sustainability

MDPI

Article

What Drives Recommendation Intention and Loyalty of Online for Offline (O4O) Consumers?

Hyeon Jo

Department of Planning, RealSecu, 60 Centum buk-daero, Haeundae-gu, Busan 48059, Republic of Korea; sineoriz@gmail.com

Abstract: Recently, a number of companies have started to implement commerce platforms that maximize the profits of offline stores by using online information. This kind of commerce is called online for offline (O4O). This research proposes a research framework to clarify the precursors of recommendation and loyalty in the context of O4O-commerce platforms. Data was gathered from consumers who had experienced O4O. This study conducted partial least squares structural equation modeling to test hypothesized paths. The findings revealed the fact that relative advantages are affected by channel accessibility, perceived multichannel quality, and customization. The analysis results validated the fact that relative advantages do not affect recommendation intention and loyalty. Price fairness impacts both recommendation intention and loyalty. Reputation is significantly related to loyalty. This study is of academic significance in that it approaches O4O as distinct from traditional O2O, by introducing contextual variables. In addition, this paper derives managerial implications for omnichannel companies that operate mainly in offline stores.

Keywords: online for offline; O4O; relative advantages; price fairness; reputation; omnichannel; consumer behavior

Citation: Jo, H. What Drives Recommendation Intention and Loyalty of Online for Offline (O4O) Consumers? *Sustainability* **2023**, *15*, 4775. https://doi.org/10.3390/su15064775

Academic Editors: Belem Barbosa, Pankaj Deshwal and Sikandar Ali Qalati

Received: 5 February 2023
Revised: 6 March 2023
Accepted: 7 March 2023
Published: 8 March 2023

1. Introduction

The commerce environment is constantly evolving. Consumers purchase products and receive packages through mobile apps [1,2]. In the case of food, people place an order via a mobile app, and it is delivered to their home [3,4]. For products such as clothes and shoes, consumers try on at an offline store and place an order through online websites or apps. In some cases, consumers place orders online and pick up products or use services offline [5]. Recently, some companies have started operating new commerce platforms that maximize the store experience by using information obtained through online transactions [6]. Such a commerce platform is called online for offline (O4O). Whereas the existing online-to-offline (O2O) focused on the link between online and offline, O4O creates new business opportunities by expanding the offline domain, based on the capabilities of the online channel [7].

In the case of Amazon Go, visitors enter the store and pay through the app [8]. In Amazon Go stores, customers simply pick up the product, and payment is made automatically [9]. Amazon 4-Star only displays popular products that have received high ratings from customers who purchase from Amazon.com [10]. Consumers can touch the products they saw online and purchase them on the spot [11]. Amazon uses the accumulated data online to improve customer experiences in offline stores. In the H&B store, customers can check online reviews right away by scanning the barcode on the shelf with mobile apps [12]. They can immediately access information stored online to make more profitable consumption. In the case of LF Mall, consumers can pick up products at the local representative store after ordering online [13]. They can receive free returns, exchanges, repairs, and packaging services on-site after fitting at the store. LF managed the integrated online/offline purchase journey through O4O and completed a flexible value chain. Combining the aforementioned concepts and examples, this paper defines O4O as a commerce platform in which (1) an

offline store is oriented and should be experienced, (2) a customer acquires or uses information using information technology (IT), (3) a company processes transactions and customer information using an information system (IS), and (4) online and offline are interconnected. Describing the definition as an example, if consumers purchase clothes on the Internet and pick them up at the store, they use O4O. If a consumer goes to a restaurant and orders using a tablet, they use O4O. If consumers order food through a mobile app and receive it at home, they do not use O4O. The present study applies this definition throughout the manuscript.

O4O includes a variety of online/offline channels. Multichannel and omnichannel have provided consumers with easy channel access and consistent channel quality [14,15]. O4O provides customized services by analyzing the vast amount of customer information collected based on online transactions [16]. Channel accessibility, channel quality, and customization make it easier for consumers to find and purchase the product they want. Ultimately, the relative advantages of O4O may act as a major antecedent in improving consumers' recommendation intention or loyalty. Price plays a very important role in consumer purchasing behavior [17,18]. Price fairness determines consumer satisfaction, word-of-mouth (WOM), and loyalty [19,20]. O4O prioritizes main products that have been popular online in stores and secures price competitiveness by reducing intermediate costs. In this context, the price may act as a fatal variable in raising the level of recommendation intention or loyalty. O4O aims to maximize the sales of offline stores by processing online information. The companies implementing O4O are mainly large firms having both online and offline conditions. Consumers may confirm the company's reputation in the process of accepting and using the new transaction environment of O4O. This is because consumers trust companies with a higher reputation [21,22]. Reputation will ultimately serve as a key deciding factor for consumers' recommendation intention and loyalty.

