DETERMINING ANTECEDENTS TO OMNICHANNEL SHOPPING INTENTION AMONG FAST FASHION CONSUMERS IN THAILAND: A MIXED METHODS APPROACH

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Abstract

The purpose of this study was to investigate the relationship between the variables of customer experience, personal innovativeness, perceived innovation characteristics, perceived risk, attitude, and omnichannel shopping intentions, among fast fashion consumers in Thailand. A mixed methods approach was applied to develop the study's research instrument, conducting a pilot study and focus group interviews. Data were subsequently collected from 690 fast fashion consumers with experience in using omnichannel retail services in Thailand, using online questionnaires and convenience sampling. However, only 449 responses were deemed usable for the analysis which used Mixed Methods research techniques, Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA), and Structural Equation Modelling (SEM). Results revealed that only personal innovativeness, perceived innovation characteristics, and attitude, had a significant statistical relationship with omnichannel shopping intentions, while no significant relationship was found for customer experience and perceived risk. Findings also verified that the relationship between omnichannel shopping intentions and customer experience, as well as the relationship with personal innovativeness, was mediated by perceived innovation characteristics. Additionally, new sets of sub-variables were identified for customer experience and perceived innovation characteristics that were unique to the Thai culture and retail context using mixed methods and EFA. It was found that there were seven dimensions of

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omnichannel customer experience, namely consistency, connectivity, personalisation, accessibility, order fulfilment, flexibility, and retailer responsiveness. Regarding perceived innovation characteristics, the study confirmed that usefulness, compatibility, and ease of use, remained suitable subcomponents.

Keywords: Customer experience; Personal Innovativeness; Perceived Innovation Characteristics; Perceived Risk; Attitude

1. INTRODUCTION

With the advent of the internet and new technologies, coupled with the changing behavior and shopping habits of consumers, the omnichannel strategy has become a forthcoming and game changing development in modern day retailing. Dubbed as the new retail, this retail format blends the information-rich experience of online shopping with the advantages of shopping in a physical store (Rigby, 2011). What sets omnichannel retailing apart from its predecessors is a seamlessly integrated and personalised shopping experience (Piotrowicz & Cuthbertson, 2014; Yrjölä et al., 2018). During the past few years, studies on omnichannel retailing and shopping have continued to be a topic of great interest and growing importance. However, despite the inflow of recent contributions, academic work and research papers dedicated to the topic have remained scarce. Many of the existing studies are rather conceptual in nature (Kazancoglu & Aydin, 2018; Picot-Coupey et al., 2016) or focus on only the business aspects of omnichannel retailing and shopping, rather than the consumer aspects. Hence, there is a necessity to study omnichannel consumer behaviour (Cai & Lo, 2020).

Among the possible variants of behavioral intentions towards omnichannel shopping and retailing, shopping intention is one of the most studied. It has been described as the intent to adopt the omnichannel approach for one's shopping or to make purchases using omnichannel retail services (Kang, 2019; Shi et al., 2020; Truong, 2020). Many antecedents have been identified to have an impact on individuals' intent to use, adopt, shop, and/or make purchases via the omnichannel approach. Some of which included factors, such as customer experience (Shi et al., 2020; Quach et al., 2020), perceived service quality (Chang et al., 2017), channel integration quality (Shen et al., 2018), perceived value (Kang, 2019; Truong, 2020; Yang et al., 2020), perceived innovation characteristics of omnichannel retailing (Shi et al., 2020), perceived risk (Silva et al., 2018), privacy concerns, trust (Cheah et al., 2020), satisfaction (Zhang et al., 2018), personal innovativeness (Juaneda-Ayensa et al., 2016), and many others.

Further investigation into the subject area indicates that most extant literature has focused on studying

omnichannel consumer behavior in more mature and well penetrated markets, such as the US, UK, China, and some European countries. Although, the focus of several studies has begun to shift east, few researchers have aimed to examine consumer behavior in omnichannel retail markets, which are in the earlier stages of development. Therefore, this study seeks to contribute to the existing literature by empirically investigating customers' evaluations of omnichannel retailing and shopping, specific to consumers in Thailand. The variables examined in this study include customer experience, personal innovativeness, perceived innovation characteristics, perceived risk, attitude, and omnichannel shopping intentions. Moreover, as Jocevski et al. (2019) highlighted that a seamless customer experience was one of the key building blocks to successful omnichannel business models, omnichannel customer experience has been modelled and considered as a reflective construct to identify dimensions unique to the Thai cultural and retail context. To do so, it was decided to apply mixed methods research and Exploratory Factor Analysis (EFA) to identify new sub-variables for the construct of customer experience, as well as perceived innovation characteristics, based on Thai respondents. Teddlie and Tashakkori (2009) explained that an advantage to adopting mixed methods research was that the approach allows researchers to ask confirmatory and exploratory questions that may result in the verification and generation of theory within the same study. Chaipoopirutana (2018), citing Creswell (2003), stated that mixed methods usually involve the collection, analysis, and integration of both qualitative and quantitative data. Therefore, this study will rely on both types of data.

