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Role of consistency in omnichannel integration:
Effects on the continuous versus serendipitous customer experience

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Abstract

Channel integration to provide a seamless customer journey experience plays a central role in omnichannel marketing. However, not all dimensions of channel integration enhance customer experience. We decompose the dimensions of customer-perceived consistency in channel integration and investigates the impact on two customer experience types: continuous and predictable customer experience and serendipitous and unpredictable customer experience. The analysis reveals that content consistency, process consistency, and promotion consistency significantly affect both continuous and serendipitous customer experience, but price consistency and assortment consistency do not considerably impact serendipitous customer experience. These insights offer valuable direction in shaping omnichannel integration strategies.

1. Introduction

Integrating different channels to provide a “seamless” customer journey experience is the fundamental concept of omnichannel retailing, attracting significant attention over the past decade (Brynjolfsson et al., 2013; Huré et al., 2017; Neslin, 2022; Rigby, 2011; Verhoef et al., 2015). Channel integration is crucial for achieving an omnichannel strategy, and its effectiveness has been demonstrated from both the firm-centric (e.g., Cao and Li, 2015; Tagashira and Minami, 2019) and customer-centric perspectives (e.g., Herhausen et al., 2015; Huré et al., 2017; Shen et al., 2018). From a customer-centric perspective, researchers have been highly interested in customers’ perceived consistency in channel integration, which has led to several studies.

The general conclusion from prior research indicates that the perceived consistency of chan-

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nel integration positively influences customer outcomes. In essence, most omnichannel literature suggests that integrating channels and aiming for a seamless and consistent customer experience will lead to improved outcomes, including usage intention（Zhang et al., 2018）, actual usage（Shen et al., 2018）, and loyalty（Li et al., 2018; Quach et al., 2022）.

However, there is room to question whether making every element consistent across channels is necessary. Consistency creates predictable customer experiences and enhances cognitive control, improving customer convenience and minimizing purchase risks（Siebert et al., 2020; Surprenant and Solomon, 1987）. Nevertheless, this predictability alone is not guaranteed to always benefit the customer experience. Recent studies comprehensively capturing customer journey experience, not just in the omnichannel literature, have shown that customers sometimes find value in discontinuous and serendipitous unpredictable experiences（Kim et al., 2021; Siebert et al., 2020）. Therefore, researchers should acknowledge the significance of these serendipitous experiences beyond the continuous customer experience for which omnichannel retailing has traditionally been valued and reconsider the elements of channel integration necessary to attain this objective.

In this context, this study assumes two gaps in existing research. First, there is a lack of understanding regarding the relationship between customer-perceived consistency in omnichannel integration and continuous versus serendipitous customer experiences. Previous research assumed that perceived consistency augments continuous and predictable customer experiences（Cocco and Demoulin, 2022; Huré et al., 2017）. However, the impact of omnichannel integration on serendipitous and unpredictable customer experiences has rarely been studied.

Second, researchers need to distinguish between dimensions of consistency. The consistency in omnichannel integration has several dimensions. Specifically, it includes *content consistency* concerning customer-accessible information, *process consistency* related to service image and performance, and *marketing mix consistency* encompassing the integration of price, assortment, and promotion（Shen et al., 2018; Sousa and Voss, 2006; Zang et al., 2018）. Customers do not always want a perfect alignment of retail elements across touchpoints. They may accept and sometimes expect “differences” between channels（Nakano, 2023; Neslin, 2022）. Therefore, it is needed to determine the elements of consistency that affect the customer experience and ultimately lead to retail outcomes. However, research from this perspective is lacking.

We aim to investigate the impact of consistency in omnichannel integration on customer experience by comparing continuous and serendipitous aspects. To achieve this, we first decompose the dimensions of customers’ perceived consistency and explore their impacts. Next, we investigate how each of these consistency dimensions influences customer satisfaction with the retailer as an outcome through the customer experience. Omnichannel-retailers can apply our findings to their marketing strategies by manipulating integrated elements across channels. Ultimately, we provide a novel per-

spective on boosting customer experience in omnichannel retailing.

2. Literature review

2-1. *Customer perception of consistency in omnichannel integration*

Channel integration enables customers to perceive consistency. In an early study, Sousa and Voss (2006) propose that customers' perceived consistency comprises two pivotal dimensions: content consistency and process consistency. This concept draws upon traditional service quality concepts, specifically, the distinction between technical (content) quality and functional (process) quality (Grönroos, 2000). Content consistency means the consistency between the information exchanged across different channels (Sousa and Voss, 2006). By contrast, process consistency denotes the consistency between process attributes across channels, including the service's image, feeling, and waiting times (Sousa and Voss, 2006). Research on customer perceptions of omnichannel integration demonstrates that content consistency positively affects the intention to utilize omnichannel services (Gao et al., 2021; Lee et al., 2019; Shi et al., 2020) and actual usage (Shen et al., 2018). Likewise, process consistency positively influences the intent to use (Lee et al., 2019; Shi et al., 2020) and actual usage (Shen et al., 2018).