The current study fills the gaps in existing studies and makes new contributions to the literature in the following respects. First, this paper is aimed at the recently launched trading environment, O4O. Extant studies have mainly focused on multichannel, omnichannel, and O2O [5,10,15,23–26]. This research can derive success factors for offline stores, which have been relatively shrunk due to the rapid growth of e-commerce. Second, this work is different from previous studies, in that it identifies the factors that represent the relative advantages of O4O. For O4O to enter the new market and succeed, it will have to induce continued use or loyalty, by offering new advantages. Studies on the drivers of relative advantages have not been actively conducted. This article focuses on the fact that O4O is based on omnichannel and realizes customization through big data analysis. The results of this study will have significant implications for the development of a new commerce platform as well as the future distribution of O4O, by identifying the formation process of the relative advantages. Third, the present study examines the price fairness of the goods/services on O4O in addition to the technology and attractiveness of O4O itself. Consumers place great importance on the price of goods/services traded in the market. In the O4O environment, sellers can set product prices in offline stores more precisely than in the existing commerce. This study investigates consumer behavior in more detail by examining how consumers perceive the price of goods and the effect of this behavior on recommendation intention and loyalty. Lastly, this research explores the impacts of reputation on recommendation intention and loyalty. Reputation is related to the business activities and brand image that a company has developed in the past [27–29]. Since O4O is a relatively new commerce concept, consumers may need a reference criterion in the selection process. In this situation, the company's reputation facilitates the formation of trust or a favorable attitude among users [21,22,30]. By confirming the role of reputation on consumer responses, this paper can derive a segmented marketing strategy according to the size or recognition of a company.

The composition of this paper is as follows. Section 2 reviews related prior studies. Section 3 introduces the research model and each hypothesis. Section 4 introduces the research methodology; it includes survey measurement instruments and a data collection

process. Section 5 describes the findings of the study. Analysis results for the measurement model and the structural model are presented. Section 6 compares and discusses the findings of this study in relation to those of previous studies. Finally, Section 7 expresses the academic contributions, practical implications, limitations, and corresponding future research directions.

2. Background and Related Work

With the spread of information and communication technology, consumers' proficiency in using information devices has improved. Accordingly, the commerce environment has rapidly evolved. Commerce has developed into several concepts, such as e-commerce, m-commerce, multichannel, omnichannel, and O2O [31–34].

Numerous studies have paid attention to consumer behaviors in various commerce contexts. Hsieh, et al. [14] shed light on consumer loyalty in multichannel distribution. They suggested the conceptual model to explain retention and participation by applying the stimulus-organism-response (S-O-R) framework. The results showed that channel accessibility and perceived multichannel quality indirectly drive retention and participation. Ieva and Ziliani [35] tested the effects of customer experience on loyalty intentions. The authors investigated various touchpoints such as mobile messaging, mobile apps, WOM, physical stores, etc. They showed that reach and positivity are significantly related to customer loyalty. Reach and frequency are similar to the concept of channel accessibility in the current study. Because O4O is operated in conjunction with various channels, channel accessibility may play a key role in building consumer behaviors. Shankar and Winer [36] stated that multichannel customers acquire various perceptions of each channel and have higher expectations. Since O4O typically provides multiple channels, quality assurance among channels is required. Customization has been regarded as an indispensable factor in shopping at AI-assisted stores [37,38]. Pillai, et al. [39] attempted to understand the shopping intention of consumers at AI-assisted stores. They employed customization, a technology-readiness index, and components of the technology acceptance model (TAM). Customization was shown to result in shopping intention. O4O companies process customer information collected online using big data analysis and provide customized services to visitors in offline stores [40]. Sundararajan, et al. [41] clarified the affecting factors in enhancing WOM intentions and loyalty intentions. They demonstrated that loyalty intentions and WOM intentions are affected by relationship quality, service quality, and perceived service value. Chen, et al. [42] investigated the effects of omnichannel collaborative marketing on loyalty in the domain of fresh retailing. It was verified that price coordination and service coordination influence customer loyalty. Yan, et al. [43] analyzed the impacts of social networking services (SNS) on consumers' behaviors in the omnichannel supply chain. They confirmed that SNS can positively affect behaviors. Camelo, et al. [44] employed the S-O-R framework to explore the effects of types of retailers on consumer perceptions of channel integration (CPCI). The authors discovered that customers from high-end specialty shops, hypermarkets, and department stores have diverse perspectives toward omnichannel. Cheah, et al. [45] focused on privacy concerns in explicating the consumers' revisiting behaviors. They corroborated that the effects of CPCI on trust are stronger when privacy concerns are low. Patronage intention was influenced by CPCI, trust, and consumer empowerment.

