The harmonious role of channel integration and logistics service in Omnichannel retailing: The case of IKEA

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ABSTRACT

Grounded on the stimulus–organism–response framework, this study investigated the mechanism by which channel integration and logistics service influence satisfaction and repurchase intention from customers' perspectives. An online survey was conducted to collect data and partial least squares structural equation modeling was employed for model assessment. The results disclosed that perceived logistics service quality is an antecedent of perceived channel integration quality and that the two variables harmoniously influence customer satisfaction (transaction-specific and cumulative) which subsequently generates repurchase intention. Particularly, the results demonstrated that the respective contributions of perceived channel integration quality and perceived logistics service quality in enhancing transaction-specific satisfaction differ through the distinct hybrid experiences. This study had theoretical implications for the literature on omnichannel retailing and practical implications for managers of omnichannel retailers.

1. Introduction

As customers demand a tailored shopping experience and seek new, convenient means to guide their purchasing decisions, many retailers have launched omnichannel retailing strategies to remain competitive (Lee et al., 2019). However, omnichannel retailers face the complex challenge of providing a unified and uninterrupted customer experience in which transaction and order fulfillment processes are fully integrated across all channels (Hübner et al., 2016). In the BRP Consumer Study (2019), 87% of customers expressed the desire to have a personalized and consistent consumer experience across all shopping channels, but only 28% of retailers offer the ability to "start the sale anywhere [and] finish the sale anywhere." Furthermore, although 83% of customers expect flexible shipping and fulfillment options when they make a purchase (Salesforce, 2020), only 32% of retailers offer cross-channel order fulfillment, such as the option to purchase items online and pick them up in-store (Deloitte, 2020).

To meet customer demands of consistency, convenience, and flexibility, omnichannel retailing strategies should focus on logistics processes integrated across all channels (Davis-Sramek et al., 2020; Song et al., 2019). As a consequence, the quality of logistics service and channel integration plays key enablers in delivering an excellent customer experience. In the omnichannel retailing literature, the

impacts of channel integration quality on customer experience and behavioral intention have been studied (W. Gao et al., 2021; Le and Nguyen-Le, 2021; S. Mishra et al., 2022), as have the benefits of logistics service quality on the enhancement of customer satisfaction (Cotarelo et al., 2021; Murfield et al., 2017; Sorkun et al., 2020). However, there remains an absence of empirical studies examining the association between logistics service quality and channel integration quality, especially how their harmonious role affects customers' satisfaction and behavioral intention.

The quality of logistics service and channel integration is taken into account by customers in their experience during the omnichannel shopping journey (Saghiri et al., 2017). Consequently, customer perceptions of logistics service quality and channel integration quality differ in their shaping of customer experiences over time, leading to varying levels of customer satisfaction. For example, customers may have a dissatisfying experience because their orders do not arrive on time (relating to transaction-specific satisfaction) but may remain satisfied with the omnichannel retailer overall (relating to cumulative satisfaction) because of multiple prior satisfactory encounters (Jones and Suh, 2000). Although studies on multichannel context (Yang et al., 2017; Zhao et al., 2012) have argued that transaction-specific satisfaction and cumulative satisfaction exert distinct impacts on customer behavior. Investigating both types of customer satisfaction in driving

customers' behavioral intention has been untouched in omnichannel retailing studies.

Omnichannel retailing focuses not only on the platform on which the product is purchased but also on the integrated activities across channels through which a customer can move seamlessly between channels in a single transaction (Verhoef et al., 2015). Salesforce (2019) reported that 67% of customers use multiple channels to complete a single transaction. Accordingly, omnichannel retailers can actualize a frictionless shopping flow across channels by offering hybrid experiences within a single transaction. From the customers' standpoint, hybrid experiences can be acquired when customers decide to make a purchase online and then pick up the order at a physical store (buy online, pick up in-store [BOPS]) or purchasing the product in-store and then having the product directly delivered to their destination (buy in-store, ship direct [BSSD]; Bell et al., 2014). Such approaches were studied by Murfield et al. (2017) and Cotarelo et al. (2021). However, their focus solely evaluated whether the dimensions of logistics service quality differ in impacting customer satisfaction across hybrid scenarios and did not guide the role of channel integration quality.

A holistic understanding of customers' perceptions in the omnichannel setting is essential, especially to assure the success of omnichannel retailing strategies in integrating services across channels (R. Mishra et al., 2021; Murfield et al., 2017). Thus, the present study measures consumer perceptions towards the association of logistics service quality with channel integration quality and subsequently investigates their effects on satisfaction and behavioral intention in omnichannel retailing. Specifically, this study aims to address the two principal research questions as follows. First, how does the mechanism by which perceived channel integration quality and perceived logistics service quality affect customer satisfaction (transaction-specific versus cumulative) and further influence repurchase intention? Second, do the respective contributions of perceived channel integration quality and perceived logistics service quality in enhancing transaction-specific satisfaction differ through the distinct hybrid experiences?

The remainder of this paper is structured following. In Section 2, a review of the relevant literature is presented, the theoretical foundation is outlined, and the model is introduced. Section 3 presents the hypothesis development. The methodology is described in Section 4, and the results are reported in Section 5. In Section 6, the theoretical and managerial implications of the study and the limitations are discussed, and directions for future research are proposed.

2. Literature review and theoretical foundations

2.1. Omnichannel retailing

Omnichannel retailing overcomes various obstacles in the shopping experience. The shift from multichannel to omnichannel retailing reflects the complex, formidable challenge of satisfying customers' demands (Shen et al., 2018; Shi et al., 2020). Unlike multichannel retailing, in which individual channels work separately, omnichannel retailing blurs the boundaries between channels; channels function synergistically, thus providing a seamless customer experience (W. Gao et al., 2021; Trenz et al., 2020; Zhang et al., 2018). In addition, omnichannel retailing reflects the set of integrated activities across all retailer channels and customer touchpoints (Verhoef et al., 2015). It accommodates customers' need to interact with a retailer anywhere and anytime at any stage of the shopping process (Hickman et al., 2020).

During the omnichannel shopping process, customers may utilize multiple retailer's channels (Paz and Delgado, 2020). At the purchasing stage, customers can decide whether to purchase their necessities from physical stores or buy them online (Chopra, 2015). Regarding fulfillment, customers can either pick up their orders at the store or have them delivered to their homes (Bell et al., 2014). When looking at this phenomenon, omnichannel retailers may advance their strategies on BOPS and BSSD as customers' hybrid experiences. These experiences concentrate on customers' activities through the lens of purchase and fulfillment; a key concern is determining how purchase and fulfillment are accomplished.

The advantage of BOPS is that customers can easily obtain accurate information about products of interest before they place their orders. Customers can then pick up their orders at their own convenience, without having to wait for a courier at home (F. Gao and Su, 2017). On the other hand, BSSD allows customers to see, experience, and try out products in person (Alexander and Blazquez Cano, 2020). It also benefits customers to avoid the hassle of transporting their orders home. These hybrid approaches take into account how service operations along channels interact from the perspective of customers (Beck and Rygl, 2015). Given that customers look ahead to receive high-quality service and to be provided with consistent support across channels within every single transaction (Le and Nguyen-Le, 2021; Lynch and Barnes, 2020), thus, it is of interest to investigate customer perceptions from the focal points of the quality of logistics service and channel integration through the distinct hybrid approaches (BOPS versus BSSD).