The marketing mix is another crucial dimension contributing to customers' perceived consistency. Marketing mix consistency ensures uniformity in prices, product assortments, and promotions across channels. This consistency plays a central role in molding omnichannel intensity (Shen et al., 2018) and is an essential consideration for retailers shaping their marketing strategies. However, the treatment of this construct varies in existing studies. For example, some studies treated the elements of price, assortment, and promotion as single constructs by merging them. Shi et al. (2020) combine product and promotion into single dimension. Zhang et al. (2018) and Gao et al. (2021) consider products and prices as single dimension. Yet, treating these as integrated dimensions may not be optimal. For instance, Neslin (2022) highlights that assortment and price need not be consistent because different customers with varying needs access each channel. Moreover, rather than integrating both price and promotion across channels, one or both could be varied to derive an optimal channel strategy. Given these considerations, this study positions the three dimensions of price, assortment, and promotion in a discriminatory manner, defining them as marketing mix consistency.

Table 1 summarizes the studies that address customers' perceived consistency in omnichannel integration. These studies are divided into those that do not distinguish between consistency dimensions (e.g., Rahman et al., 2022; Shi et al., 2020) and those that do (e.g., Gao et al., 2021; Lee et al., 2019; Zhang et al., 2018). Even within the latter group of studies, either two of the three dimensions of price, assortment, and promotion were combined into one in most cases. This study is positioned

Table 1: Types of studies addressing customers' perceived consistency in omnichannel integration.

	Distinguishing dimensions of consistency			Content consistency	Process consistency	Marketing mix consistency	Distinguishing dimensions of marketing mix			
	Yes	No (elements)					Yes (elements)		No (elements)	
Shen et al. (2018)	✓			✓	✓					
Zhang et al. (2018)	✓			✓	✓	✓	✓	Product and price (single dimension), promotion		
Hossain et al. (2019)	✓			✓	✓					
Lee et al. (2019)	✓			✓	✓					
Hossain et al. (2020)	✓			✓	✓					
Shi et al. (2020)		✓	Service feeling, response, performance			✓			✓	Product, promotion
Gao et al. (2021)	✓			✓		✓	✓	Product and price (single dimension), promotion		
Cocco and Demoulin (2022)		✓	Porduct, price							
Quach et al. (2022)		✓	Image, feeling, service, performance							
Rahman et al. (2022)		✓	Product, price, promotion							
This study	✓			✓	✓	✓	✓	Product, price, promotion		

as one that distinguishes between dimensions. It thoroughly examines content consistency, process consistency, and marketing mix consistency.

2-2. *Findings that are different from the "common sense" of integration*

Channel integration creates a seamless and consistent customer journey experience, which has become a fundamental strategy in omnichannel implementation. However, several recent studies have reported some variations.

Gasparin et al. (2022) conducted semi-structured interviews and found that customer journeys with low consistency but high connectivity between channels favorably impact customers. According to their definition, consistent and seamless journeys are characterized by a high consistency in marketing mix elements and channel connectivity. Customers transition smoothly between channels, encountering uniform prices, assortments, promotions, and other information. Conversely, an inconsistent but seamless journey refers to situations in which marketing mix elements vary across channels, but connectivity remains high, thus enabling customers to move freely. High connectivity reduces customer effort, making it easier for customers to accept contradictions owing to variations across

channels. In such scenarios, consistency in marketing mix elements might not always be required. A positive surprise could involve finding a product in a store even though it is sold out online or stumbling upon a lower price while exploring the product through different channels. Thus, customers may well receive differences across channels in an advanced omnichannel environment.

Consistency may not necessarily amplify customer experience, especially affective customer experience. Gao et al. (2021) investigate how customer perceptions of channel integration impact both cognitive and affective experiences. The findings reveal that consistency across channels concerning promotion, product and price (considered as a singular dimension), and transaction information enhances the cognitive customer experience while leaving the affective customer experience unaffected. In other words, some dimensions of consistency in channel integration can enhance shopping efficiency but may not significantly contribute to positive emotional recall during shopping.

Additionally, Neslin (2022) highlights the potential consistency issue, leading to cannibalization. Harmonizing elements between channels can result in homogenization across channels, which, in turn, can cause cannibalization (Van Baal, 2014). Customers choose different channels based on their individual preferences (Nakano and Kondo, 2018). If the elements across channels become too homogeneous, it may eliminate the possibility of originally catering to a wide range of customer needs through the diversity across channels.

Therefore, it is imperative to comprehensively examine the role of consistency in omnichannel integration. Specifically, we need to improve our understanding of how consistency across channels affects customer experience.

2-3. *Continuous versus serendipitous customer experience*

From the perspective of predictability for customers in their channel-switching process, researchers can categorize customer experiences into two primary types: continuous and predictable customer experiences versus serendipitous and unpredictable customer experiences.

Existing literature on channel integration has demonstrated that maintaining consistency across channels contributes to a continuous and seamless customer journey experience. Cocco and Demoulin (2022) assert that channel integration increases the perception of continuity between channels, creating feelings of a seamless shopping journey and ultimately strengthening loyalty to the retailer. Consistency in channel integration reduces the perceived risk (Quach et al., 2022; Shi et al., 2020) and enhances compatibility (Shi et al., 2020). In other words, it reduces customers' cognitive effort and enhances cognitive control (Surprenant and Solomon, 1987). Consequently, it provides a predictable and smooth customer journey, offering customers convenience, ease, and satisfaction. This, in turn, enables customers to predict their behavior and the level of service the retailer provides. Particularly, as customer purchasing shifts online after the COVID-19 pandemic, the smooth

channel shift brought about by consistency will create greater experience value than ever before （Nakano, 2022）. In sum, these findings underscore the importance of continuous customer experience.