Organizations can be competitive, and increase profits when they have relative advantages [46]. Relative advantages promote e-commerce adoption [47]. Relative advantages include discounts, convenience, time savings, and product variety [48,49]. One study reported that relative advantages have a significant association with the intention to purchase [50]. O4O can provide various advantages to store visitors through a vast amount of customer information and an integrated infrastructure spanning online/offline. This will improve the recommendation intention or loyalty of consumers.

Several works have emphasized price in elucidating customer behaviors. Marketing literature has used price fairness and price perception interchangeably. Operational

definitions of price fairness and price perception are similar to each other. Septiano and Sari [19] suggested brand image, price perception, and perceived value as the determinants of consumer satisfaction and loyalty. They validated the fact that consumer satisfaction and loyalty are significantly influenced by all three predictors. Bergel and Brock [51] investigated the role of customer engagement in generating loyalty and price perception. They figured out that customer engagement impacts loyalty and price perception via an affective attitude. Konuk [20] developed the structural model to explicate the revisit intentions and WOM intentions of customers in the context of a restaurant. The author found that price fairness and perceived value shape customers' revisit intentions and WOM intentions, through satisfaction. Some research empirically validated the fact that price fairness raises the level of perceived value [52,53]. Sohaib, et al. [54] identified the key factors influencing loyalty and evangelism for green brands. They unveiled how price fairness significantly strengthens the effects of nature-based solutions on mental health and emotional well-being. Moreover, previous studies supported that price fairness significantly influences loyalty [55,56] and purchase decision-making [57]. Based on the aforementioned previous studies, the price of goods/services traded in O4O may also play an important role in the decision-making of consumers.

Some research has examined the effects of reputation on consumer behaviors. Scholars have studied reputation by dividing it into corporate reputation, seller reputation, and website reputation, according to the subject [58–60]. Corporate reputation has a strong influence on whether prospective consumers become customers [61]. Caruana and Ewing [59] discovered that corporate reputation significantly improves online loyalty. Williams, et al. [27] explored the association between WOM and corporate reputation. According to their findings, negative WOM harms the corporate reputation, while positive WOM does not affect corporate reputation. Additionally, there was supporting evidence that WOM has a significant correlation with a corporate reputation [62,63]. Hsu, et al. [60] proposed a conceptual model to describe repurchase intention in online group buying. They designed the formation mechanism of repurchase intention by dividing websites and sellers, based on the IS success model. The results of their study indicated that the reputation of both websites and sellers influences repurchase intention, via trust and satisfaction. Wu, et al. [58] cast light on the behavioral intention of customers in the domain of the tourism industry. They found that behavioral intentions are impacted by corporate reputation. Numerous works validated the fact that reputation is the salient factor in developing trust [21,22]. In this context, the reputation of the O4O company would serve as the vital antecedent of recommendation intention and loyalty.

Many researchers have explicated consumer behaviors by employing the technology theory. Marinković, et al. [64] modified the unified theory of acceptance and use of technology (UTAUT) to identify the precursors of the continuance intention of m-commerce. It was found that epistemic value, perceived trust, and comparative value are the major contributors to continuance intention. Madan and Yadav [65] extended UTAUT by adding variables such as personal innovativeness, perceived critical mass, and promotional benefits, to account for the actual use of mobile shopping. They verified the fact that behavioral intention is influenced by hedonic motivation, perceived critical mass, promotional benefits, and personal innovativeness. Kim, et al. [5] also added personal innovativeness into the UTAUT, model to predict usage intention in O4O environments. They revealed how usage intention is positively affected by facilitating conditions and personal innovativeness. Song and Jo [66] integrated the TAM and theory of planned behavior (TPB) to examine the predictors of continuance intention of omnichannel users. The authors found that accessibility, monetary saving, and perceived risk affect continuance intention via relative advantage.

Several authors have explored consumers using the term O4O. Cui and Yang [7] identified detailed O4O attributes that affect customer loyalty for visitors to Fresh Hema. They mentioned that mobile app quality, mobile payment, product quality, and store facilities affect customer loyalty through customer satisfaction. Son [67] explained the purchase intention of O4O products based on Kakao Friends, a South Korean product

character. The research results showed that character experience and experience satisfaction determine purchase intention, through brand preference.