2.2. Perceived channel integration quality

In the omnichannel retailing context, channel integration enables customers to simultaneously or interchangeably harness all available channels during their shopping processes so that customers can gain borderless and convenient experiences across channels (Cheah et al., 2020; Li et al., 2018). The quality of channel integration reflects the extent to which customers can obtain information about products, services, and special offers; complete their transaction processes; and receive orders across multiple channels in a consistent, unified manner (Seck and Philippe, 2013).

Multiple studies on omnichannel settings have acknowledged the pivotal role of channel integration quality in influencing switching costs (Li et al., 2018), customer empowerment (Cheah et al., 2020; Shakir Goraya et al., 2020; Zhang et al., 2018), customer engagement (M. Gao and Huang, 2021; Lee et al., 2019), satisfaction and perceived value (Hamouda, 2019), satisfaction and empowerment (S. Mishra et al., 2022; S. Mishra et al., 2021), omnichannel self-efficacy (Sun et al., 2020), cross-buying intentions (Hossain et al., 2020), perceived fluency when using omnichannel service (Shen et al., 2018), and the overall customer experience (W. Gao et al., 2021; Le and Nguyen-Le, 2021). However, the impact of channel integration quality on customer satisfaction in omnichannel retailing seems to have not been fully investigated.

Channel integration quality was initially conceptualized in multichannel settings by Sousa and Voss (2006). Hossain et al. (2019) then presented a comprehensive overview of multichannel integration quality, introducing several new dimensions and subdimensions. Nevertheless, only few dimensions have been tested in the multichannel retailing context. In a follow-up study, Hossain et al. (2020) empirically tested dimensions and subdimensions of channel integration quality on consumers' perceptions of service quality. Focusing on consumer perception in omnichannel retailing, this study employed all subdimensions presented by Hossain et al. (2020) to examine the effects of perceived channel integration quality on customer satisfaction. The definition of perceived channel integration quality dimensions can be seen in Table 1.

2.3. Perceived logistics service quality

Logistics service depicts the retailer's operational and relational activities in fulfilling customers' orders. The quality of logistics service can be reflected by the extent to which customers can obtain the retailer's promised service dependably and accurately (Bouzaabia et al., 2013; Mentzer et al., 2001). A few studies on omnichannel retailing have provided conceptual insight into the importance of logistics service and distribution management for effective order fulfillment (Hendalianpour et al., 2020; Hübner et al., 2016; Ishfaq et al., 2016). While other studies

Table 1
The definition of perceived channel integration quality dimensions.

Dimensions of perceived channel integration quality	Definition
Perceived channel breadth	the extent to which a customer knows the availability of various channels and the accessibility of an alternative channel for a given service
Perceived channel transparency	the extent to which a customer understands the various features of products or services between different channels
Perceived channel appropriateness	the extent to which a customer perceives the suitability of services provision of each channel
Perceived information consistency	the extent to which a customer perceives the coherence and consistency of information presented across service channels
Perceived transaction data integration	the extent to which a customer perceives that transaction data can be collected and integrated within all the channels
Perceived system consistency	the extent to which a customer perceives the consistency of search, order, payment, and return using all service channels
Perceived image consistency	the extent to which a customer perceives the homogeneous use of the retailer's brand name, logo, slogan, and color scheme across channels
Perceived privacy	the extent to which a customer perceives the protection of his/her personal information across channels
Perceived security	the extent to which a customer perceives the safety when using multiple channels
Perceived service recovery accessibility	the extent to which a customer perceives the presence of channels through which he/she can conveniently raise service-related concerns

Table 2
The definition of perceived logistics service quality dimensions.

Dimensions of logistics service quality	Definition
Perceived order quality	customer perception of how well the ordered items function
Perceived order accuracy	customer perception of how closely shipments match his/her orders on arrival
Perceived order condition	customer perception of the state of orders on arrival
Perceived timeliness	customer perception of the time required between placing and receiving an order and whether an order is delivered on time
Perceived availability	customer perception of the availability of products in suppliers' inventories for order fulfillment

have considered logistics service quality as a key to omnichannel strategies for achieving customer satisfaction and loyalty (Cotarelo et al., 2021; Murfield et al., 2017; Sorkun et al., 2020). However, empirical evidence explaining how perceived logistics service quality affects customer satisfaction is still far from sufficient.

Mentzer et al. (2001) initially proposed the model of logistics service quality as a segment-customized process. Bienstock et al. (2008) extended Mentzer's study by considering the dichotomy of logistics process quality and logistics outcome quality in a comprehensive model. Murfield et al. (2017) empirically tested dimensions of logistics service quality in the omnichannel retailing context. These dimensions refer to physical distribution service quality advanced by Bienstock et al. (1997). Cotarelo et al. (2021) then added product returns as another logistics service quality dimension. However, some researchers regard the return dimension as an order condition element specifically considered in scenarios of online purchase with the direct shipment. Herein, to capture a complete customers perspective, logistics service quality was examined with reference to the collaborative dimensions proposed by Mentzer et al. (2001) and Bienstock et al. (2008). Specifically, the present study centered on dimensions of logistics service outcome quality that directly affect customer satisfaction (Bienstock et al., 2008). The definition of perceived logistics service quality dimensions can be seen in Table 2.

2.4. Customer satisfaction

Studies have established that customer satisfaction can be conceptualized as transaction-specific or cumulative. These two types of customer satisfaction serve distinct purposes (Johnson et al., 2001; Jones and Suh, 2000). Transaction-specific satisfaction can be defined as customers' evaluation of a specific service encounter at a single point in time (Zhao et al., 2012). It captures customers' psychological reactions to particular events in a service transaction on a given occasion or in a given time period (Jones and Suh, 2000; Olsen and Johnson, 2003). Cumulative satisfaction is described as customers' overall assessment of

all services they have availed of over time (Zhao et al., 2012). In short, it can be regarded as a function of satisfaction regarding all previous transactions (Jones and Suh, 2000; Olsen and Johnson, 2003).

Transaction-specific satisfaction and cumulative satisfaction affect customers' behavior differently (Olsen and Johnson, 2003). Cumulative satisfaction reflects customers' general experiences and global impressions of a retailer's performance. Thus, it may serve as a more accurate predictor of customer loyalty than does transaction-specific satisfaction (Chang et al., 2009). Studies have highlighted the distinct effects of these two types of customer satisfaction on customers' behavioral intention (Jones and Suh, 2000; Bodet, 2008; Yang et al., 2017; Zhao et al., 2012). However, empirical evidence on omnichannel retailing in this regard has yet to be established. Thus, the present study explores the effects of transaction-specific versus cumulative satisfaction in this context on repurchase intention.

2.5. Stimulus–organism–response framework

Adapted from Mehrabian and Russell (1974), the stimulus–organism–response (SOR) framework delineates the association among perceived stimuli, the internal state of an organism (i.e., individual), and the subsequent behavior of that individual. In the retailing context, the SOR framework outlines a process wherein the stimuli in the retail environment induce certain internal states in customers, which in turn drive their outcome behavior (Carlson et al., 2018). Hence, stimuli can be conceptualized as environmental or external factors that affect internal, organismic states (Eroglu et al., 2001; Cheah et al., 2020). In the context of omnichannel retailing, stimuli are associated with activities integrated across all the channels of a retailer to provide a seamless shopping experience (S. Mishra et al., 2021). Herein, *stimuli* are represented by the association of perceived logistics service quality with perceived channel integration quality. *Organism* describes the internal cognitive and/or affective states that intervene between a stimulus and an individual's response to that stimulus (Jiang et al., 2010; Zhang et al., 2018). Accordingly, customer satisfaction (transaction-specific versus cumulative) reflects the organism. *Response* in this instance means the individuals' final response toward the retailer (Mehrabian and Russell, 1974; Ürgüplü and Yumurtaci Hüseyinoglu, 2021). Thus, repurchase intention is represented as a customer's response in the present study.