However, recent marketing literature has emphasized the significance of unpredictable customer experiences. Although predictable shopping experiences offer advantages, they may risk losing customer interest in highly competitive markets （Siebert et al., 2020）. Customers occasionally feel constrained by scheduled developments and seek unpredictable experiences. In such contexts, cultivating excitement through incongruent unpredictability may be beneficial （Siebert et al., 2020）.

Unexpected chance encounters can evoke feelings of serendipity. Feelings of serendipity refers to feelings arising from chance encounters with products, services or experiences that were not directly chosen by the customer （Kim et al., 2021）. Accidental positive experiences that add value to consumers contribute to increased customer satisfaction （Kim et al., 2021）. In an omnichannel environment, channel switching is expected to enhance retail outcomes by improving serendipitous and unpredictable customer experiences.

Thus, there are continuous customer experience and unpredictable customer experience, but little research has been conducted on how the consistency dimension leads to the experience, especially the latter. Therefore, we present our hypotheses in the next section.

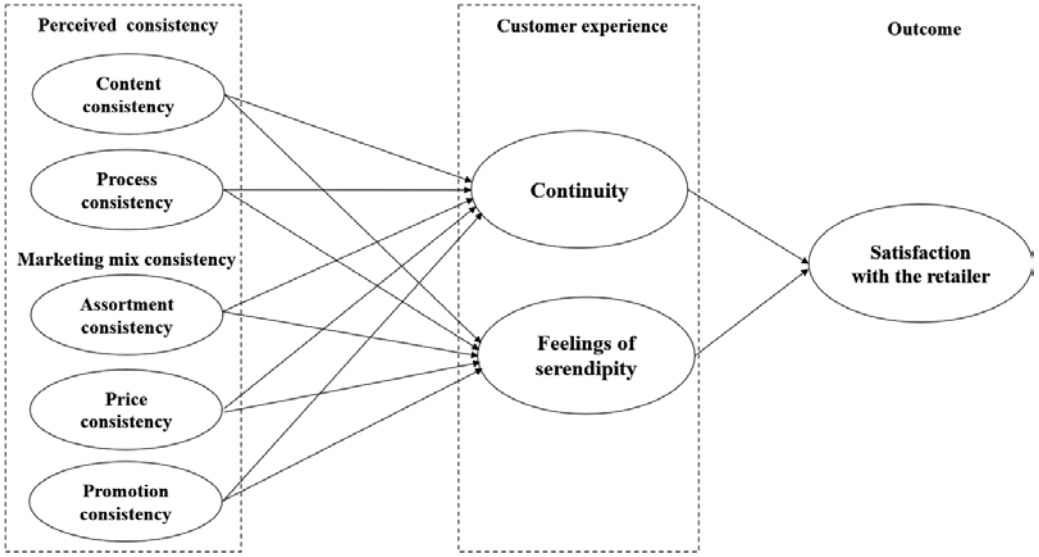
3. Hypotheses

Figure 1 shows the research model used in this study. We define the research model following Gao et al. (2021), Li et al. (2018), and Quach et al. (2022), who posit the mechanism by which customers' perceptions of channel integration affect outcomes through customer experience. The theoretical background of this setting is the Stimulus-Organism-Response framework. We consider channel integration as a stimulus and satisfaction with the retailer as an outcome （response）. According to Rahman et al. (2022), the outcomes involved in omnichannel evaluation encompass satisfaction, loyalty, word of mouth, share of wallets, and trust. Of these, satisfaction is the most basic component of the relationship between the customer and the retailer; therefore, this study focuses on it. In the subsequent sections, we outline our hypotheses regarding the relationships between these constructs.

3-1. *Effects of customer experience*

We organized our hypotheses regarding the two customer experiences described earlier: continuous customer experience and serendipitous customer experience. As a construct that evaluates continuous customer experiences, this study focuses on continuity, defined as "the customer journey progression across channels" （Cocco and Demoulin, 2022, p. 463）. In an omnichannel retailing envi-

Figure 1: Research model.



ronment, customers may change channels from the information search process to the purchase process. When channel switching is smooth, customers obtain a seamless customer journey experience (Verhoef et al., 2015). Consequently, continuity is expected to boost the predictability and controllability of customer choices, resulting in greater satisfaction with the retailer (Cocco and Demoulin, 2022). Accordingly, we posit the following hypothesis:

H1. Continuity positively affects satisfaction with the retailer.

To assess serendipitous customer experience, we assume feelings of serendipity (Kim et al., 2021). As mentioned previously, with an increase in feelings of serendipity, customers are expected to be more satisfied with their choices. Furthermore, this effect is expected to influence retailers through customers' use of omnichannel services. Therefore, we hypothesize:

H2. Feelings of serendipity positively affect satisfaction with the retailer.