3. Research Model and Hypothesis

This study aims to identify the key motivators of recommendation intention and loyalty. Figure 1 shows a conceptual framework of the current study. This research posits that channel accessibility, perceived multichannel quality, and customization affect relative advantages. It postulates that relative advantages, price fairness, and reputation influence recommendation and loyalty.

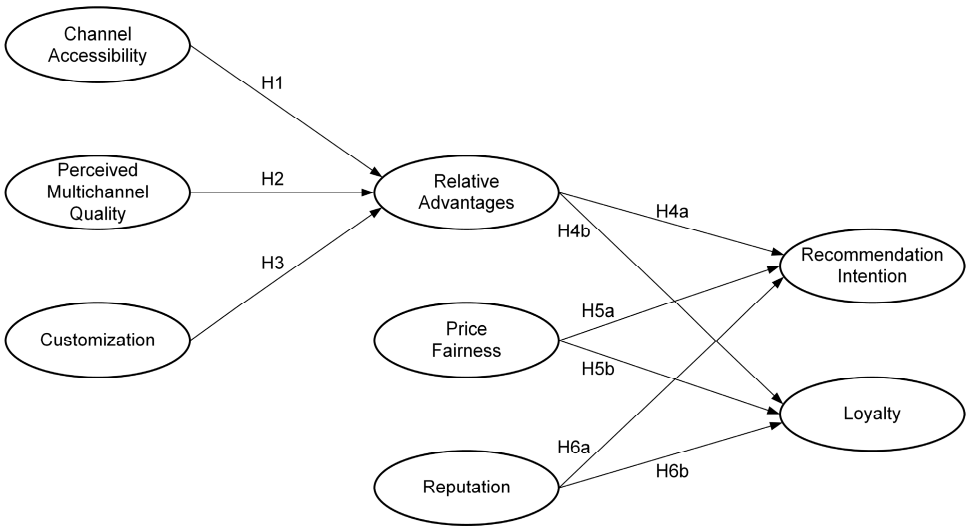

Figure 1. Research Model.

3.1. Channel Accessibility

Channel accessibility refers to the degree to which customers can access various channels such as the website, call center, and offline branches [14]. Multiple channels can improve the ease of access and timeliness [68]. Channel accessibility enhances the levels of perceived multichannel quality, resulting in an increase in perceived multichannel quality, eventually leading to an improvement in retention and a greater formation of participation [14]. Given the above, multichannel would provide consumers with several advantages such as easiness, timeliness, and channel quality. Consumers may perceive that O4O has relative advantages, as O4O offers various channels such as mobile apps, desktop web, and offline stores within a real-time environment. Thus, this study tests the following hypothesis.

H1. *Channel accessibility positively affects relative advantages.*

3.2. Perceived Multichannel Quality

Perceived multichannel quality measures convenience, reliability, goodness, and problem-solving across channels [14]. If multiple channels of O4O provide better quality, consumers may be able to perform transaction-related actions more reliably and easily. Consumers with a higher level of perceived multichannel quality increase their satisfaction [14]. The high quality of the channel creates various advantages in terms of accuracy and efficiency. Therefore, the current study hypothesizes:

H2. *Perceived multichannel quality positively affects relative advantages.*

3.3. Customization

Customization means the degree to which an organization caters to the various needs of the customers [69]. It plays a crucial role in understanding consumer behavior in online commerce [70–72] and offline stores [73]. When O4O provides customized services, consumers can shop for their favorite products more easily and quickly. Hence, this research suggests the following hypothesis.

H3. *Customization positively affects relative advantages.*

3.4. Relative Advantages

Relative advantages represent the competitive benefits that are not possible for O4O users to receive from other types of shopping platforms [74]. It improves the level of positive attitude, leading to an increase in positive WOM [50]. Several authors have demonstrate the fact that relative advantages drive loyalty directly or indirectly in the marketing literature [74–76]. If O4O brings more benefits to consumers, it spread good rumors and builds loyalty in those around them. Accordingly, the present study proposes that relative advantages elevate the levels of recommendation intention and loyalty.

H4a. *Relative advantages positively affect recommendation intention.*

H4b. *Relative advantages positively affect loyalty.*

3.5. Price Fairness

PF is defined as a consumer's evaluation and related emotions of whether the gap between a seller's price and the price of a comparable other party is reasonable, acceptable, or justifiable [77]. When consumers perceive the price of goods as more appropriate, they develop higher loyalty [19]. Price fairness raises the level of WOM intention via satisfaction [20]. If consumers perceive the price of goods/services traded through O4O more favorably, they will recommend it to others more. Consumers with a better perception of the price will form a greater loyalty towards O4O. In this vein, this study surmises that price fairness drives recommendation intention and loyalty.