2. LITERATURE REVIEW AND RESEARCH HYPOTHESES

The Stimulus-Organism-Response or SOR Framework is a theory in the field of environment psychology which involves observation of the role of an environmental stimulus and its impact on individuals' affective, cognitive, and behavioral responses (Eroglu et al., 2001). It was introduced by Mehrabian and Russell (1974), who posited that the environment contained stimuli (S) that directly affect individuals' internal or emotional states (O), which in turn causes changes to their behavior (R) in terms of approach or avoidance. The author identified three basic emotional states or responses that summarise the emotion-eliciting qualities of any environment. Commonly referred to as the PAD triad, these emotional responses include the dimensions of pleasure, arousal, and dominance. However, Chang et al. (2011) argued that an individual's internal state also comprises of his or her perceptual, physiological, emotional, and thinking activities. Additionally, Bitner (1992) and Van Baal and Dach

(2005) unveiled that the framework's "response" component could include someone's intent to use, browse, buy, purchase, or retain. In retailing literature, the SOR framework was first applied to the context of the study by Donovan and Rossiter (1982). Review of the literature found that atmospheric cues and/or elements within a retail environment were often identified as stimuli. Recently, studies have also begun to identify service characteristics (Pantano & Viassone, 2015) and customer or shopping experience (Samuel et al., 2015) in the stimulus component of the framework.

2.1 Customer Experience

Customer experience was described as the fourth and latest wave of economic offerings to come after commodities, goods, and services (Pine & Gilmore, 1998). Jain et al. (2017) indicated that customer experience could be regarded as a noun, as well as a verb. Among many, Carbone and Haeckel (1994) stated that the concept referred to a feeling or impression one takes away from his or her interaction with a firm's goods, services, and atmospheric stimuli. Lemon and Verhoef (2016) also described it as a customer's journey with a firm over time starting from the pre-transactional (including searching), to the transactional to the post-transactional stage. Additionally, Berry et al. (2002; 2006) considered customer experience as one's interactions with environmental cues or stimuli that result in pleasurable or unpleasurable responses. This aligned with Terblanche and Boshoff (2001), who defined customer experience in retailing as all elements that could encourage or inhibit customers during their contact with retailers.

In regard to shopping in an omnichannel retail environment, Shi et al. (2020) identified and conceptualised five dimensions of omnichannel customer experience, namely connectivity, integration, consistency, flexibility, and personalisation. The authors defined connectivity as the degree to which retailers' cross-channel service contents and information were deeply linked and interconnected, while integration referred to how customers perceived all information systems and management operations of the retailers as unified and well-integrated across all channels. Consistency was then described as the degree to which customers' interactions with retailers involved content and process consistency, regardless of which channel was used. Flexibility represented the degree to which retailers provided their customers with flexible options and continuity in the customer experience as they migrated tasks from one channel to another, while personalisation accounted for how retailers provided their customers with individualised attention and tailored services.

Hilken et al. (2018) revealed that customer experience frequently enhanced individuals' decision making and positive behavioral intentions, such as their loyalty, purchases, continuance, and word-of-

mouth intentions. It was found that customers who had great experiences were more likely to shop and were often more ambitious with their shopping (Liang & Huang, 1998; Seckler, 2000). Among many, Dabrynin and Zhang (2019), Samuel et al. (2015), and Yang and He (2011), found evidence supporting the relationship between customer experience and purchase intentions in various contexts of shopping and retailing. Hsu and Tsou (2011) additionally found that customer experience could provide customers with profound psychological perceptions that eventually lead to subsequent use. Amongst the many, some of an individual's thoughts, often impacted by his or her experience, include their perceptions of a product or service's usefulness, ease of use, and compatibility (Giovanis et al., 2012; Su et al., 2018). Likewise, it was found that customers' risk perceptions often decreased as customer experience improved (Doolin et al., 2005; Kuhlmeier & Knight, 2005). Simpson et al. (2008) provided support to such claims by stating that customers with good experiences usually made their decisions with more confidence and were less likely to be influenced by perceptions of risk. Thus, the following hypotheses are proposed:

H1: There is a significant relationship between customer experience and omnichannel shopping intentions.

H2: There is a significant relationship between customer experience and perceived innovation characteristics.

H3: There is a significant relationship between customer experience and perceived risk.

2.2 Personal Innovativeness

Marriott and Williams (2018) defined personal innovativeness as a personality construct reflecting an individual's willingness to adopt new products or ideas that offer new experiences. Juaneda-Ayensa et al. (2016), citing Midgley and Dowling (1978), defined it as the degree to which individuals preferred to try new and different, products or channels, in order to seek out new experiences. This required a more extensive search as it involved an investigation of the relationship between the customers' personal innovativeness and their intentions to make purchases using the omnichannel approach. In a different study, Berg and Tornblad (2017) regarded personal innovativeness as an individual's propensity to be the first among others to try new channels and seek out new experiences. Both studies resulted in evidence which substantiated the significant relationship between the variables of personal innovativeness and purchase intentions in the context of omnichannel retailing and shopping. This was not entirely unexpected as the relationship between the two variables had been long established by many studies including Chiu et al. (2005) and Thakur and Srivastava (2015), just to name a few. Moreover, studies often characterise personal innovativeness

as a moderator between the relationships of several variables. Some of these have included the relationship between perceived innovation characteristics and behavioral intentions (Cheng, 2014). Yi et al. (2006) further found that personal innovativeness was an antecedent to and a direct determinant of perceived innovation characteristics and behavioral intentions. In addition, it was discovered that individuals with higher levels of personal innovativeness usually developed more positive perceptions of innovation (Agarwal and Prasad, 1998). At present, omnichannel retailing is considered as one of the leading innovations of modern-day retailing (Silva et al., 2018). Hence, the fourth and fifth hypotheses of this study are as follows:

H4: There is a significant relationship between personal innovativeness and omnichannel shopping intentions.