The SOR framework provides a theoretical basis in omnichannel settings from which showrooming intention (Arora et al., 2020), patronage intention (Zhang et al., 2018; Cheah et al., 2020; Le and Nguyen-Le, 2021), omnichannel usage intention (W. Gao et al., 2021), customer experience (Chopdar and Balakrishnan, 2020; Ürgüplü and Yumurtaci Hüseyinoglu, 2021), and customer retention (S. Mishra et al., 2021), can be explained. However, omnichannel retailing studies that adopted this framework to holistically examine how stimuli in the retail environment influence customer satisfaction and subsequently affect repurchase intention remain scarce. Table 3 summarizes prior omnichannel retailing studies that applied the SOR framework.

Herein, a holistic model (Fig. 1) derived from the SOR framework

Table 3

The SOR framework in omnichannel retailing studies.

References	Stimulus	Organism	Response
Zhang et al. (2018)	Consumer perception of channel integration	Consumer empowerment, Trust, Satisfaction	Patronage intention
Cheah et al. (2020)	Consumer perception of channel integration	Consumer empowerment, Trust	Patronage intention
Chopdar and Balakrishnan (2020)	Perceived ubiquity, contextual offering, visual attractiveness, app incentives	Impulsiveness, Perceived value	Satisfying experience, Repurchase intention
Le and Nguyen-Le (2021)	Channel-service configuration, Integrated interactions	Customer empowerment, Customer experience	Patronage intention
Arora et al. (2020)	Perceived showrooming value, Past showrooming experience	Attitude towards showrooming, Desire towards showrooming	Showrooming intentions
Ürgüplü and Yumurtacı Hüseyinoğlu (2021)	Omnichannel capability	Consumer empowerment	Customer satisfaction
W. Gao et al. (2021)	Integrated promotion, Integrated product and price, Integrated transaction information, Integrated information access, Integrated order fulfillment, Integrated customer service	Cognitive customer experience, Affective customer experience	Omnichannel usage intention
S. Mishra et al. (2022)	Cross-channel integration	Consumer empowerment, Consumer satisfaction	Customer retention
This study	Channel integration quality, Logistics service quality	Transaction-specific satisfaction, Cumulative satisfaction	Positive word-of-mouth; Repurchase intention

was developed. This model demonstrates how the mechanism by which perceived logistics service quality and perceived channel integration quality affect customer satisfaction (transaction-specific versus cumulative) and subsequently generate repurchase intention.

3. Hypothesis development

3.1. Perceived logistics service quality and perceived channel integration quality

In an omnichannel environment, customers expect to order what they want, where they want, when they want, and have it delivered how they want, in an effortless manner. To ensure that a customer moves seamlessly between channels, omnichannel retailing strategies should consider both channel activities and logistics operations integrated throughout the customer's shopping journey (Hübner et al., 2016; Murfield et al., 2017). Moreover, the delivery of the same level, synchronized services to customers is strongly dependent on the efficiency and effectiveness of logistics operations (Yumurtacı Hüseyinoğlu et al., 2018; Ishfaq et al., 2016). However, its success relies on customers' perceptions (Sorkun et al., 2020). In brief, improving perceived logistics service quality is vital because it actualizes a high level of perceived channel integration quality. Thus, the following hypothesis is presented.

H1. *Perceived logistics service quality has a significantly positive effect on perceived channel integration quality.*

3.2. Perceived channel integration quality and customer satisfaction

Channel integration quality, as an environmental stimulus, is expected to affect customers' internal states, including satisfaction (Becker and Jaakkola, 2020; Le and Nguyen-Le, 2021). Customer perception of a higher level of channel integration is correlated with a higher level of customer satisfaction (Seck and Philippe, 2013). Given that channel integration quality in omnichannel retailing may differ throughout various points of the transaction process, perceived channel integration quality will greatly determine the levels of customer satisfaction either from a single transaction or repeated transactions over time. When customers perceive their interactions across channels to be effortless within a single transaction, positive effects on transaction-specific satisfaction are produced. Furthermore, when customers have consistently favorable perceptions of their repeated transactions across channels over time, positive effects on cumulative satisfaction are generated. Therefore, the following hypotheses are presented.

H2. Perceived channel integration quality has a significant positive effect on transaction-specific satisfaction.

H3. Perceived channel integration quality has a significant positive effect on cumulative satisfaction.

3.3. Perceived logistics service quality and customer satisfaction

Logistics service quality is considered essential to the achievement of customer satisfaction (Mentzer et al., 2001; Jang et al., 2013). Studies on omnichannel retailing suggested that retailers should ensure a high level of logistics service quality such that customer satisfaction can be enhanced (Cotarelo et al., 2021; Murfield et al., 2017; Sorkun et al., 2020). Given that logistics service quality in omnichannel retailing is likely to vary from experience to experience, the effects of perceived logistics service quality will be highly correlated with the levels of customer satisfaction either from a single transaction or the repeated transactions over time. When customers encounter convenient shipping options and acquire high-quality order fulfillment within a single transaction, it will positively influence their transaction-specific satisfaction. When products are constantly available in the retailer's store, consistently delivered in a timely manner, and in satisfactory condition over repeated transactions, this will significantly lead to customers' cumulative satisfaction. Thus, the following hypotheses are presented.

H4. Perceived logistics service quality has a significant positive effect on transaction-specific satisfaction.

H5. Perceived logistics service quality has a significant positive effect on cumulative satisfaction.

3.4. Customer satisfaction and repurchase intention

Empirical studies have revealed that transaction-specific satisfaction can be distinguished from cumulative satisfaction and reported that transaction-specific satisfaction positively affects cumulative satisfaction in the multichannel context (Jones and Suh, 2000; Shankar et al., 2003; Zhao et al., 2012; Yang et al., 2017). Jones and Suh (2000) and Yang et al. (2017) noted that both types of satisfaction are positively correlated with repurchase intention. Moreover, they indicated that cumulative satisfaction was a more accurate predictor of repurchase intention than was transaction-specific satisfaction. Therefore, the following hypotheses are presented.