3-2. *Effects of content consistency*

Content consistency pertains to maintaining coherent information across multiple channels (Sousa and Voss, 2006). This means that customers receive consistent information and the same response regardless of their channel. Achieving this requires integrated information access (Gao et al., 2021). One such example is the function to check product availability in a physical store through online. Another example is accessing an online store while in the store, using in-store kiosks or mobile

apps. Customers can engage in stress-free showrooming and webrooming by enabling these possibilities, transitioning smoothly between channels. Prior research has shown that content consistency enhances efficiency and improves the cognitive customer experience（Gao et al., 2021）and perceived fluency（Shen et al., 2018）. Additionally, when information is consistent, retailers can implement strategic marketing actions, such as providing online recommendations based on customer information gathered in physical stores. This can encourage positive and contingent customer encounters. In other words, increased content consistency is expected to contribute to heightened feelings of serendipity. Therefore, we hypothesize:

H3. Content consistency positively affects（a）continuity and（b）feelings of serendipity.

3-3. *Effects of process consistency*

Process consistency involves maintaining consistency in the image and feeling of the retailer's service and ensuring consistency in service performance（Hossain et al., 2019, 2020）. Consistent image and feeling entail the retailer's logo, brand name, color, slogan, and environmental cues（Oh and Teo, 2010）. Service performance consistency encompasses the quality and convenience of systems related to information search, ordering, payment, delivery, and product return, all aligning across channels. When processes are executed consistently, customers perceive continuity and smoothness in service because their feelings about the retailer's service remain constant after channel migration（Banerjee, 2014）. Thus, prior research has demonstrated that, similar to content consistency, process consistency boosts fluency（Shen et al., 2018）and instills a sense of cognitive control. Furthermore, consistent feelings about the service are expected to motivate customers to actively engage with the retailer, augmenting the likelihood of serendipitous discoveries. Based on these considerations, we hypothesize:

H4. Process consistency positively affects（a）continuity and（b）feelings of serendipity.

3-4. *Effects of marketing mix consistency*

If customers could purchase any product at a consistent price across all retailer channels, they would not have to expend extra effort. In this situation, customers can make more efficient and convenient shopping decisions. Thus, integrated products and prices increase customer perceptions of channel integration and enhance empowerment（Zhang et al., 2018）.

However, researchers should note that the literature on the effect of marketing mix consistency is mixed. As mentioned earlier, Gao et al.（2021）suggest that the customer-perceived consistency of product and price affects cognitive experience but not affective experience. Similarly, their study

found that perceived consistency of promotion also affects cognitive experience but does not influence affective experience.

Some studies indicate that a consistent marketing mix strategy is ineffective in achieving customer outcomes. Lee (2020) posit that offering the same prices online and offline is not essential because price consistency has little impact on customer satisfaction. Moreover, concerning product assortment, online stores typically provide a broader and deeper product range compared to physical stores because of the convenience of providing diverse options online (Neslin, 2022). Sometimes, retailers may opt for an asymmetric channel integration strategy in which all products from the physical store are sold online, but not vice versa. Emrich et al. (2015) suggest that full integration is warranted than asymmetric integration; however, this is more pronounced for customer choice decisions in the substitutive relations (e.g., different desktop PCs) and, conversely, in the independent relations (e.g., a desktop PC and a pillow), full integration is not more effective than asymmetric integration. Hence, full integration is justified for limited-line retailers, while for general merchandisers, asymmetric integration also benefits customers.

Despite these variations, we investigate the impact of the perceived consistency of the marketing mix elements, such as assortment, price, and promotion, on customer experience. Following omnichannel fundamentals, which assume that integration is effective, we assume that all three constructs positively impact the continuity and feelings of serendipity.

H5. Assortment consistency positively affects (a) continuity and (b) feelings of serendipity.
H6. Price consistency positively affects (a) continuity and (b) feelings of serendipity.
H7. Promotion consistency positively affects (a) continuity and (b) feelings of serendipity.

4. Method

4-1. *Data*

An online survey was conducted in Japan. Understanding customer perceptions is necessary to comprehend channel integration from a customer's perspective. Customer perceptions can be effectively measured through surveys (Neslin, 2022). This research method has been employed in many studies dealing with channel integration from the customer's perspective (e.g., Gao et al., 2021; Hossain et al., 2020; Zhang et al., 2018), and we have likewise adopted this approach.

We surveyed the omnichannel customers of consumer electronics appliance retailers. Specifically, data were gathered from customers with experience using e-commerce and physical stores from any of the six major Japanese retailers. These retailers rank among Japan's top six consumer electronic appliance retailers based on annual sales in the fiscal year 2022, representing the majority

of the market. Concerning respondents, surveying omnichannel customers is a common research design in this research field, consistent with previous studies (e.g., Cocco and Demoulin, 2022; Gao et al., 2021; Rahman et al., 2022), so we adopt this. Regarding the product category to be analyzed, electronic appliances have frequently been examined in multichannel and omnichannel research (e.g., Emrich et al., 2015; Gao et al., 2021) because of the high likelihood of information search before purchase and cross-channel purchasing behavior during the purchase process. Additionally, rapid technological changes and infrequent purchases of electronic appliances may lead to free riding by customers during purchase, making channel integration strategies more critical for retailers (Van Baal and Dach, 2005). Furthermore, consumer electronic appliance retailers are well suited for analysis, as they represent one of Japan's most advanced omnichannel industries. Therefore, we targeted this product category in this study.

The survey respondents were customers who had used the relevant retailer within the past three months. This approach aims to reduce recall bias when recalling an omnichannel experience. Consistent with Cocco and Demoulin (2022) and Rahman et al. (2022), we employed a relatively short period of three months.