H5: There is a significant relationship between personal innovativeness and perceived innovation characteristics.

2.3 Perceived Innovation Characteristics

The concept of perceived innovation characteristics was popularised and discussed as a major component of Rogers' (1962) Innovation Diffusion Theory (IDT). These characteristics are described as a set of important attributes or characteristics perceived about an innovation, that can be used in determining its rate of adoption, while it is also noted that this list is not exhaustive (Rogers, 1983; Rogers & Shoemaker, 1971). Of the original five attributes, Agarwal and Prasad (1998) and Wu and Wang (2005), found that only relative advantage, complexity, and compatibility, were consistently related to the adoption of most innovations. Moore and Benbasat (1991) extended Rogers' theory, finding several overlaps between the IDT and the technology acceptance model or TAM. The authors hinted on many similarities between Rogers' attributes of relative advantage and complexity, and TAM's elements of perceived usefulness and perceived ease of use. Building on the works of Davis (1989), Davis et al. (1989), Moore and Benbasat (1991), and Rogers (2003), Yi et al. (2006) proposed a set of perceived innovation characteristics that consisted of perceived usefulness, perceived ease of use, and perceived compatibility.

In the omnichannel retailing and shopping literature, perceived usefulness refers to the perceived benefits customers gain from using omnichannel retail services and how it enhances performance (Berg & Tornblad, 2017). Silva et al. (2018) stated that by adopting the omnichannel approach for shopping, a person becomes more productive and efficient in his or her buying process. Subsequently, the authors applied Wu and Wang's (2005) conceptualisation of perceived ease of use, regarding it as the extent to

which individuals believed that making transactions via this shopping approach would be free of effort. Similarly, Berg and Tornblad (2017) stated that perceived ease of use in the context of omnichannel retailing and shopping described how individuals believed that using the various technologies along a shopping journey's numerous touchpoints would be effortless. Perceived compatibility was evaluated based on how much potential shoppers held the view that use of omnichannel retail services was consistent with their existing values, beliefs, habits, and present and previous experiences (Shi et al., 2020). Additionally, Amaro and Duarte (2015) studied perceived compatibility as an aspect of perceived innovation characteristics, finding a relationship between the independent variable and omnichannel purchase intentions. This was supported by Pechtl (2010), who found a relationship between perceived innovation characteristics and an individual's intentions to shop online. Following these previous studies, the sixth hypothesis was set as:

H6: There is a significant relationship between perceived innovation characteristics and omnichannel shopping intentions.

2.4 Perceived Risk

Bauer (1960) introduced the concept of perceived risk in the marketing context, upon realising that risk-taking should be considered as a characteristic of consumer behaviour. He defined perceived risk as "a combination of uncertainty plus seriousness of outcome involved" (Bauer, 1967, p. 24). This conceptualisation was adopted by Featherman and Pavlou (2003), who characterised the concept as felt uncertainties regarding probable negative consequences related to the use of products or services. Similarly, Peter and Ryan (1976) described customers' perception of risk as the expected loss or losses likely to occur from his or her pursuit of desired outcomes involving a service or product. In literature related to omnichannel shopping and retailing, Herhausen et al. (2015) and Shi et al. (2020) referred to it as a customer's overall assessment of uncertainty and the potential for adverse consequences during the shopping process. Yang et al. (2020) stated customers' perception of losses likely to occur from the use of "online to offline" or "offline to online" (O2O) commerce, was a definition of perceived risk related to the omnichannel shopping approach. All three sets of authors, along with Wu and Wang (2005) and Silva et al. (2018), were able to identify a direct and significant relationship between perceived risk and the intention to use the omnichannel approach for shopping or omnichannel shopping intentions. Additionally, other studies also hypothesised and found evidence supporting a relationship between perceived risk and attitude in the context of online, multichannel, and cross-channel shopping (Forsythe et al., 2006; Jarvenpaa & Todd, 1997;

Herrero Crespo et al., 2009). Accordingly, further hypotheses were set for investigation in this study:

H7: There is a significant relationship between perceived risk and omnichannel shopping intentions.

H8: There is a significant relationship between perceived risk and attitude.

2.5 Attitude

Attitude is often distinguished as an indispensable concept in the field of social psychology that also plays a leading role in studies of social and consumer behavior. The construct has been defined as an individual's evaluation of, or evaluative response to, objects or things (Roskos-Ewoldsen, 2014). Fishbein (1963) specified that attitude was a unidimensional construct reflecting one's evaluation of a psychological object that would be expressed in some degree of favorableness or unfavorableness. Davis (1993) indicated that one's attitude towards any behavior is his/her affective evaluation of that behavior. Such affective responses have been reported to be based upon an individuals' cognitions (Fishbein & Ajzen, 1975). Verhoef et al. (2007) described attitudes in the retail context as consumers' evaluations of the desirability of using a retail channel to make purchases. As a major component in several theorical models on social psychology and technology acceptance, the relationship between attitude and behavioral intentions has been examined countless times. For instance, Khare and Rakesh (2011) and Pantano et al. (2017) identified customers' positive or favorable attitudes as significant contributors to their intent to shop online. Kaushik and Rahman (2015) found that consumers' attitudes have a positive impact on their intention towards the adoption of self-service technology in a retail environment. Similarly, Hong and Shin (2018) were able to establish a significant and positive relationship between one's attitude and the intention to use omnichannel retail services. Henceforth, the ninth and last hypothesis of this study is:

H9: There is a significant relationship between attitude and omnichannel shopping intentions.