H6. Transaction-specific satisfaction has a significant positive effect on cumulative satisfaction.
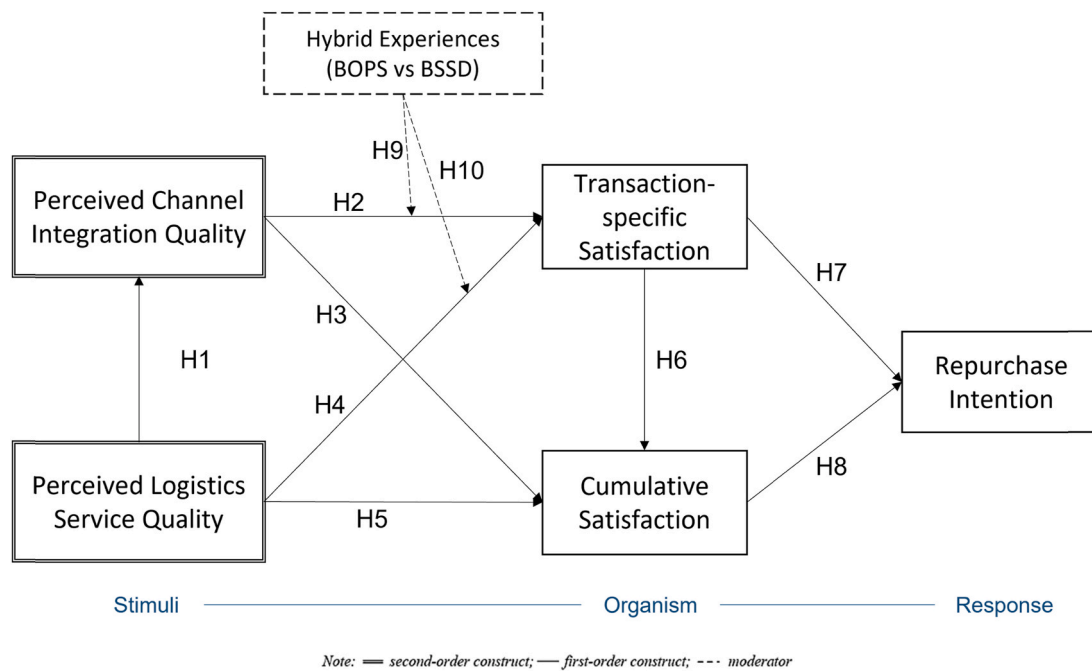
Fig. 1. Proposed research model.

H7. Transaction-specific satisfaction has a significant positive effect on repurchase intention.

H8. Cumulative satisfaction has a significant positive effect on repurchase intention.

3.5. Moderating effects of hybrid experiences

Product descriptions and prices presented to customers seeking to make an online purchase should be updated in real time. To fulfill orders, the retailer must ensure that the correct items are available at the correct stores at the correct time. Regarding order pick-up, appropriate information about the date, time, and location should be provided. Thus, within a single transaction, BOPS requires the high-quality integration of information dissemination and order fulfillment across channels (Bell et al., 2014; Cotarelo et al., 2021; Murfield et al., 2017). The quality of logistics service can be assessed as the extent to which the retailer is able to distribute products in accordance with customers' requirements (Yang et al., 2010). As for BSSD, efficient logistics operations are required for delivering high-quality products purchased for the best price in the optimal condition (Hendalianpour, 2020), to the correct address, and in the shortest time. Thus, the following hypotheses are presented.

H9. The effect of perceived channel integration quality on transaction-specific satisfaction is stronger for customers selecting the BOPS option.

H10. The effect of perceived logistics service quality on transaction-specific satisfaction is stronger for customers selecting the BSSD option.

4. Methods

4.1. Sample selection and data collection

This empirical study focuses on one retail sector—furniture—and one leading company within the sector. Omnichannel shopping is common in the furniture sector. As consumers shift from shopping in brick-and-mortar stores to shopping on online platforms, online sales in this sector are growing at twice the rate of e-commerce sales across all sectors (Coresight, 2020). Specifically, the present paper centers on IKEA, one of the leading firms in the furniture industry and the fourth-most valuable retailer in the world (Statista, 2021).

An online survey questionnaire was administered in Indonesia. Purposive sampling was employed; participants were selected on the basis of the certain criteria (Etikan et al., 2016; Ameen et al., 2021). First, the participants must have accessed the omnichannel of IKEA Indonesia at least once to search for product information. Second, the participants must have made one purchase from IKEA Indonesia within the past 6 months through one of the following hybrid methods: (a) purchased a product online and then picked it up at a nearby physical store or (b) purchased a product at a physical store and had it delivered directly to their home or another indicated location.

Five graduate students and five academic professionals completed the questionnaire as a pretest. Survey guidelines established by Fowler and Cosenza (2009) were used to assess the clarity of the instructions, the clarity of the wording, the relevance of the items, the absence of biased language, the use of standard English, and the format of the questionnaire. The questionnaire was finalized after a few changes were made. The questionnaire, administered as an online form, was available for completion between December 2020 and January 2021. In total, 345 responses were obtained. After the exclusion of responses with missing or invalid data and responses by individuals not meeting the inclusion criteria, 278 responses remained for further analysis. Details on the participants' demographic characteristics are presented in Table 4.

4.2. Questionnaire development

Part 1 of the questionnaire contained two screening questions. Part 2, the main part of the questionnaire, comprised 56 questions (the same as measurement items used in this study) covering the model constructs, with responses scored on a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Part 3 contained questions on the participants' demographic characteristics. Google Forms (Google, 2021) was employed to design the questionnaire, administer the survey, and record the participants' data.

The measurement items on perceived channel integration quality were adapted from Hossain et al. (2020). In this study, perceived channel integration quality was treated as a second-order reflective construct with 10 first-order constructs: (1) perceived channel breadth,

Table 4
Demographic statistics.

Measure	Item	Frequency	Percentage (%)
Total		278	100.0
Gender	Female	196	70.5
	Male	82	29.5
Age	Under 21 years	6	2.2
	21–30 years	180	64.7
	31–40 years	77	27.7
	41–50 years	8	2.9
	51–60 years	6	2.2
	over 60 years	1	0.4
Education	Senior High School graduate	41	14.7
	Associate's Degree/ Diploma	35	12.6
	Bachelor degree	146	52.5
	Master degree	51	18.3
	Doctoral degree	5	1.8
Monthly Income (IDR)	less than 3 million	47	16.9
	3-7 million	127	45.7
	7,1–10 million	54	19.4
	10,1–13 million	27	9.7
	13,1–17 million	11	4.0
	17,1–20 million	6	2.2
	more than 20 million	6	2.2

(2) perceived channel transparency, (3) perceived channel appropriateness, (4) perceived information consistency, (5) perceived transaction data integration, (6) perceived system consistency, (7) perceived image consistency, (8) perceived privacy, (9) perceived security, and (10) perceived service recovery accessibility. The items on perceived logistics service quality were adapted from Bienstock et al. (2008) and Mentzer et al. (2001). Herein, perceived logistics service quality was operationalized as a second-order reflective construct with five first-order constructs, namely perceived order quality, perceived order accuracy, perceived order condition, perceived timeliness, and perceived availability. The items on transaction-specific and cumulative satisfaction were adapted from Zhao et al. (2012). Finally, the items on repurchase intention were adapted from Lee et al. (2019). Table 5 displays the detailed items and their publication sources.

4.3. Statistical analysis

This study employed structural equation modeling (SEM) in analyzing causal relationships among latent constructs. Specifically, partial least squares SEM (PLS-SEM; Hair et al., 2017) was adopted for model assessment. PLS-SEM enables the examination of a complex model with numerous constructs, indicators, and relationships. Furthermore, PLS-SEM is applicable to relatively small samples. The main reason PLS-SEM was employed herein is the inclusion of second-order constructs in the proposed model.

Model assessment was conducted using SmartPLS software version 3 (Ringle et al., 2015) through a two-stage procedure developed by Chin (2010). The first and second stages involve assessing the measurement and structural models, respectively. Bootstrapping was performed to test all hypotheses by assessing the statistical significance of the parameter estimates for path coefficients in the structural model (Hair et al., 2017). Regarding moderation analysis, between-group analysis, which captures the differences among the subgroups of the moderator (Shen et al., 2019), was employed. This approach is commonly used in the information systems literature to assess moderating effects (Sia et al., 2009; Fu and Chen, 2015; Zhou et al., 2014; Shao et al., 2018; Shen et al., 2019). Herein, the sample was separated into two subgroups: BOPS (N = 120) and BSSD (N = 158). Subsequently, partial least squares multi-group analysis was conducted to compare differences among path coefficients across the two subgroups.