Additionally, this study limited the survey population to the Tokyo metropolitan area, specifically the Kanto region. This was meant to control for the effects of online delivery, which is in varying stages of development within the country. Indeed, it is known that distance to stores is related to multichannel purchase choices (Chintagunta et al., 2012). Hence, we focused on customers living in metropolitan areas with well-developed omnichannel retailing environments.

The final sample comprised 450 participants. Of them, 203 (45.1%) were male and 247 (54.9%) were female participants. Their ages ranged from 20–64 years, with a mean of 40.3 and a standard deviation of 9.5.

4–2. *Measures*

In the survey, respondents first answered questions about the retailer they had most frequently used within the previous three months. The following measurement items were then asked about that retailer. Measurement items for content consistency were adopted from Gao et al. (2021); process consistency from Shen et al. (2018); assortment consistency from Rahman et al. (2022); price consistency from Frasquet and Miquel (2017) and Gao et al. (2021); and promotion consistency from Frasquet and Miquel (2017) and Gao et al. (2021). Regarding assortment consistency, we made minor modifications to the items employed by Rahman et al. (2022) (AST1 and AST2), adding an item indicating online availability (AST3). For price consistency, we use items from Frasquet and Miquel (2017) (PRC1 and PRC2) and Gao et al. (2021) (PRC3). For promotion consistency, we utilized items from Frasquet and Miquel (2017) (PRM1) and Gao et al. (2021) (PRM2–4). Measurement items for continuity were ad-

Table 2: Measurement items.

Constructs	Items	
Content consistency	CTT1	I am able to search for products in the physical store through the online.
	CTT2	I am able to check the inventory at the physical store through the online.
	CTT3	I am able to access the information on the online store through the kiosks in the store or mobile Apps.
Process consistency	PRS1	I am able to find the consistent service feelings across different channels.
	PRS2	I am able to find the consistent service images across different channels.
	PRS3	I am able to find the consistent service performance across channels.
Assortment consistency	AST1	The retailer's product availability at physical stores is consistent with online stores.
	AST2	The retailer always has the consistent products across all channels.
	AST3	All products in the physical stores of this retailer can be purchased through their online channels.
Price consistency	PRC1	The retailer provides the consistent prices online as in the physical stores.
	PRC2	On the retailer's website and Apps, I am able to access price information in a physical store.
	PRC3	It is possible for me to find consistent price in the physical store and online store.
Promotion consistency	PRM1	The retailer provides the consistent promotions online as in the physical stores.
	PRM2	I am able to find promotions running in the physical store on the online.
	PRM3 (*)	I am able to find the address of the physical store on the online.
	PRM4	I am able to find advertisements of the online on the receipts in the physical store.
Continuity	CNY1	I am able to continue the shopping journey on any channel.
	CNY2	I am able to utilize channels interchangeably during search process and purchase process.
	CNY3	I am able to move freely from channel to channel.
	CNY4	My shopping is continuous across different channels.
Feelings of serendipity	FOS1	I feel the shopping from the retailer was a good surprising
	FOS2	I feel lucky to find the products in the retailer.
	FOS3	I feel the shopping with this retailer was an unexpected discovery.
	FOS4	I feel that there was chance in encounteing the products in the retailer.
Satisfaction	SAT1	The retailer is an ideal retailer.
	SAT2	Overall, I am satisfied with the retailer.
	SAT3	The retailer always meets my requirements.

Note: We deleted PRM3 due to the low loading, following the analysis process of Hair et al. (2022).

opted from Cocco and Demoulin (2022) and feelings of serendipity from Kim et al. (2021). Satisfaction with the retailer was adopted from Rahman et al. (2022). We used 7-point Likert scales for all items. As shown in Table 2, all constructs were measured using multiple items to ensure construct validity and reliability.

4-3. *Data analysis*

We used partial least squares structural equation modeling (PLS-SEM). Compared to CB-SEM (covariance-based SEM), PLS-SEM is well-suited for small sample sizes and is effective even when the data are non-normally distributed (Hair et al., 2022). It also has an exploratory nature, making it suitable for predicting the dependent variable from many explanatory variables. As these characteristics matched well with the data in this study, we employed PLS-SEM. Moreover, PLS-SEM is widely used in empirical research on channel integration on customer-centric perspective, further reinforcing our choice (e.g., Rahman et al., 2022; Shen et al., 2018; Shi et al., 2020). For this analysis, we follow the two-stage approach that Hair et al. (2022) recommended. Using this approach, we evaluate the measurement and structural models.

5. Results

5-1. *Common method bias*

Because the data for all items in this study were collected through respondents' self-reports on the same survey occasion, we needed to ensure that there is no common method bias. We used exploratory factor analysis with varimax rotation for all items and conducted Harman's one-factor test. We extracted factors with eigenvalues greater than 1. In our analysis, the first factor accounts for 10.2% of the variance, signifying the absence of a single dominant factor. Thus, the common method bias is not a problem in our research.

