting the significant influence of compatibility and perceived risk on perceived value are in line with existing literature. The findings from this study support the suggestion by Truong [13] that an overall perception of uncertainty has a high chance of occurring during omnichannel shopping. Compatibility also maintained its impact on customers' perceived value in an omnichannel system, which is in line with the results from various studies in this field [10]. This result is also in line with the suggestion by Shen et al. [4] of the increasingly important role of compatibility in omnichannel shopping, as many behaviors of omnichannel shoppers can be explained by their behaviors when using existing conventional channels. While the relationship is significant, compatibility's degree of influence is relatively low compared to that of perceived risk. The result remains in line with Truong [13], who found that compatibility is an essential characteristic of innovation, but has not been fully discovered in Vietnam omnichannel retailing.

Third, in line with Mosteller et al. [32], the degree of consistency when considering omnichannel during the shopping journey has a significant positive impact on the cognition effort and compatibility. The finding that the more consistency the customers perceived, the less risk occurs, is also supported by Rodríguez-Torrico et al. [19]. The two other factors that were shown by this study to influence perceived risk—flexibility and personalization—have also been supported by many studies in the Vietnam context [33].

Finally, it is apparent that both connectivity and integration did not show a significant relationship with compatibility. This result is different from prior studies in this field, especially with respect to Piotrowicz and Cuthbertson [10], who suggested that deep connection and integration across all channels is needed to provide a high level of compatibility. This result leads to the insignificant role of connection and integration in describing omnichannel customers in Ho Chi Minh City. It appears that

the role of connectivity and integration is limited because they are often regarded as fundamental features of an omnichannel system [1], which may lead to an unclear perception of these aspects. Unlike consistency, flexibility, and personalization, which have a varying level of emphasis between omnichannel adoptions, connectivity and integration are the core characteristics of omnichannel system design. As such, their importance towards compatibility may be limited in omnichannel shoppers' perception.

5.2 Implications

This study not only attempts to fill the research gap concerning customer behavior in an omnichannel retailing environment, but also indicates some crucial issues with respect to designing effective channel strategies for retailers.

Understanding consumers' experience of the omnichannel has become increasingly important from a theoretical viewpoint [4, 7]. This paper advances the existing theoretical understanding of the determinants of omnichannel shoppers' technology acceptance and use, and how they affect shopping behavior. Specifically, by combining IDT and prospect models, this study advances the current literature on omnichannel shoppers' behavior (consistency, personalization, flexibility, connectivity, and integration) as well as their perceived value and risk when using various channels simultaneously. According to Konuş, Neslin, and Verhoef [47], there is a lack of research in examining how to increase customer involvement in adopting omnichannel systems. This paper aims to address this issue while also suggesting areas where additional study may be needed.

This study also provides retailers or managers with guidance on how to design an effective omnichannel strategy that is compatible with customers' perception. First, by assessing the influential behavioral factors such as perceived personalization, flexibility and consistency—which customers commonly incur during their shopping journey—retailers can create and maintain an omnichannel system that is more customer-centric. In particular, an omnichannel system that offers a high level of consistency when customers shift between channels will complement their perceived compatibility between an omnichannel shopping journey and other forms of shopping. Retailers may opt to prioritize information transparency and consistency between different channels, as Hoehle and Venkatesh[27] pointed out that information is a major determinant of perceived consistency.

Second, to negate perceived risk, retailers should focus on providing customers with unique, tailored experiences. In this study, personalization was shown to have the highest degree of impact on perceived risk, in comparison with consistency and flexibility. This translates to ensuring that customers feel that they are getting attention from omnichannel retailers, which in turn enhances trust towards the omnichannel shopping journey [34]. For example, advanced technologies such as artificial intelligence (AI), cashierless stores (e.g., Amazon Go), buy online pick up in-store (BOPIS) services for holiday shopping needs, and big data-based analysis systems could be applied to facilitate personalization.

Third, the significance of perceived risk towards customers' perceived value is also highlighted in this study. This suggests that retailers should consider adopting channel strategies that offer a low-risk perception while showing the additional benefits over conventional strategies. Most electronics retailers in Ho Chi Minh City have already implemented multiple sales channels, or a multi-channel strategy. Thus, to gain competitive advantage, it is essential to educate consumers on the value of seamless shopping experiences provided by an omnichannel system, including benefits in various dimensions, such as products and prices, promotions, transaction information, information access, order fulfilment, and customer service. With a clear understanding of benefits and risks, customers can be more empowered to manage their shopping process by leveraging technology.

5.3 Limitations and Future Research

With a scope of researching omnichannel shoppers for electronics products in Ho Chi Minh City, this paper's research results might not be fully applicable in other contexts. However, the theoretical framework can be re-assessed by future research regarding different types of products (e.g., cosmetics, fashion, food, beverages). Moreover, as the omnichannel trend continues to evolve, future research could examine changes in the popularity of omnichannel adoption. At the time of this study, in Vietnam, omnichannel remains an unconventional strategy that only large retailers use to beat the competition. Lastly, this study has a limitation with respect to considering demographic variables. It has been pointed out in many technology acceptance models that age and gender have crucial roles in moderating behavior. Hence, further research on investigating the effects of these variables in an omnichannel setting may be advantageous.

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