H5a. *Price fairness positively affects recommendation intention.*

H5b. *Price fairness positively affects loyalty.*

3.6. Reputation

Reputation is defined as the objective depiction of various constituencies' perceptions of an organization, developed through time and based on identity programs, performance, and how constituencies have perceived an organization's actions [78]. The reputation of the seller improves trust in sellers, leading to an enhancement of satisfaction, ultimately resulting in a greater formation of repurchase intention [79]. Negative WOM has strong downside consequences for corporate reputation [27]. Corporate reputation elicits loyalty [59]. The higher the reputation of a company that provides O4O services, the more likely consumers to recommend them to others and be loyal to them.

H6a. *Reputation positively affects recommendation intention.*

H6b. *Reputation positively affects loyalty.*

4. Empirical Methodology

4.1. Measurement Instrument

In this study, questionnaire indicators from previous studies were applied to secure the scientific validity of the measurement tool. Measurement items were slightly modified to ensure their appropriateness in the O4O context. The questionnaire was initially written in English, by the author. A Korean researcher fluent in English translated it into a Korean questionnaire. Then, the Korean version was back-translated into English by a bilingual professional in the marketing field. The double-translation protocol is used to verify that the question is correctly delivered to the respondents. The two English versions of the questionnaire had only slight differences, which were adjusted by the author. All variables except for user experience and personal information were assessed using a 7-point Likert scale. Scholars in IS and marketing areas reviewed the questionnaire to check for problems with content, wording, and question ambiguity. Before distributing the questionnaire, 15 respondents performed the questionnaire for pilot testing [80]. They commented on the vagueness of expression, the flow of content, and additional options for selective questions. The first page of the questionnaire contained information on the purpose of the study, an explanation of O4O, and consent to publication. The next part described the questions about the use of O4O, gender, age, education, and income. Subsequently, the questionnaire asked for indicators of constructs in the research model. Details of the questionnaire for each scale are as follows.

The two statements related to channel accessibility were adapted from [14]. These items included "I can always use O4O service because it has a variety of on/offline" and "I can easily get access to O4O service because it has a variety of on/offline channels".

The two statements related to the perceived multichannel quality were adapted from [14]. These items included "O4O performs well across channels" and "O4O is convenient across channels".

The three statements related to the customization were adapted from [39]. These items included "O4O provides purchase suggestions that suit my requirements", "O4O makes me experience it as a unique customer", and "I am confident that O4O would be customized as per my requirements".

The three statements related to the relative advantages were adapted from [14]. These items included "O4O provides more benefits than a single channel", "O4O is more convenient than a single channel", and "O4O helps me to save time by purchasing goods".

The three statements related to price fairness were adapted from [81]. These items included "The price of goods and services bought through O4O are reasonable", "The price of goods and services bought through O4O are fair", and "The price of goods and services bought through O4O are acceptable".

The three statements related to reputation were adapted from [58]. These items included "O4O company is a well-established company", "O4O company is a highly-regarded company", and "O4O company is a successful company".

The three statements related to the recommendation intention were adapted from [82] out. These items included "I will say positive things about O4O to other people", "I will recommend O4O to anyone who seeks my advice", and "I will refer my acquaintances to O4O".

The three statements related to channel accessibility were adapted from [83,84]. These items included "I am proud to comment to others that I have purchased from O4O", "I buy regularly in O4O", and "I bought more from O4O than from others". Table A1 lists the model constructs and items.

4.2. Data

The results are based on a cross-sectional survey-based field study. A professional market research company in Republic of Korea distributed the questionnaire and collected the responses in March 2022; it has 1.5 million subscribed panels and delivered the survey link to panels. As defined in the Introduction section, this study applied the definition

of O4O to filter the inapplicable responses. O4O is where (1) offline stores are mainly operated, (2) a customer obtains or uses information using IT, (3) companies gather and process the information using ISs, and (4) online and offline are interconnected. The first page of the questionnaire explained the definition of O4O given in this study in detail, along with the case. After that, the respondents were asked if they had experienced O4O. Only participants who responded that they had experienced O4O participated in the main survey. A total of 586 panels were surveyed, and responses were collected from 210 O4O users. This study calculated the sample size for structural equation modeling (SEM) using G*Power [85]. Inputting the required information such as 0.15 effect size and 0.05% α error probability, as well as 3 predictors, the minimum required sample size was 119. Since the sample size of this study is 210, the requirement is appropriately met. The response rate was 35.8%. Respondents were awarded points worth about 1000 KRW. After excluding insincere responses, a total of 205 responses were analyzed. Among the respondents, there were more women (138, 67.3%) than men (67, 32.7%). The age of the group was mainly in their 20s and 30s. A total of 68.3% of the participants had graduated from university. The average monthly income was between KRW 3 million and KRW 8 million. Table 1 details the sample characteristics.