5-2. *Assessment of the measurement model*

The initial step involves examining the magnitude of the factor loadings to check indicator reliability. Factor loadings exceeding 0.708 explain at least 50% of an item's variance, implying that the variance shared between the construct and its item surpasses measurement error (Hair et al., 2022). As a common rule of thumb, a loading above 0.7 is acceptable; however, in social science studies, a loading between 0.4 and 0.7 is considered, and if removing the item would increase internal consistency reliability or convergent validity, then removal is warranted; otherwise, the item should be retained (Bagozzi et al., 1991; Hair et al., 2022). Items with loadings below 0.4 should always be eliminated. As Table 3 illustrates, most of our factor loadings exceed 0.7. Two items (PRC1 and FOS4) exhibited loadings ranging between 0.68 and 0.70, but removing them did not increase reliability or convergent validity, so we retained these items. Note that one item pertaining to promotion consistency (PRM3) was deleted because of a loading below 0.4, and the remaining three items of promotion consistency were deemed acceptable.

Table 3: Reliability and convergent validity.

Constructs	Items	Factor loading	Mean	CR	Cronbach's alpha	AVE
Content consistency	CTT1	0.829	5.471	0.837	0.712	0.631
	CTT2	0.778	5.164			
	CTT3	0.776	5.213			
Process consistency	PRS1	0.910	4.771	0.940	0.904	0.839
	PRS2	0.943	4.896			
	PRS3	0.894	4.664			
Assortment consistency	AST1	0.802	4.244	0.821	0.680	0.606
	AST2	0.802	4.142			
	AST3	0.728	4.700			
Price consistency	PRC1	0.693	4.316	0.830	0.705	0.622
	PRC2	0.791	5.071			
	PRC3	0.871	4.944			
Promotion consistency	PRM1	0.747	5.264	0.801	0.628	0.573
	PRM2	0.768	4.424			
	PRM4	0.755	4.782			
Continuity	CNY1	0.833	5.340	0.866	0.803	0.618
	CNY2	0.815	5.420			
	CNY3	0.767	5.373			
	CNY4	0.725	4.758			
Feelings of serendipity	FOS1	0.877	5.042	0.899	0.852	0.692
	FOS2	0.884	5.164			
	FOS3	0.864	4.982			
	FOS4	0.684	4.969			
Satisfaction	SAT1	0.834	5.398	0.908	0.848	0.767
	SAT2	0.915	5.776			
	SAT3	0.876	5.318			

Table 3 depicts that the composite reliability (CR) for construct exceeded 0.7, implying good reliability (Hair et al., 2022). Cronbach alpha is rather conservative than CR; The values above 0.7 mean "satisfactory to good," and the values between 0.6 and 0.7 mean "acceptable", especially in exploratory studies (Hair et al., 2022). The Cronbach alpha values for all constructs, except assortment consistency and promotion consistency, exceeded 0.7. While the values of assortment consistency and promotion consistency are between 0.6 and 0.7, we accepted these because our study is exploratory in nature. Subsequently, we assessed the convergent validity of each construct using the extracted average variance (AVE). The AVE value for each construct is greater than 0.5, thus convergent validity is adequate (Fornell and Larcker, 1981). Finally, we evaluated discriminant validity using the Fornell-Larcker criterion; that is, the square root of AVE for each construct is greater than the correlation with other constructs (Fornell and Larcker, 1981). As Table 4 displays, we demonstrate good discriminant validity because all constructs fulfilled this criterion. In addition, we checked the HTMT criterion as shown in Table 5. Since all values are below the conservative threshold value of 0.85

Table 4: Fornell-Larcker criterion.

	CTT	PRS	AST	PRC	PRM	CNY	FOS	SAT
CTT	**0.795**							
PRS	0.306	**0.916**						
AST	0.330	0.494	**0.778**					
PRC	0.576	0.399	0.430	**0.788**				
PRM	0.363	0.311	0.350	0.383	**0.757**			
CNY	0.326	0.276	0.251	0.354	0.316	**0.786**		
FOS	0.327	0.355	0.300	0.338	0.315	0.432	**0.832**	
SAT	0.430	0.409	0.388	0.436	0.339	0.455	0.535	**0.876**

Note: Diagonal values are the square root of AVE.
The values on the lower triangle represent the correlation coefficients.

Table 5: HTMT result.

	CTT	PRS	AST	PRC	PRM	CNY	FOS	SAT
CTT								
PRS	0.389							
AST	0.474	0.616						
PRC	0.786	0.494	0.653					
PRM	0.528	0.414	0.541	0.567				
CNY	0.408	0.273	0.285	0.414	0.420			
FOS	0.391	0.386	0.359	0.390	0.417	0.480		
SAT	0.543	0.463	0.498	0.540	0.462	0.506	0.605	

（Hair et al., 2022）, discriminant validity is ensured.

5-3. *Assessment of the structural model*

As the parameters of the structural model in the PLS-SEM were derived from a series of regression equations, collinearity issues could bias the estimation results. In our study, the max variance inflation factor（VIF）value is 1.744, satisfying the threshold of 3.0（Hair et al., 2022）. This suggests the absence of multicollinearity.

We conducted bootstrapping with 10,000 bootstrap samples to test the path coefficients. Figure 2 shows the results of the structural model, and the details are listed in Table 6. The model explains 34.8%, 18.8%, and 21.2% of the variance in satisfaction with the retailer, continuity, and feelings of serendipity, respectively.

The effect of continuity on satisfaction with the retailer is positive and significant（$\beta = 0.277$, $p < .01$）, thus supporting H1. Feelings of serendipity is positively associated with satisfaction with the retailer（$\beta = 0.418$, $p < .01$）. Thus, H2 is supported. These findings indicate that, in omnichannel retailing, a seamless and continuous customer experience not only leads to customer satisfaction but also emphasizes the significance of a serendipitous customer experience.