3. CONCEPTUAL FRAMEWORK

Based on review of the previously discussed extant literature, a conceptual framework is proposed, including the hypothesised relationships between customer experience with the five sub-variables of connectivity, integration, consistency, flexibility, and personalisation; perceived innovation characteristics with the three sub-variables of usefulness, ease of use, and compatibility; perceived risk; personal innovativeness; attitude; and omnichannel shopping intentions. This proposed framework is presented in Figure 1.

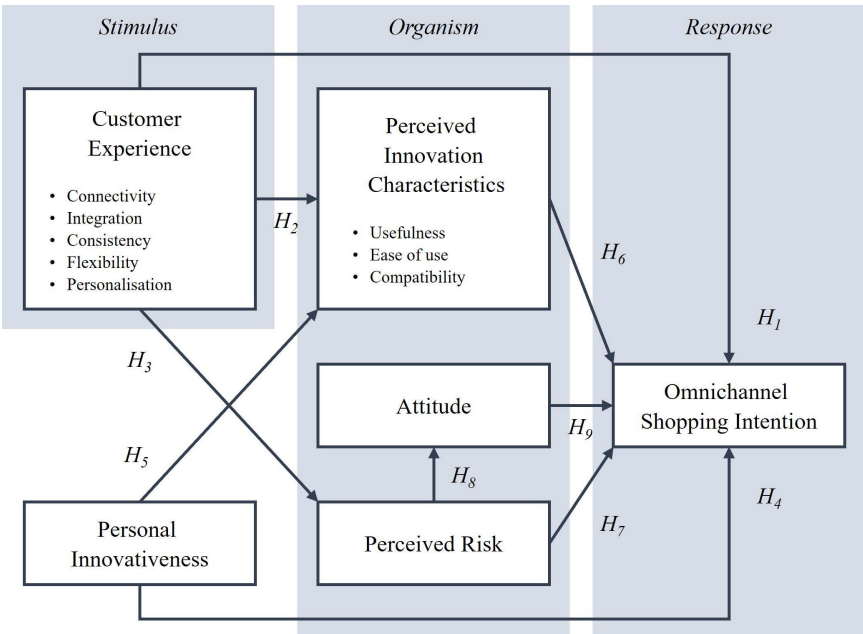


Figure 1: The Conceptual Framework

4. METHODOLOGY

A mixed methods approach of the concurrent transformative design was adopted as this study's research design, specifically during the development of the research instrument. The quantitatively acquired data was used to test the hypothesised model, while the qualitative data was used to illuminate the research findings based on Thai culture. Therefore, a questionnaire was used as the main instrument for data collection, while insights from focus groups were also used to support the main findings.

4.1 Research Instrument

To develop the study's initial research instrument, measures from previous research were adopted. Four items from Silva et al. (2018) were applied to measure perceived risk. Five items for perceived usefulness and three items for each of perceived ease of use and perceived compatibility from the same study were also adopted as measures for each subcomponent of the perceived innovation characteristics. Measures for attitude and omnichannel shopping intentions were adapted from Hong and Shin (2018), who measured each variable using five items. The four items used to measure personal innovativeness were taken from Juaneda-Ayensa et al.'s, 2016 study. Regarding the construct of customer experience and its sub-variables, the measures from Shi et al. (2020) were applied. These authors proposed six measures for each dimension (connectivity, integration, and consistency), as well as five items

for flexibility and four items for personalization. All 56 measures were anchored on a 7-point Likert scale—where one (1) indicated strongly disagree and seven (7) indicated strongly agree—and were launched to a sample of 50 respondents for pretesting. Prior to the pilot study, representatives from leading omnichannel retailers in Thailand were also consulted regarding the content of each measure, with some items being slightly modified to better suit the study's context. Furthermore, insights were extracted from group interviews with four focus groups, each with six participants, to identify additional measures for the sub-variables of customer experience and perceived innovation characteristics. These steps aligned with the processes described in Creswell's (2009) mixed methods approach of the concurrent transformative design. Cited by Chaipoopirutana (2018), a mixed method research requires both quantitative and qualitative data to be collected, analysed, and integrated. The study's quantitative research was conducted using a survey research design that involved distribution of questionnaires, while four focus groups were used to complete the qualitative research. Both methods were later administered to develop a new research instrument for collecting data from the study's final sample.

4.2 Sample and Data Collection

A Thai version of the questionnaire was distributed online via convenience sampling to fast fashion consumers, who had experience in using omnichannel retail services in Thailand. Before the commencement of data collection, Soper's (2019) "A-priori sample size calculator for Structural Equation Models" was used to determine the appropriate sample size for the study. Based on the internet-based software, the required minimum sample size to detect the effect for a model with 6 latent variables and 26 observed variables based on the anticipated effect size of 0.2, desired statistical power levels of 0.8, and probability level of 0.05, was 403 respondents. However, Zikmund et al. (2013) denoted that larger sample sizes often better represented target populations. Hence, data were collected from 690 respondents during late January to early February 2022. However, only 449 of these responses were deemed usable.