Table 1. Demographic characteristics of the samples.

Demographics	Item	Subjects (N = 205)	
		Frequency	Percentage (%)
Gender	Male	67	32.7
	Female	138	67.3
Age	20s	74	36.1
	30s	65	31.7
	40s	45	22.0
	50s	16	7.8
	60s	5	2.4
Education	Highschool	35	17.1
	Undergraduate	140	68.3
	Graduate	30	14.6
Income (KRW, thousand)	<3000	45	22.0
	3000–4999	69	33.7
	5000–7999	64	31.2
	≥8000	27	13.2

Note: USD1 = KRW1328.

5. Results

This research analyzed the proposed theoretical framework using the partial least squares (PLS) method with SmartPLS 3.3.9 [86]. The PLS is an analysis technique that has been extensively adopted in the IS and marketing fields [87]. PLS was selected for this study due to less restriction on the distribution and sample size of data (Falk and Miller, 1992). A two-step approach was conducted to assess the measurement model and structural model for reliability and validity [88]; the first step is to assess the measurement model and the second step to evaluate the structural model.

5.1. Common Method Bias

To minimize the effect of common method variance (CMV), the current research employed counteractive procedures during the research design and administration [89]. Moreover, this work used the principal-axis factoring method with Harman's single-factor test, confirming that none of the factors individually explains the majority of the variance [89]. The results showed that a common latent factor describes less than 50% of the variance. Therefore, common method bias would not be a crucial issue.

5.2. Measurement Model

This work estimated composite reliability (CR), and used Cronbach's alpha to evaluate the reliability. The results for composite reliability (CR) are greater than 0.870, indicating that the model has good reliability. The lowest score of Cronbach's alphas is 0.751, presenting a satisfactory level of reliability. Convergent validity is acceptable if the factor loading values exceed 0.70 [90]. Convergent validity is satisfied because the factor loadings are well over the recommended threshold of 0.7. Table 2 shows the scale reliabilities of all factors.

Table 2. Factor analysis and reliability.

Construct	Items	Mean	St. Dev.	Factor Loading	Cronbach's Alpha	CR	AVE
Channel Accessibility	CHA1	5.307	1.193	0.889	0.751	0.889	0.801
	CHA2	5.444	1.136	0.901			
Perceived Multichannel Quality	PMQ1	5.268	1.135	0.861	0.733	0.881	0.787
	PMQ2	5.166	1.202	0.913			
Customization	CST1	4.878	1.130	0.851	0.826	0.896	0.742
	CST2	4.756	1.121	0.869			
	CST3	4.727	1.207	0.864			
Relative Advantages	RLA1	5.029	1.143	0.833	0.794	0.879	0.708
	RLA2	5.049	1.112	0.847			
	RLA3	5.259	1.080	0.844			
Price Fairness	PRF1	5.132	1.159	0.902	0.858	0.913	0.778
	PRF2	5.093	1.125	0.865			
	PRF3	4.800	1.028	0.879			
Reputation	RPT1	4.595	1.155	0.798	0.788	0.876	0.702
	RPT2	5.112	1.161	0.841			
	RPT3	5.063	1.082	0.873			
Recommendation Intention	REI1	5.180	1.096	0.929	0.928	0.954	0.874
	REI2	5.122	1.148	0.927			
	REI3	5.068	1.133	0.949			
Loyalty	LYT1	5.059	1.146	0.919	0.914	0.946	0.853
	LYT2	5.190	1.117	0.926			
	LYT3	5.263	1.160	0.926			

Finally, discriminant validity was verified using two criteria (Fornell and Larcker [91] criterion and HTMT). The two indices offer different perspectives and complementary insights into the validity of the measures [92]. The Fornell–Larcker criterion provides a necessary but not sufficient condition for discriminant validity, and it has been criticized for its limited ability to detect weak or moderate correlations between constructs [92–94]. The HTMT provides a more conservative test of discriminant validity, which takes into account the correlation of the measures within each construct. It is more effective than the Fornell–Larcker criterion in detecting discriminant validity issues, especially for constructs with few indicators or weak correlations [92–94]. This study has a scale measured by two indicators, and to further validate the discriminant validity, this research applied both criteria. First, we assessed the discriminant using the Fornell and Larcker [91] criteria. When the root square of the AVE values of the individual factors is greater than the correlation value for that column and row, discriminant validity is satisfied [91]. As seen in Table 3, all of the diagonal entries in bold italics (the square root of AVE) are higher than any other corresponding rows or column elements (inter-construct correlation coefficients).