Figure 2: Modeling results.

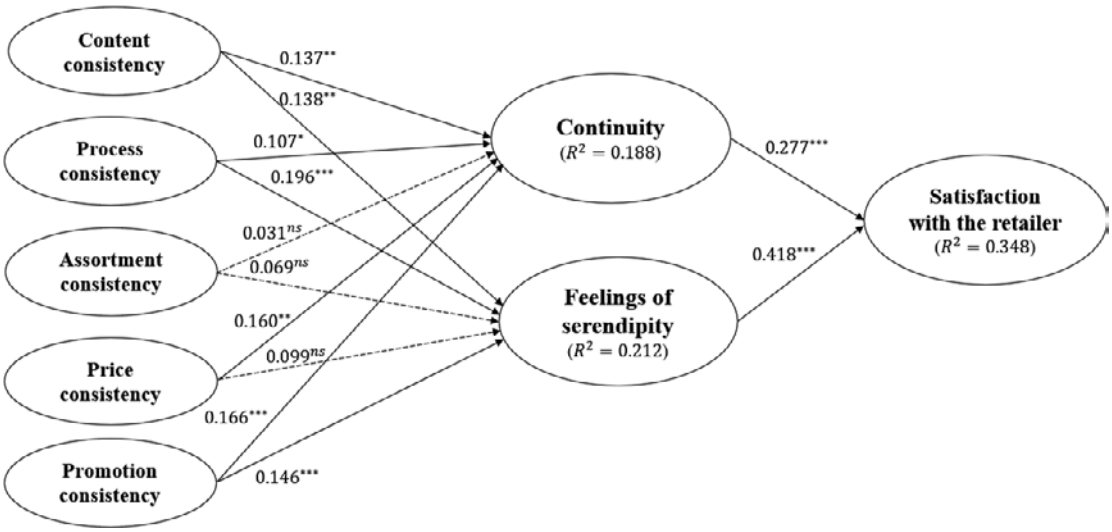


Table 6: Results of hypothesis testing.

Hypothesis				β	SD	
H1	Continuity	→	Satisfaction	0.277	0.048	***
H2	Feelings of serendipity	→	Satisfaction	0.418	0.041	***
H3a	Content consistency	→	Continuity	0.137	0.058	**
H3b	Content consistency	→	Feelings of serendipity	0.138	0.065	**
H4a	Process consistency	→	Continuity	0.107	0.055	*
H4b	Process consistency	→	Feelings of serendipity	0.196	0.057	***
H5a	Assortment consistency	→	Continuity	0.031	0.053	
H5b	Assortment consistency	→	Feelings of serendipity	0.069	0.055	
H6a	Price consistency	→	Continuity	0.160	0.062	**
H6b	Price consistency	→	Feelings of serendipity	0.099	0.068	
H7a	Promotion consistency	→	Continuity	0.166	0.056	***
H7b	Promotion consistency	→	Feelings of serendipity	0.146	0.050	***

***p<.01, **p<.05, *p<.10.

Content consistency positively and significantly influences continuity ($\beta = 0.137$, $p < .05$) and serendipity ($\beta = 0.138$, $p < .05$), thus supporting H3a and H3b. Process consistency positively affects continuity marginally ($\beta = 0.107$, $p < .10$) and serendipity ($\beta = 0.196$, $p < .01$), supporting H4a and H4b. These results suggest that the consistency of accessible information and service feeling across channels is effective for both continuous and serendipitous customer experiences. It is therefore recommended for retailers to maintain these consistencies.

However, marketing mix consistency has a different impact on customer experience. The effects of assortment consistency on continuity ($\beta = 0.031$, $p > .10$) and serendipity ($\beta = 0.069$, $p > .10$) are not significant, thus not supporting H5a and H5b. The effect of price consistency on continuity is

Table 7: Results of total effect.

			Total effect (γ)	SD	
Content consistency	→	Satisfaction	0.096	0.037	***
Process consistency	→	Satisfaction	0.112	0.033	***
Assortment consistency	→	Satisfaction	0.038	0.030	
Price consistency	→	Satisfaction	0.086	0.037	**
Promotion consistency	→	Satisfaction	0.106	0.029	***

***p<.01, **p<.05, *p<.10.

positive and significant ($\beta = 0.160$, $p < .05$) but not significant on serendipity ($\beta = 0.099$, $p > .10$). Promotion consistency positively affects continuity ($\beta = 0.166$, p<.01) and serendipity ($\beta = 0.146$, p<.01). These results indicate that the consistency of the marketing mix elements—assortment, price, and promotion—should be considered discriminatory. This study confirms that each element has a distinct impact on customer experience.

Finally, we tested the total effect as shown in Table 7. The result reveals that process consistency ($\gamma = 0.112$, p<.01), content consistency ($\gamma = 0.096$, p<.01), price consistency ($\gamma = 0.086$, p<.05), and promotion consistency ($\gamma = 0.106$, p<.01) exert significant influence on satisfaction with the retailer. Thus, increasing the consistency of these elements is beneficial for retail outcomes. However, assortment consistency is not significant ($\gamma = 0.038$, p>.10). One potential explanation is that customers perceive asymmetric assortments between online and offline as common. In such cases, the integration of the assortment may not affect retail outcomes.