5. RESULTS AND DISCUSSION

5.1 Respondents' Demographic Profile

The demographic profile indicates that the majority of the respondents (67%) were female, while male and non-binary respondents accounted for 33% of responses. Sixty per cent of the respondents were single, and 35% were married, while 5% were either divorced, separated, or widowed. Approximately 76% of the survey participants belonged to either the Generation X (34%) or Generation Y (42%) category, indicating that they were between the ages of 41 and 56

years, or 25 and 40 years old, respectively, when completing the questionnaire. Moreover, consideration of the frequencies of highest education level, indicated that the majority of the participants held an undergraduate (45%) or a postgraduate (45%) degree. Corporate employees accounted for 50% of the respondents, while business owners made up 18%. Many of the study's respondents had a monthly income of 60,000 baht or above (39%).

5.2 Exploratory Factor Analysis

As previously mentioned, this study applied a mixed methods approach to identify additional measures for sub-variables of customer experience and perceived innovation characteristics that are unique to the Thai cultural and retail context. To simplify these into a reduced number of extracted dimensions, the entire set of 61 items representing the five dimensions of omnichannel customer experience, and 21 measures for perceived innovation characteristics', three subcomponents were subjected to an exploratory factor analysis (EFA) using IBM SPSS 28.0. Table 1 shows the results from the factor analysis of customer experience using the extraction method of maximum likelihood and rotation method of varimax, indicating that 42 items had factor loadings of more than 0.5. According to the displayed results, seven sub-variables could be identified for the construct of

Table 1: Factor Analysis of Customer Experience with Seven Sub-variables Based on Thai Respondents

Items	Factor						
	1	2	3	4	5	6	7
The service feelings are consistent across different channels.	0.669						
The service image is consistent across different channels.	0.652						
I receive consistent responses through different channels.	0.721						
The quality of products is consistent across different channels.	0.724						
The service performance is consistent across different channels.	0.772						
My shopping can be completed without difficulty regardless of which channel I use.	0.618						
I can buy fast fashion items from online stores that are also available at physical stores.	0.555						
Online and offline product information is of the same quality.	0.737						
Both offline and online information is consistent.	0.735						
I can get consistent information about fast fashion items either from online or offline channels.	0.681						
I can get consistent information about an item's reputation either from online or offline channels.	0.718						
I can query commodity information across different channels.		0.581					
I can check offline inventory through different online channels.		0.588					
The content I am currently engaged in is continuous and connected across different channels.		0.713					
My interactions with customer service across different channels are interconnected.		0.663					

Table 1 (Continued)

Items	Factor						
	1	**2**	**3**	**4**	**5**	**6**	**7**
I can get real-time updates of fast fashion items that I am interested in.		0.685					
I can immediately access necessary information about fast fashion items that I am interested in.		0.666					
The order processing of my purchases is confirmed in real-time.		0.536					
I am provided with real-time answers to questions about items I am thinking of buying.		0.503					
Shopping recommendations are offered according to purchase records and personal information across different channels.			0.706				
Shopping discounts and privileges are offered based on purchase records and personal information across different channels.			0.636				
Online browsing pages are customised based on purchase records and personal information across different channels.			0.740				
Client-specific rewards or member points are offered based on my purchase history across different channels.			0.621				
Retailers understand my preferences and recommend interesting information to me.			0.704				
I am offered personalised services by retailers.			0.723				
Retailers can meet my personal needs.			0.652				
I am provided with personalised information based on my location.			0.779				
I am always provided with useful and accurate information based on my location.			0.731				
I can choose alternative channels for a given service.				0.648			
I can accomplish specific tasks through preferred channels.				0.688			
I can shop anytime I want.				0.650			
I am provided with shipping and tracking information.					0.536		
The delivery information is readily available.					0.529		
I know when my order has been dispatched or is being compiled.					0.676		
I know when my order is ready to be picked up or has been delivered.					0.679		
I can order items online to try on at home before making payments.						0.565	
There is the flexibility of return policy (e.g., return time window, returned product conditions, refund options/methods, etc.).						0.514	
There is flexibility in retailers' handling of unforeseen problems during my shopping.						0.554	
I am provided with an instant resolution to any inconveniences or problems that may arise.							0.518
Retailers promptly answer my questions.							0.785
Retailers quickly respond to my needs.							0.750
Retailers willingly and actively accept my feedback.							0.586

Extraction Method: Maximum Likelihood**; Rotation Method:** Varimax with Kaiser Normalisation.
Note: Factor 1 = Consistency; Factor 2 = Connectivity; Factor 3 = Personalisation; Factor 4 = Accessibility; Factor 5 = Order Fulfilment; Factor 6 = Flexibility; and Factor 7 = Retailers' Responsiveness

customer experience based on Thai culture. These have been named Consistency (with 11 items); Connectivity (with 8 items); Personalization (with 9 items); Accessibility (with 3 items); Order Fulfilment (with 4 items); Flexibility (with 3 items); and Retailers' Responsiveness (with 4 items). This set of seven new sub-variables differs from the original five dimensions of omnichannel customer experience that were identified by Shi et al. (2020), who studied the omnichannel shopping intentions of consumers in China.