Second, the present study checked for HTMT values for confirming discriminant validity. As described in Table 4, the HTMT values for all the constructs were less than the threshold of 0.85 [95]. Thus, discriminant validity was achieved.

Table 3. Discriminant Validity (Fornell–Larcker).

Constructs	1	2	3	4	5	6	7	8
1. Channel Accessibility	0.895							
2. Perceived Multichannel Quality	0.708	0.887						
3. Customization	0.520	0.605	0.861					
4. Relative advantages	0.606	0.637	0.587	0.841				
5. Price Fairness	0.586	0.620	0.578	0.734	0.882			
6. Reputation	0.556	0.534	0.567	0.645	0.647	0.838		
7. Recommendation Intention	0.473	0.474	0.524	0.558	0.617	0.536	0.935	
8. Loyalty	0.523	0.521	0.490	0.571	0.632	0.630	0.782	0.924

Note: Diagonal entries are the root square of AVE scores.

Table 4. Discriminant Validity (HTMT).

Constructs	1	2	3	4	5	6	7
1. Channel Accessibility							
2. Perceived Multichannel Quality	0.841						
3. Customization	0.656	0.770					
4. Relative advantages	0.784	0.825	0.725				
5. Price Fairness	0.729	0.780	0.686	0.888			
6. Reputation	0.714	0.699	0.695	0.806	0.780		
7. Recommendation Intention	0.563	0.577	0.596	0.643	0.687	0.620	
8. Loyalty	0.632	0.643	0.563	0.666	0.712	0.737	0.848

5.3. Hypothesis Test

An SEM was performed to evaluate the research model. This work used a bootstrap resampling method with 5000 resamples to check the significance of the hypotheses. The analysis results are shown in Figure 2.

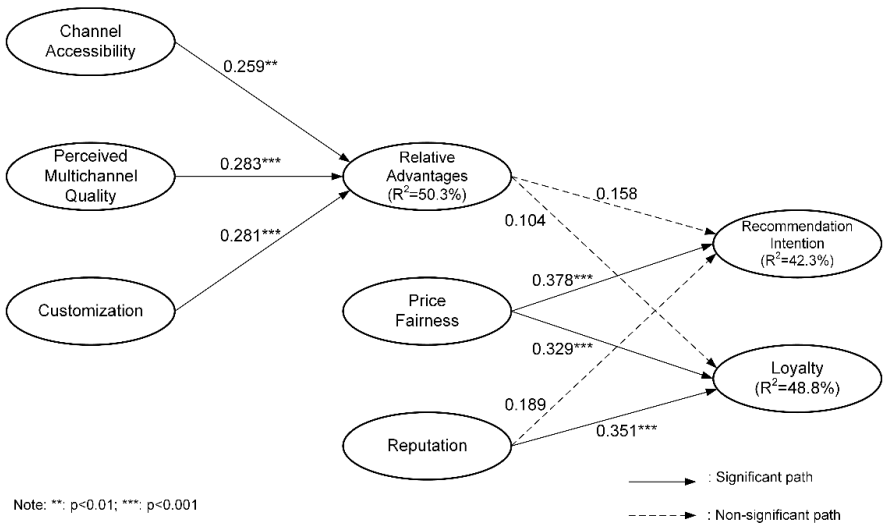

Figure 2. PLS Algorithm Results.

As proposed, channel accessibility has a significant positive impact on relative advantages (b = 0.259, t = 3.173), supporting H1. As suggested, perceived multichannel quality has a significant association with relative advantages (b = 0.283, t = 3.541), supporting H2. Consistent with prediction, customization is significantly related to relative advantages (b = 0.281, t = 3.814), supporting H3. Contrary to prediction, relative advantages are not the motivator of either recommendation intention (b = 0.158, t = 1.724) or loyalty (b = 0.104, t = 0.991), failing to support H4a and H4b. Consistent with the hypothesis, price fairness is the antecedent factor of both recommendation intention (b = 0.378, t = 3.662) and loyalty

(b = 0.329, t = 3.307), supporting H5a and H5b. Unexpectedly, reputation does not have a significant correlation with recommendation intention (b = 0.189, t = 1.71), failing to support H6a. In line with the hypothesis, reputation affects loyalty (b = 0.351, t = 4.478), supporting H6b. Overall, the structural model accounts for approximately 42.3 percent of the variance in recommendation intention and 48.8 percent of the variance in loyalty. Table 5 summarizes the results of the SEM analysis.