Table 5
Measurement items and sources.

Construct and Dimension	Measurement Items	Sources
Perceived Channel Integration Quality		
Perceived channel breadth	1. IKEA offers me multiple channels to access its services. 2. I can choose among a range of channels when dealing with IKEA. 3. I can always use some other channels when I cannot access a certain channel of IKEA.	Hossain et al. (2020)
Perceived channel transparency	1. I am aware of the service features provided by IKEA's multiple channels (website, physical store, and mobile app). 2. I know how to utilize the features of IKEA's multiple channels to meet my needs (website, physical store, and mobile app). 3. IKEA informed me well about various features of their multiple channels (website, physical store, and mobile app).	
Perceived channel appropriateness	1. IKEA does not force me to use a specific channel for a specific purpose. 2. Services provided through IKEA's different channels are appropriate for those channels.	
Perceived information consistency	1. IKEA provides consistent information about its service features across multiple channels (website, mobile app, and physical store). 2. IKEA provides consistent information about its service fees across multiple channels (website, mobile app, and physical store). 3. IKEA provides consistent information about its promotional offers across multiple channels (website, mobile app, and physical store). 4. Overall, information across IKEA's multiple channels is consistent.	
Perceived transaction data integration	1. After making a transaction, my transaction data are updated in all the channels of IKEA (website, mobile app, physical store). 2. IKEA keeps a history of transactions that I make through its different channels. 3. When I make a transaction through one channel (physical store, website, or mobile app), I can keep track of it through another channel of IKEA. 4. Regardless of the channel I use, IKEA is aware of my past transactions with them.	
Perceived system consistency	1. All the channels (website, mobile app, and physical store) of IKEA are easy to use. 2. All the channels (website, mobile app, and physical store) of IKEA has a flexible system to meet my needs. 3. The service experience is consistent across all the channels of IKEA (website, mobile app, and physical store).	
Perceived image consistency	1. IKEA's brand name, slogan, and logo are consistent across all its	

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Table 5 (*continued*)

Construct and Dimension	Measurement Items	Sources
	channels (website, mobile app, and physical store). 2. I have a consistent impression of IKEA regardless of the channel I use. 3. IKEA maintains a consistent brand image through all its channels (website, mobile app, and physical store).	
Perceived privacy	1. My personal information across various channels of IKEA (website, mobile app, and physical store) is protected. 2. My personal information across various channels of IKEA (website, mobile app, and physical store) is not shared with others. 3. My financial information across various channels of IKEA (website, mobile app, and physical store) is not shared with others.	
Perceived security	1. All the channels of IKEA have adequate security features. 2. I feel secure about using IKEA's multiple channels. 3. I feel safe in my transactions with IKEA's multiple channels. 4. I feel confident about the security of IKEA's multiple channels.	
Perceived service recovery accessibility	1. If there is any service problem, I can use multiple channels of IKEA to report service failure. (e.g., website, telephone, mobile app, in-person). 2. IKEA provides the means whereby I can voice my complaints. 3. I am aware of the channels through which I can report service issues to IKEA.	
Perceived Logistics Service Quality		
Perceived order quality	1. Products ordered from IKEA conform to specification. 2. Products ordered from IKEA meet technical requirements. 3. If a problem arises, it is solved in a satisfactory form.	Bienstock et al. (2008); Mentzer et al. (2001)
Perceived order accuracy	1. Shipments rarely contain the wrong items. 2. Shipments rarely contain incorrect quantities. 3. Shipments rarely contain substituted items.	
Perceived order condition	1. Shipments rarely arrive damaged. 2. Shipments damage rarely occurs as a result of the transport mode. 3. Shipments damage rarely occurs as a result of transport carrier handling.	
Perceived timeliness	1. The time between requesting an order and receiving it is short. 2. Orders arrive on the date/time promised. 3. The incidence of delayed orders is low.	
Perceived availability	1. Products are available in inventories located near my facility. 2. If IKEA is noticed of possible increases in upcoming orders, inventory will be increased to meet orders.	

Table 5 (*continued*)

Construct and Dimension	Measurement Items	Sources
	3. Products are consistently available in inventory when ordered.	
Transaction-specific Satisfaction	1. I feel satisfied at my recent transaction with IKEA. 2. IKEA exactly provides what I need at my recent transaction. 3. I have good experience at my recent transaction with IKEA.	Zhao et al. (2012)
Cumulative Satisfaction	1. This is one of the best retailer I could have chosen. 2. Purchasing products from IKEA has a good experience. 3. I have truly enjoyed purchasing products from IKEA.	Zhao et al. (2012)
Repurchase Intention	1. I intend to continue to purchase from IKEA. 2. I intend to choose IKEA as the preferred brand for my future purchases. 3. Except for any unanticipated reasons, I intend to continue to purchase from IKEA as usual.	Lee et al. (2019)

4.4. Common method bias

If the common latent factor contributes to more than 50% of the variance, this suggests that common method bias is a serious concern (Podsakoff et al., 2003). Thus, this study performed Harman's single-factor test to check the possibility of common method bias. The result revealed that the common latent factor accounted for less than 50% of the variance; no single component was responsible for most of the variance. It indicates that common method bias is not a serious concern in this study.

5. Results

5.1. Measurement model assessment

According to Hair et al. (2019), measurement model assessment involves four steps. Indicator reliability is tested in step 1. The standardized outer loadings should be greater than or equal to 0.708 (Hair et al., 2017). Herein, the outer loadings ranged from 0.813 to 0.957, suggesting that indicator variables shared more than 50% of the variance with their respective latent constructs. The second step entails examining the internal consistency reliability with respect to the composite reliability (CR) and Cronbach's alpha. The CR values for each construct ranged from 0.879 to 0.958, exceeding the threshold value of 0.7 (Chin, 1998). The Cronbach's alpha values for each construct ranged from 0.727 to 0.932, exceeding the threshold value of 0.7 (Nunnally, 1978). The results indicate favorable internal consistency reliability. In the third step, the average variance extracted (AVE) was used to evaluate the convergent validity of each construct. An acceptable AVE is $\geq$ 0.50 (Fornell and Larcker, 1981). The AVE values ranged from 0.717 to 0.884, indicating satisfactory convergent validity. A summary of these statistical results is provided in Table 6.

Step 4 involves the assessment of discriminant validity, which is the extent to which a construct is empirically distinct from other constructs in the structural model (Hair et al., 2019). According to the Fornell–Larcker criterion, the AVE of each construct should be compared to the squared interconstruct correlation of that same construct and all other reflectively measured constructs in the structural model. As shown in Table 7, the square root of the AVE for each construct was higher than its correlations with other constructs (Fornell and Larcker, 1981), indicating that the criterion was fulfilled for all latent constructs. Discriminant validity can also be examined using the heterotrait–monotrait

Table 6
Internal consistency reliability and convergent validity.