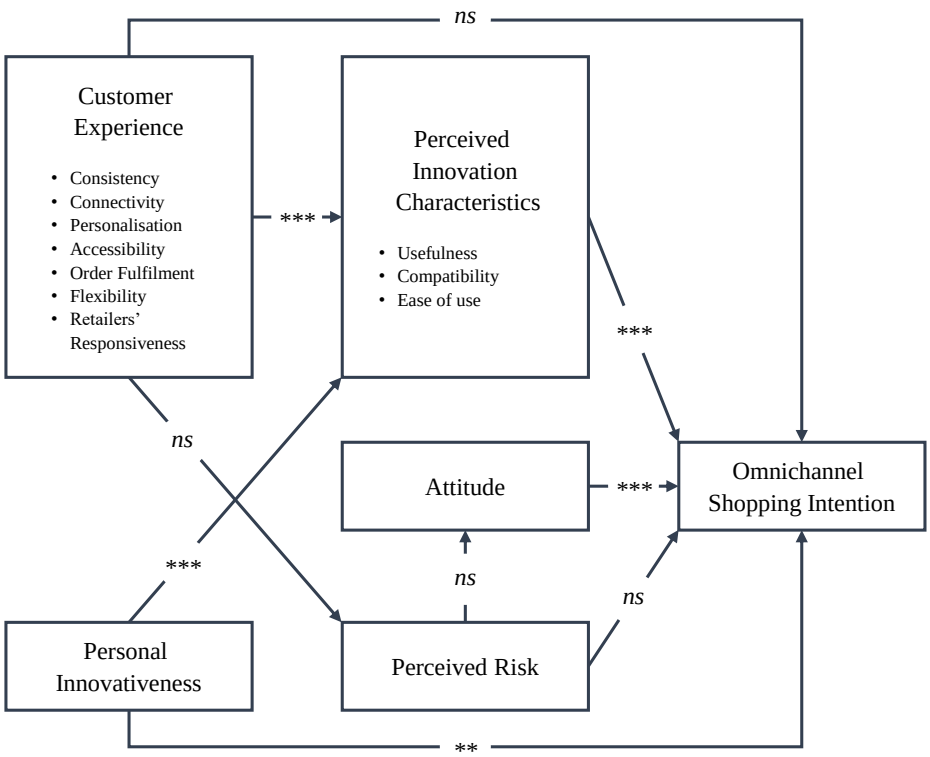
Regarding the construct of perceived innovation characteristics, the EFA validated that the construct's sub-variables consisted of usefulness,

Table 2: Factor Analysis of Perceived Innovation Characteristics with the Three Sub-variables Based on Thai Respondents

Items	Factor		
	1	2	3
The use of the omnichannel approach will improve my performance during the buying process.	0.744		
The use of the omnichannel approach will increase my productivity during the purchase process.	0.698		
The use of the omnichannel approach will increase my effectiveness during the purchase process.	0.798		
I think the use of the omnichannel approach is very useful for my involvement in the purchasing process.	0.773		
I recognise that it is easier to find what I'm looking through the omnichannel approach.	0.783		
Omnichannel shopping makes it easier for me to buy my desired fast fashion items than pure e-commerce or brick-and-mortar stores	0.694		
Use of the omnichannel approach enables me to buy genuine items more economically	0.717		
Use of the omnichannel approach allows me to buy better fitted items with more attractive conditions	0.703		
Omnichannel retailing makes it possible for me to buy a high-quality product in a physical store for an online/internet price	0.714		
With omnichannel retailing, I am provided with quicker access to the fast fashion items I want	0.704		
The omnichannel approach helps me acquire items with little to no shipping fees	0.601		
The omnichannel approach is compatible with most aspects of my transactions.		0.637	
The omnichannel approach fits with my lifestyle.		0.787	
Adopting the omnichannel approach fits well with the way I like to get involved in the buying process.		0.753	
Omnichannel shopping is compatible with all aspects of my shopping habits		0.770	
The omnichannel approach fits into my shopping style		0.787	
I find it easy to learn to use the omnichannel approach.			0.698
I consider it easy to become competent in the use of the omnichannel approach.			0.784
I think the use of the omnichannel approach is easy.			0.749
The processes involved in omnichannel shopping are clear and easy to understand			0.748
It is easy to make payments in an omnichannel retail setting (e.g., fewer steps involved, more methods that can be used, etc.)			0.648

Extraction Method: Maximum Likelihood**; Rotation Method:** Varimax with Kaiser Normalisation.

Note: Factor 1 = Usefulness; Factor 2 = Compatibility; Factor 3 = Ease of Use



Note: *** $p < 0.001$; ** = $p < 0.01$; ns = non-significant relationships

Figure 2: Revised Research Model with New Sub-Variables for Customer Experience and Perceived Innovation Characteristics Developed Based on Data Collected from Thai Respondents

compatibility, and ease of use. Eleven items were identified for usefulness, while compatibility and ease of use each consisted of five items. Table 2 shows the results from the factor analysis of perceived innovation characteristics using the extraction method of maximum likelihood and rotation method of varimax, indicating that all 21 items had factor loadings of more than 0.5.