6. Discussion

This study clarified the role of customer-perceived consistency in omnichannel integration. We decomposed the various dimensions of consistency and evaluated the impact of each element on continuous versus serendipitous customer experiences. We also identified the mechanism by which consistency enhances customer experience, ultimately leading to heightened customer satisfaction. The findings indicate a structural difference in consistency that affects customer experiences.

6-1. *Theoretical implications*

Numerous studies have demonstrated that channel integration increases customer-perceived consistency and fosters a seamless customer journey experience, subsequently resulting in enhanced retail outcomes (Gao et al., 2021; Hossain et al., 2020; Quach et al., 2022; Shen et al., 2018). This study extends the literature by introducing the following novel perspectives.

First, our findings establish that continuous and serendipitous experiences in an omnichannel

environment enhance customer satisfaction. Past studies have indicated that channel integration fosters seamless perceptions and strengthens customer satisfaction and loyalty (Cocco and Demoulin, 2022). However, few studies have addressed whether a serendipitous and unpredictable customer experience leads to customer satisfaction with a retailer. This study contributes to the literature by emphasizing the significance of serendipitous customer experiences in improving customer satisfaction.

Second, this study captures the impact of the dimensions of consistency in channel integration on not only continuous and predictable customer experiences, as noted in previous studies (Cocco and Demoulin, 2022), but also serendipitous and unpredictable customer experiences. Specifically, content consistency, process consistency, and promotion consistency are dimensions of consistency that affect both continuous customer experience and serendipitous customer experience. While recent customer journey experience research has focused on the value of the unpredictable experiences (Kim et al., 2021; Siebert et al., 2020), more research that combines this perspective with omnichannel research is needed. The theoretical contribution of this study is centered on aligning the customer journey experience research landscape with omnichannel marketing.

Third, this study delineates the dimensions of consistency and captures their impacts on customer experience. Among these, it makes new recommendations regarding perceptions of marketing mix consistency. Many previous studies on customer perceptions of channel integration have not discriminated against marketing mix elements. It has been shown that marketing mix consistency, which manipulates several elements like price, assortment, and promotion as a single dimension, has a positive impact on customer outcomes (Gao et al., 2021; Shi et al., 2020; Zhang et al., 2018). Yet, the results of this study indicate that customer perceptions of integration regarding price, assortment, and promotions have different effects on customer experience. Concerning price, some studies examining marketing mix harmonization have shown that price consistency has a limited effect on customer satisfaction (Lee, 2020). Nevertheless, this study demonstrated that price consistency significantly affects customer satisfaction regarding the total effect. When looking at the path mediated by customer experience, the reason is that continuity increases. Conversely, price consistency does not affect serendipitous customer experiences. Consequently, researchers should be cautious regarding the effects of price integration. Additionally, assortment consistency did not significantly affect in this study. This result is similar to that of a previous study that supports full integration is not necessarily more effective than asymmetrical integration for general retailers with a wide range of products (Emrich et al., 2015). However, this feature may depend on the characteristics of the product categories analyzed in this study. This point will be discussed in a future issue at the end of this paper. Unlike price and assortment integration, promotion integration affects both continuous and serendipitous customer experiences. Put simply, the results suggest that it is effective for retailers to be proactive with regard to promotion integration. These subdivisions have led to a new body of knowl-

edge on the effects of channel integration elements.

6-2. *Managerial implications*

This study holds significant managerial implications for retailers embarking on omnichannel strategies. The effects of channel integration are not limited to enabling customers to make smooth and cognitive purchases; they also encompass the potential for novel, serendipitous encounters during the shopping experience. Notably, when customers experience feelings of serendipity while utilizing omnichannel services, it strongly affects their satisfaction with the retailer more than a continuous customer experience. Hence, retailers must create mechanisms to make customers feel serendipitous. To achieve this objective, it is essential to ensure consistent information delivery across channels in terms of content consistency and maintaining consistent service feelings and performance via process consistency. The integration of promotion is also essential. For example, omnichannel retailers can enhance promotion consistency by offering coupons that can be used both online and in physical stores.

Retailers also need to avoid believing they are “obligated to integrate.” The conclusions drawn from this study suggest that it is not optimal to integrate every aspect of consistency. Retailers must, therefore, be careful when integrating prices and assortments. The proposition that an omnichannel strategy should integrate everything is premature. Instead, retailers should examine each dimension of consistency and formulate strategies to advance customer experience and satisfaction.

6-3. *Future issues*

This study has several limitations and challenges. The first challenge is ensuring external validity, which can be accomplished by analyzing other product categories. This study focuses on electronic appliance retailers. As seen in many multichannel and omnichannel studies（Emrich et al., 2015; Gao et al., 2021）, electrical appliances are suitable for our analysis because many customers utilize both physical stores and online in their purchasing process, from information search to purchase. However, owing to the limited physical space in brick-and-mortar stores, online stores have the advantage of accommodating a larger inventory, which makes an asymmetric assortment appropriate for this product category. Consequently, the benefits of integrating assortments are low. This background may be reflected in the results of this study. Hence, product categories with different characteristics should be validated in the future.

Finally, this study is constrained by its reliance on cross-sectional data. Future research should conduct verification within a longitudinal framework.

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