Construct and Dimension	Item	Factor Loadings	Cronbach's Alpha	CR	AVE
Perceived Channel Integration Quality (CIQ)					
Perceived Channel Breadth (BCC)	BCC1	0.883	0.834	0.900	0.751
	BCC2	0.867			
	BCC3	0.849			
Perceived Channel Transparency (TCC)	TCC1	0.858	0.849	0.909	0.768
	TCC2	0.900			
	TCC3	0.871			
Perceived Channel Appropriateness (APC)	APC1	0.872	0.727	0.879	0.785
	APC2	0.900			
Perceived Information Consistency (INC)	INC1	0.861	0.896	0.928	0.763
	INC2	0.861			
	INC3	0.875			
	INC4	0.896			
Perceived Transaction Data Integration (TDI)	TDI1	0.857	0.890	0.924	0.751
	TDI2	0.901			
	TDI3	0.856			
	TDI4	0.852			
Perceived System Consistency (SYC)	SYC1	0.863	0.828	0.897	0.744
	SYC2	0.879			
	SYC3	0.846			
Perceived Image Consistency (IMC)	IMC1	0.896	0.897	0.936	0.829
	IMC2	0.917			
	IMC3	0.918			
Perceived Privacy (PRI)	PRI1	0.915	0.934	0.958	0.884
	PRI2	0.957			
	PRI3	0.948			
Perceived Security (SEC)	SEC1	0.914	0.942	0.958	0.852
	SEC2	0.931			
	SEC3	0.936			
	SEC4	0.911			
Perceived Service Recovery Accessibility (SRA)	SRA1	0.861	0.868	0.919	0.792
	SRA2	0.928			
	SRA3	0.879			
Perceived Logistics Service Quality (LSQ)					
Perceived Order Quality (OQU)	OQU1	0.887	0.838	0.903	0.756
	OQU2	0.895			
	OQU3	0.825			
Perceived Order Accuracy (OAC)	OAC1	0.858	0.820	0.893	0.736
	OAC2	0.898			
	OAC3	0.815			
Perceived Order Condition (OCO)	OCO1	0.874	0.867	0.919	0.790
	OCO2	0.917			
	OCO3	0.875			
Perceived Timeliness (TIM)	TIM1	0.890	0.834	0.901	0.752
	TIM2	0.892			
	TIM3	0.817			
Perceived Availability (AVA)	AVA1	0.813	0.802	0.884	0.717
	AVA2	0.882			
	AVA3	0.844			
Transaction-specific Satisfaction (TSS)	TSS1	0.924	0.918	0.948	0.859
	TSS2	0.909			
	TSS3	0.948			
Cumulative Satisfaction (CUS)	CUS1	0.893	0.907	0.942	0.843
	CUS2	0.927			
	CUS3	0.934			
Repurchase Intention (RPI)	RPI1	0.938	0.904	0.940	0.839
	RPI2	0.935			
	RPI3	0.874			

ratio of correlations (HTMT). Proposed by Henseler et al. (2015), this criterion is the mean value of the item correlations across constructs relative to the geometric mean of the average correlations for the items measuring the same construct. As displayed in Table 8, the HTMT ratio falls below the threshold of 0.9 (Henseler et al., 2015), thus demonstrating favorable discriminant validity.

5.2. Structural model assessment

The standard criteria suggested by Hair et al. (2019), including the coefficient of determination R^2, the blindfolding-based cross-validated

Table 7
Fornell–Larcker criterion.

	BCC	TCC	APC	INC	TDI	SYC	IMC	PRI	SEC	SRA	OQU	OAC	OCO	TIM	AVA	TSS	CUS	RPI
BCC	0.867																	
TCC	0.639	0.877																
APC	0.696	0.633	0.886															
INC	0.639	0.689	0.701	0.873														
TDI	0.556	0.545	0.551	0.644	0.867													
SYC	0.619	0.643	0.645	0.687	0.631	0.863												
IMC	0.595	0.589	0.620	0.632	0.495	0.669	0.910											
PRI	0.474	0.534	0.536	0.499	0.489	0.572	0.480	0.940										
SEC	0.574	0.579	0.609	0.634	0.569	0.675	0.579	0.773	0.923									
SRA	0.546	0.612	0.546	0.556	0.574	0.613	0.603	0.641	0.674	0.890								
OQU	0.540	0.574	0.568	0.626	0.486	0.602	0.674	0.555	0.645	0.694	0.869							
OAC	0.531	0.458	0.610	0.570	0.458	0.561	0.607	0.545	0.627	0.573	0.696	0.858						
OCO	0.419	0.377	0.520	0.447	0.339	0.439	0.496	0.496	0.572	0.496	0.616	0.711	0.889					
TIM	0.490	0.459	0.581	0.498	0.553	0.591	0.499	0.520	0.602	0.551	0.550	0.566	0.573	0.867				
AVA	0.335	0.377	0.405	0.488	0.438	0.489	0.382	0.458	0.464	0.466	0.414	0.339	0.372	0.554	0.847			
TSS	0.589	0.566	0.654	0.638	0.466	0.668	0.689	0.520	0.619	0.637	0.720	0.676	0.567	0.656	0.536	0.927		
CUS	0.528	0.588	0.620	0.636	0.498	0.691	0.667	0.539	0.655	0.635	0.740	0.601	0.554	0.603	0.485	0.806	0.918	
RPI	0.471	0.548	0.578	0.583	0.443	0.606	0.629	0.537	0.630	0.613	0.685	0.571	0.552	0.569	0.445	0.739	0.810	0.916

Table 8
HTMT criterion.

	BCC	TCC	APC	INC	TDI	SYC	IMC	PRI	SEC	SRA	OQU	OAC	OCO	TIM	AVA	TSS	CUS	RPI
BCC																		
TCC	0.755																	
APC	0.897	0.797																
INC	0.737	0.789	0.865															
TDI	0.642	0.625	0.680	0.719														
SYC	0.744	0.765	0.830	0.798	0.736													
IMC	0.686	0.674	0.766	0.703	0.552	0.775												
PRI	0.536	0.596	0.649	0.545	0.536	0.650	0.522											
SEC	0.647	0.645	0.734	0.689	0.621	0.763	0.629	0.823										
SRA	0.641	0.711	0.681	0.630	0.653	0.723	0.684	0.712	0.744									
OQU	0.646	0.682	0.726	0.723	0.566	0.725	0.775	0.632	0.728	0.819								
OAC	0.642	0.545	0.792	0.665	0.535	0.681	0.706	0.621	0.712	0.679	0.837							
OCO	0.491	0.435	0.653	0.504	0.387	0.518	0.560	0.549	0.631	0.570	0.718	0.840						
TIM	0.585	0.538	0.737	0.570	0.641	0.705	0.574	0.582	0.675	0.645	0.657	0.682	0.672					
AVA	0.404	0.453	0.521	0.572	0.517	0.596	0.449	0.525	0.529	0.556	0.506	0.415	0.444	0.668				
TSS	0.673	0.639	0.799	0.702	0.516	0.767	0.759	0.562	0.665	0.713	0.819	0.776	0.634	0.746	0.622			
CUS	0.606	0.667	0.763	0.706	0.554	0.797	0.738	0.585	0.708	0.715	0.849	0.696	0.624	0.688	0.565	0.882		
RPI	0.541	0.620	0.709	0.647	0.492	0.696	0.695	0.580	0.678	0.690	0.783	0.662	0.621	0.651	0.518	0.808	0.890	

redundancy measure Q^2, and the statistical significance and relevance of the path coefficients, were considered in the structural model assessment. A collinearity check was first performed by examining the variance inflation factor values of all sets of predictor constructs (Hair et al., 2017). They were all far below the threshold of 5, demonstrating that collinearity was unlikely to bias the path estimates in the structural model. Next, the R^2 values of the endogenous constructs were examined. R^2 values of 0.75, 0.50, and 0.25 can be interpreted as substantial, moderate, and weak, respectively (Hair et al., 2011). The R^2 values of perceived channel integration quality (0.662), transaction-specific satisfaction (0.664), cumulative satisfaction (0.708), and repurchase intention (0.678) were thus regarded as moderate.