A revision of the study's research model including the new sub-variables for customer experience and perceived innovation characteristics is illustrated in Figure 2.

5.3 Structural Equation Modelling

In addition to applying the EFA to analyse the study's data, structural equation modelling was also applied. According to Anderson and Gerbing (1988), the method entailed a two-step approach for data analysis. The first step involved the use of measurement models or confirmatory factor analysis (CFA) to test the validity and reliability of the study's scale items. The second step relies on testing the research hypotheses using structural models.

5.3.1 Measurement Model Analysis

To test the study's measurement model, confirmatory factor analysis (CFA) was performed using IBM SPSS AMOS 28.0. Based on the results shown in Table 3, the measurement model met all common requirements (factor loading ≥ 0.50; Cronbach's alpha ≥ 0.7; composite reliability ≥ 0.7; average variance extracted ≥ 0.5). First, all items had factor loadings exceeding 0.5, implying that at least 50% of the construct could be explained by the corresponding item. The item with the lowest factor loading was PI3 with a value of 0.52, while the highest was PR2, with a factor loading of 0.922. Second, the results from the Cronbach's alpha test ranged between 0.815 and 0.932, signifying that all variables were reliable and had good to excellent internal consistency. Additionally, with composite reliability values ranging from 0.796 to 0.915, all items satisfied the

Table 3 Results from Convergent Validity and Reliability Analyses

		Factor Loading	Cronbach's Alpha Test	Composite Reliability (CR)	Average Variance Extracted (AVE)
Customer Experience (CE)	CE1	0.852	0.894	0.899	0.564
	CE2	0.745			
	CE3	0.534			
	CE4	0.737			
	CE5	0.828			
	CE6	0.753			
	CE7	0.765			
Perceived Innovation Characteristics (PIC)	PU	0.736	0.886	0.796	0.565
	PEOU	0.796			
	PC	0.722			
Perceived Risk (PR)	PR1	0.887	0.913	0.914	0.726
	PR2	0.922			
	PR3	0.817			
	PR4	0.775			
Attitude (ATT)	ATT1	0.710	0.922	0.902	0.649
	ATT2	0.829			
	ATT3	0.814			
	ATT4	0.846			
	ATT5	0.822			
Personal Innovativeness (PI)	PI1	0.756	0.815	0.831	0.559
	PI2	0.758			
	PI3	0.520			
	PI4	0.906			
Omnichannel Shopping Intention (INT)	INT1	0.820	0.932	0.915	0.684
	INT2	0.809			
	INT3	0.853			
	INT4	0.821			
	INT5	0.831			

Table 4 Summary of Goodness of Fit Measures for Structural Equation Modelling

Fit Indices		Acceptable Level	Source	Model Value
Absolute Fit Measures	Normed Chi-square (χ^2/df)	< 5	Tabachnick & Fidell (2007)	4.81
	Root Mean Square Error of Approximation (RMSEA)	< 0.10	Hopwood & Donnellan (2010)	0.092
	Goodness-of-Fit Index (GFI)	0 (No fit) to 1 (Perfect fit)	Schumacker & Lomax (2016)	0.799
	Adjusted Goodness-of-Fit Index (AGFI)	0 (No fit) to 1 (Perfect fit)	Schumacker & Lomax (2016)	0.761
Incremental Fit Measures	Normed-Fit Index (NFI)	0 (No fit) to 1 (Perfect fit)	Schumacker & Lomax (2016)	0.842
	Non-Normed Fit Index (NNFI) or Tucker-Lewis Index (TLI)	0 (No fit) to 1 (Perfect fit)	Schumacker & Lomax (2016)	0.856
	Comparative Fit Index (CFI)	0 (No fit) to 1 (Perfect fit)	Schumacker & Lomax (2016)	0.87
Parsimony Fit Measures	Parsimony Goodness-of-Fit Index (PGFI)	> 0.50	Mulaik et al. (1989)	0.671
	Parsimony Normed-Fit Index (PNFI)	> 0.50	Mulaik et al. (1989)	0.76

Table 5: Path analysis by Structural Equation Modelling (SEM)

Hypotheses	Path relationships	Path co-efficient (β)	*t*-value	*p*-value	Inference
H1	CE ⇀ INT	-0.082	-1.466	0.143	Not Supported
H2	CE ⇀ PIC	0.621	12.98	***	Supported
H3	CE ⇀ PR	0.076	1.482	0.138	Not Supported
H4	PI ⇀ INT	0.135	2.719	0.007**	Supported
H5	PI ⇀ PIC	0.466	10.362	***	Supported
H6	PIC ⇀ INT	0.403	5.834	***	Supported
H7	PR ⇀ INT	0.039	1.135	0.256	Not Supported
H8	PR ⇀ ATT	0.069	1.348	0.178	Not Supported
H9	ATT ⇀ INT	0.677	14.189	***	Supported

Note: INT = Omnichannel Shopping Intention; CE = Customer Experience; PI = Personal Innovativeness; PIC = Perceived Innovation Characteristics; PR = Perceived Risk; ATT= Attitude; *** = $p < 0.001$; ** = $p < 0.01$

criterion for construct validity. Third, values of average variance extracted (AVE) ranged between 0.559 to 0.726, surpassing the acceptance threshold of 0.5, further supporting the inference of each construct's convergent validity.