Q^2 values were evaluated to determine the predictive accuracy of the structural model. Consistent with the recommendations of Hair et al. (2011), the Q^2 values were considerably greater than zero for a specific endogenous construct. Specifically, those of cumulative satisfaction, transaction-specific satisfaction, and repurchase intention (0.592, 0.565, and 0.560, respectively) represented high predictive accuracy, whereas that of perceived channel integration quality (0.333) represented moderate predictive accuracy (Hair et al., 2019). Overall, the exogenous constructs have adequate predictive relevance for all the endogenous constructs in the model.

Regarding the hypothesis test results, the statistical significance and relevance of the path coefficients in the structural model were considered (Fig. 2). Perceived logistics service quality (β = 0.813, $p < 0.001$) had a significant positive effect on perceived channel integration quality, thus supporting H1. Perceived channel integration quality exerted significant positive effects on both transaction-specific satisfaction (β = 0.311, $p < 0.001$) and cumulative satisfaction (β = 0.275, $p < 0.001$), thus validating H2 and H3. H4 and H5 were supported by the significant positive path from perceived logistics service quality to transaction-specific satisfaction (β = 0.541, $p < 0.001$) and cumulative satisfaction (β = 0.147, $p < 0.05$). The paths from transaction-specific satisfaction to cumulative satisfaction (β = 0.482, $p < 0.001$) and to repurchase intention (β = 0.244, $p < 0.01$) exhibited significant positive effects as hypothesized. Thus, H6 and H7 were supported. Cumulative satisfaction positively and significantly affected repurchase intention (β = 0.614, $p < 0.001$), thus validating H8. Table 9 displays the summary of the hypotheses testing results.

5.3. Moderation analysis

As shown in Table 10, the significant difference of 0.269 ($p < 0.05$) indicated that channel integration quality exerted significantly different effects on transaction-specific satisfaction derived from the BOPS versus BSSD options. The effect of channel integration quality on transaction-specific satisfaction was greater for BOPS sample (β = 0.514, $p < 0.001$) than for BSSD sample (β = 0.338, $p < 0.01$), supporting H9. On the other hand, the effect of logistics service quality on transaction-specific satisfaction was higher for BSSD sample (β = 0.616, $p < 0.001$) than for BOPS sample (β = 0.246, $p < 0.01$), with a significant difference of 0.278 ($p < 0.05$), validating H10. Overall, all hypotheses were supported.

6. Discussion and conclusion

The present study intended to explore the harmonious role of channel integration quality and logistics service quality, examining how they influence satisfaction and further affect repurchase intention from the perspective of customers. In particular, this paper looked to understand the distinguished role of the two types of customer satisfaction (transaction-specific versus cumulative) in enhancing repurchase intention within omnichannel settings. Additionally, this study investigated whether the respective impacts of perceived channel integration quality and perceived logistics service quality differ in enhancing transaction-specific satisfaction through distinct hybrid experiences.
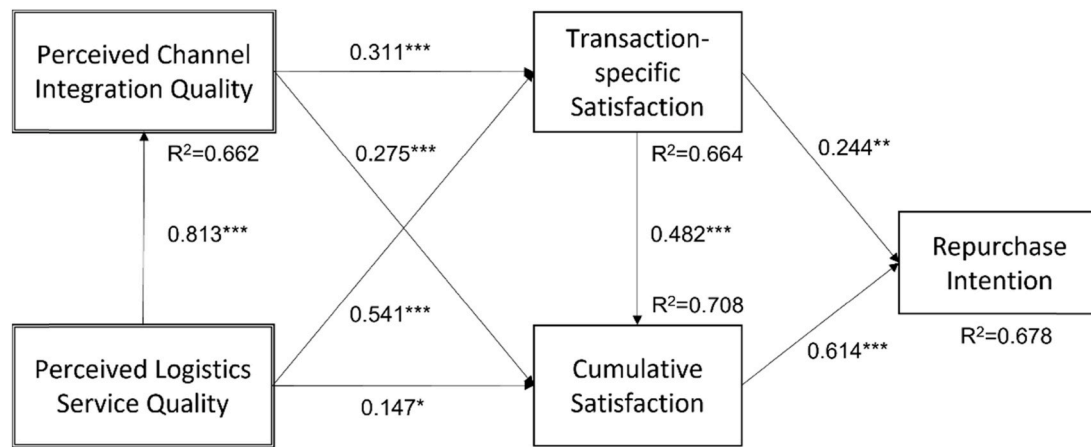
Fig. 2. Results of the structural model assessment.
Note: *p < 0.05; **p < 0.01; ***p < 0.001.

Table 9
Hypothesis testing results.

Hypotheses	Path Coefficient	Mean	S.D.	t-value	Results
H1: LSQ → CIQ	0.813***	0.815	0.023	36.025	Supported
H2: CIQ → TSS	0.311***	0.310	0.072	4.323	Supported
H3: CIQ → OVS	0.275***	0.275	0.071	3.868	Supported
H4: LSQ → TSS	0.541***	0.543	0.072	7.524	Supported
H5: LSQ → OVS	0.147*	0.151	0.070	2.095	Supported
H6: TSS → OVS	0.482***	0.478	0.075	6.421	Supported
H7: TSS → RPI	0.244**	0.245	0.076	3.198	Supported
H8: OVS → RPI	0.614***	0.613	0.069	8.908	Supported

Note: *p < 0.05; **p < 0.01; ***p < 0.001.

On the basis of the SOR framework, the results expose the significant positive effect of perceived channel integration quality and perceived logistics service quality (as stimuli in the retail environment) on both transaction-specific satisfaction and cumulative satisfaction (as organisms), which consequently affect repurchase intention (as a response). Overall, the findings reveal that perceived logistics service quality exerts a substantial effect on perceived channel integration quality and demonstrate that the two variables harmoniously influence customer satisfaction and subsequently drive repurchase intention.

Specifically, the findings indicate that either perceived logistics service quality or perceived integration quality has a dominant influence on a distinguished type of satisfaction. Perceived channel integration quality had a stronger impact on cumulative satisfaction than did perceived logistics service quality, suggesting that satisfaction was greater over time when customers perceived a higher level of channel integration. Perceived logistics service quality had a stronger effect on transaction-specific satisfaction than did perceived channel integration quality, revealing that customers increasingly expect flexible and reliable logistics services when making a one-time transaction.

Furthermore, the findings highlight that perceived channel integration quality and perceived logistics service quality have a respective contribution to enhancing transaction-specific satisfaction through

distinct hybrid experiences. For customers selecting the BOPS option, the effect of perceived channel integration quality on transaction-specific satisfaction was greater than that of perceived logistics service quality. Regarding customers selecting the BSSD option, perceived logistics service quality exerted a stronger significantly positive effect on transaction-specific satisfaction than did perceived channel integration quality.

6.1. Theoretical implications

The present study makes theoretical contributions to three key domains. First, since the complication in providing the integration of logistics among channels become apparent (Davis-Sramek et al., 2020), several scholars have appealed for quantitative studies to investigate the holistic frameworks related to the integration of logistics services across channels (Melacini et al., 2018; Taylor et al., 2019). However, a more comprehensive understanding would be valuable by taking consumers' perceptions into account (R. Mishra et al., 2021). Drawing on the SOR framework, this study contributes to the growing body of knowledge in omnichannel retailing by examining the role of perceived logistics service quality and perceived channel integration quality in affecting customer satisfaction and further repurchase intention. Particularly, this study advances insight into the salience of the association between perceived logistics service quality and perceived channel integration quality in omnichannel retailing. Empirical results disclose that perceived logistics service quality is an important antecedent of perceived channel integration quality and both constructs play critical enablers in achieving customer satisfaction. The findings also corroborate the claim that logistics processes integrated across all channels enable customers to gain a seamless service experience (Murfield et al., 2017; Song et al., 2019).

Second, the present study enriches the consumer behavior literature within omnichannel retailing settings in that customer satisfaction was examined from different points in the transaction process. Regarding repurchase intention, customers consider all their experiences with a

Table 10
Results of moderation analysis.

Hypotheses	Full Sample		BOPS Sample		BSSD Sample		Difference (BOPS - BSSD)	
	Path Coefficient	p-Value	Path Coefficient	p-Value	Path Coefficient	p-Value	Path Coefficient	p-Value
H9: CIQ → TSS	0.311	0.000	0.514	0.000	0.338	0.001	0.269	0.026
H10: LSQ → TSS	0.541	0.000	0.246	0.005	0.616	0.000	−0.278	0.022

Note: p < 0.05 or p > 0.95 represents a significant difference.

given retailer before making a decision. Although both transaction-specific and cumulative satisfaction had significant positive effects on repurchase intention, cumulative satisfaction has the greater influence when comparing the direct effect of transaction-specific satisfaction on repurchase intention and the corresponding indirect effect through cumulative satisfaction. In other words, when customers have favorable overall evaluations of a retailer, they may give that retailer another chance when they have a transaction encounter that is less than fully satisfactory (Jones and Suh, 2000; Yang et al., 2017; Zhao et al., 2012). To the best of our knowledge, this study is the first omnichannel study that distinguishes between transaction-specific and cumulative satisfaction in determining their respective effects on repurchase intention.

Finally, this study expands omnichannel retailing and distribution management literature in that the distinct hybrid experiences (BOPS versus BSSD) were confirmed in moderating the respective effects of perceived channel integration quality and perceived logistics service quality on transaction-specific satisfaction. Under the BOPS option, the findings underscore that even in a one-time transaction, customers perceive integration across all channels as highly required. On the contrary, customers choosing the BSSD option more focuses on the extent to which retailers' logistics services can fulfill their orders correctly and efficiently within a one-time transaction. BOPS and BSSD have been originally investigated by Murfield et al. (2017) and Cotarelo et al. (2021) with regard to dimensions of logistics service quality. This work further extends these investigations by revealing the respective contribution of channel integration quality and logistics service quality in enhancing transaction-specific satisfaction through distinct hybrid experiences (BOPS versus BSSD).

6.2. Managerial implications

This study has several implications for managers of omnichannel retailers. First, to strengthen repurchase intention, retailers should not only focus on cumulative satisfaction but also on transaction-specific satisfaction. The respective impacts of transaction-specific and cumulative satisfaction on repurchase intention differed substantially; therefore, their practical implications are distinct as well. Transaction-specific satisfaction must be measured such that service quality and customer satisfaction can be monitored continually at the service encounter level. For instance, managers can monitor satisfaction with delivery services by requesting that customers complete rating cards or feedback forms at the end of each transaction. Furthermore, to enhance the accuracy of repurchase intention predictions and the maintenance of favorable retailer–customer relationships in the long term, cumulative satisfaction must be evaluated. For example, managers can implement a point-based reward system as a show of appreciation for returning customers. Such a system can also remind customers of the transactions they have made over time.

Second, to augment transaction-specific and cumulative satisfaction through the high-level integration of activities across channels, omnichannel retailers could implement measures according to the dimensions of perceived channel integration quality and perceived logistics service quality. Herein, perceived security, perceived system consistency, perceived information consistency, and perceived channel transparency made the greatest contributions to reflect perceived channel integration quality. Omnichannel retailers should ensure the security of all the channels customers use in the transaction process. Furthermore, consistent search, order, and payment systems should be established across channels to increase ease of use. In addition, product-related information (e.g., availability, price, and delivery options) must be up-to-date and synced across channels. To raise awareness among customers of available channels and their capabilities, omnichannel retailers can launch various communication campaigns, for example through advertisements, emails, or direct face-to-face interactions. Such endeavors would be conducive to the enhancement of cumulative satisfaction.

According to the findings concerning the dimensions of perceived logistics service quality, omnichannel retailers are encouraged to optimize the reliability and efficiency of their logistics processes. Perceived order quality, perceived order accuracy, perceived order condition, perceived timeliness, and perceived availability were all reflective of perceived logistics service quality. Suitable solutions concerning integrated information technology systems and the distribution-related operational efforts must be conceived with respect to these variables. Investing in the development of integrated information technology systems enables the effective management of logistics operations and inventory management across channels in real time. Thus, omnichannel retailers can precisely track product availability and determine how rapidly orders can be delivered with low operating costs. Distribution-related operational efforts should be devoted to not only replenishing store inventory but also to fulfilling orders accurately and efficiently—specifically, to ensuring that products arrive in satisfactory condition, at the right place, and at the right time. These efforts can also increase transport efficiency and reduce delivery costs. In sum, by ensuring an accurate, precise, and rapid order fulfillment process as well as product quality and availability, omnichannel retailers can enhance their customers' transaction-specific satisfaction.

Third, to improve transaction-specific satisfaction, omnichannel retailers should consider the respective contributions of perceived channel integration quality and perceived logistics service quality through distinct hybrid experiences in channel development and the provision of fulfillment options. Customers selecting the BOPS option have ever-increasing expectations for delivery speed. They also seek to avoid delivery fees and place great emphasis on convenient pickup. To optimize this experience, omnichannel retailers are strongly recommended to implement high-level channel integration to establish real-time inventory visibility across all pickup points and provide customers with guidance and consistent information on accessing available pick-up points near them. To prevent long waits at these locations, service operations must be improved and made more efficient.

Customers selecting the BSSD option are interested in examining and possibly testing out products in-store before purchasing them. To avoid hassle, they wish for their purchases to be directly delivered to their homes. Omnichannel retailers are advised to optimize the BSSD experience by expanding the functionalities of digital self-service and by making operational tradeoffs between in-store purchase and home delivery options. Furthermore, concerning the improvement of logistics services, contactless delivery should be offered in combination with automated notifications and real-time order tracking in an integrated system. The implementation of an integrated logistics system enables omnichannel retailers to accelerate order fulfillment in a cost-efficient manner.

7. Limitations and future research

This study has some limitations. First, the sample comprised only customers from one omnichannel retailer within one retail sector. Future studies should consider examining the present conceptual model on the basis of data from various retail sectors; such investigations may enhance the generalizability of these findings. Second, this study was conducted in Indonesia. Considering that findings may vary with the cultural context of the study setting, data from other countries can be collected in the future; moreover, cross-country explorations could be conducted. Third, the constructs mostly used measurement scales of 2 or 3 items. The future research may work with more items to enhance the reliability results. Finally, repurchase intention was the only outcome variable. To gain broader insights into consumer behavior in the omnichannel retailing context, researchers can examine the relationships among transaction-specific satisfaction, cumulative satisfaction, and other relevant outcomes such as positive word-of-mouth.

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