5.3.2 Structural Model Analysis

Goodness of fit measures were also applied to evaluate the fit of the structural model. The results identified an acceptable fit of the model based on the statistics of $\chi^2 = 1640.198$, df = 341, χ^2/df = 4.81, CFI = 0.87, NFI = 0.842, NNFI or TLI

= 0.856, GFI = 0.799, and RMSEA = 0.092. Additionally, the model also satisfied criteria for acceptance of model fit by other goodness of fit indices, such as the PRATIO, PCFI, NCP, FMIN, and AIC. The acceptable level and model value for the main goodness of fit measures is summarised in Table 4. Based on these results, the model meets requirements for goodness of fit.

Additionally, the path coefficients and variance explained, or standardised regression weights (R^2) were also employed to assess the structural model's fit. These values are presented in Figure 2 and are further elaborated in Table 5.

6. CONCLUSION AND RECOMMENDATION

This study contributes to literature on marketing and retail management in several ways. First, the study contributes to the existing literature by empirically investigating customers' evaluations of omni-channel retailing and shopping that are specific to consumers in Thailand. A conceptual framework that hypoth-esised the relationships between customer experience, personal inno-vativeness, perceived innovation characteristics, perceived risk, attitude, and omnichannel shopping intentions, was developed and tested. More specifically, the direct and indirect effect of customer experience and personal innovativeness on the omnichannel shopping intentions of fast fashion consumers in Thailand, was examined.

The study's results confirm a significant relationship between personal innovativeness and omnichannel shopping intentions. However, no significant relationship could be found for customer experience and omnichannel shopping intentions. Instead, this relationship was intervened by the construct of perceived innovation characteristics. Out of the five variables observed in the study, attitude was the most significant, followed by perceived innovation characteristics. Customer experience had a more significant impact on customers' perceptions of the innovation characteristics of using omnichannel retail services or omnichannel shopping when compared to their personal innovativeness. It was further found that perceived risk had no significant relationship with attitude and omnichannel shopping intentions. Additionally, this variable was also not impacted by customer experience. Based on these previously stated findings, there may be room for other researchers to explore the relationship between these variables and other variables that were not observed in this study, as well as to investigate any unexamined relationships between variables within this study. For instance, future research could investigate the relationship between perceived innovation characteristics and attitude, perceived risk and trust, or customer experience and satisfaction, and the impact of these variables on consumers' omnichannel shopping intentions.

A second contribution of this study lies with the identification of omnichannel customer experience based on the Thai cultural and retail context. As previously mentioned, mixed methods research and the EFA was used to unveil a new set of sub-variables for customer experience and perceived innovation characteristics. Although the findings confirmed that usefulness, compatibility, and ease of use were indeed subcomponents of perceived innovation characteristics, the study identified consistency, connectivity, personalisation, accessibility, order fulfilment, flexibility, and retailers' responsiveness, as dimensions of the omnichannel customer experience. Together, these seven dimensions sum up what makes the ideal omnichannel customer experience for fast fashion consumers in Thailand, contributing to extant literature by improving understanding of customer experience within the context of omnichannel retailing and shopping in Thailand. Moreover, the inclusion of accessibility, order fulfilment, and retailers' responsiveness, in addition to the dimensions previously discussed by Shi et al. (2020) signifies that fast fashion brands and retailers should ensure that their customers have access to omnichannel retail services at all stages of the buying process, and most importantly the after sales services. Findings also suggest that there is a strong demand for consistent service, product quality, product information, and channel management, as eleven out of twelve items had factor loadings over 0.5 and nine out of nine for the sub-variable of personalization. Therefore, retailers should try to provide their customers with a consistent but personalized experience.

Additionally, like most previous studies, this study did not go without a few limitations. It was realised that one limitation of the study lies with its selected industry, target population, and variables. For example, since its objective was to study about the omnichannel shopping intentions of fast fashion consumers in Thailand, the results of this study may not apply to other industries aside from the retail industry and/or be applicable to studies about other retail formats/retailing strategies or the omnichannel retailing of other goods, services, or even other fashion items. Moreover, the findings of this study may only represent the behavior of fast fashion consumers who have experience with omnichannel shopping in Thailand and not those in other countries or those from different cultures or social settings. Hence, the dimensions of the omnichannel customer experience identified in this study may be restricted and only applicable to the Thai cultural context.

Another limitation of this study surrounds its independent variables. Based on a review of the extant literature, customer experience, personal innovativeness, perceived innovation characteristics, perceived risk, and attitude, were identified as factors with a potential impact on fast fashion consumers' omnichannel shopping intentions. However, past studies also indicate that several other

factors could also have an impact. Therefore, it may be beneficial for future researchers to investigate other variables in addition to the ones set forth in this study. Interestingly, it is also recommended that future research looks beyond shopping intentions as a behavioral outcome or response, and extends the scope to other outcomes, such as loyalty intentions. For instance, Roy et al. (2016), while observing the impact of smart retail customer experience on customers' evaluation of smart retail technologies, identified various other outcomes, such as shopping effectiveness, improving quality of life, and stickiness to retailers, in addition to behavioral and word-of-mouth intentions. Additionally, as the study's collection of data was conducted during the outbreak of COVID-19, its findings might not be a true representation of the target population's behavior under normal circumstances. Hence, the study focus could be revisited once everything has been set back on track.

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