Table 5. Analysis Results of Path Coefficients.

H	Cause	Effect	Coefficient	T-Value	Hypothesis
H1	Channel accessibility	Relative advantages	0.259	3.173	Supported
H2	Perceived multichannel quality	Relative advantages	0.283	3.541	Supported
H3	Customization	Relative advantages	0.281	3.814	Supported
H4a	Relative advantages	Recommendation intention	0.158	1.724	Not Supported
H4b	Relative advantages	Loyalty	0.104	0.991	Not Supported
H5a	Price Fairness	Recommendation intention	0.378	3.662	Supported
H5b	Price Fairness	Loyalty	0.329	3.307	Supported
H6a	Reputation	Recommendation intention	0.189	1.710	Not Supported
H6b	Reputation	Loyalty	0.351	4.478	Supported

6. Discussion

The purpose of the current study was to cast light on the factors affecting the recommendation intention and loyalty of the consumer using O4O. This has been achieved through the introduction of relative advantages, price fairness, and corporate reputation.

The findings found that channel accessibility is the driver of relative advantages. The previous study also supported the fact that channel accessibility improves the levels of retention and participation, through satisfaction [14]. One possible explanation for the significant effect of channel accessibility on relative advantages is that the more accessible the various channels involved in O4O, the higher the relative advantages of it as considered by the users.

The results unveiled the fact that perceived multichannel quality is the antecedent of relative advantages. It was validated that perceived multichannel quality plays a crucial role in forming consumer loyalty [14]. A possible explanation for these results is that the more well-connected and high-quality the O4O services are across all channels, the higher the relative advantage perceived by users.

The analysis results verified that customization has a significant influence on relative advantages. Former works demonstrated how customization serves as the vital determinant of satisfaction [96,97] and intention to shop [39]. These findings are based on the fact that when the O4O services provide specialized information to the user, the users value their advantages more highly.

The study results validated the fact that relative advantages are not the antecedent factors of recommendation intention and loyalty. Former works found that relative advantages positively affect WOM indirectly [50] and loyalty directly [74]. The discrepancy between these findings and those observed in previous research may be explicated by the following reason. First, users have not experienced enough examples necessary for recommendation or loyalty, because only a few companies are currently offering O4O services. Second, a certain amount of online information processing systems are operated even in a single channel, other than by O4O, in the current market.

The results pointed out how price fairness is the determinant of recommendation intention and loyalty. It was discovered that price fairness and perceived value significantly influence WOM intention via satisfaction [20,57]. One plausible explanation for these findings is that the more reasonable the products and services handled by O4O, the more users recommend them to others, and the more loyalty they form.

The findings of the present study uncovered the fact that corporate reputation is not the deciding factor of recommendation intention. However, corporate reputation was

shown to positively influence loyalty. Previous studies empirically supported the fact that corporate reputation elevates the levels of trust [98] and satisfaction [61,99]. There is empirical support for the reputation of sellers and the reputation of websites enhancing the repurchase intention indirectly [79]. The observed phenomenon might refer to the following reasons. Even if the company that provides the O4O has a good reputation, it is necessary for consumers to continuously verify the practical benefits mentioned above. Therefore, users may be hesitant to recommend O4O services to others. However, users show higher loyalty, as the company has a good reputation because O4O consists of multiple online/offline channels and uses the latest IT.

7. Conclusions

7.1. Theoretical Implications

This paper makes the following academic contributions. First, it illuminates O4O, a new hybrid commerce environment based on omnichannel. Existing studies on e-commerce have mainly shown interest in omnichannel, which maximizes consumer experience by using multiple channels [24,100,101]. Some researchers have explored an environment where consumers can use the information they need on time by connecting online and offline [102,103]. O4O aims to improve sales of offline stores by analyzing customer information obtained through online transactions. This research contributes to academia by identifying the main factors of the new commerce ideology targeting O4O users. Starting from this study, scholars will be able to clarify various factors and mechanisms that are mutually beneficial to both sellers and buyers in the O4O environment. For example, they may suggest ways to reduce in-store staffing, to improve price fairness for goods/services offered in O4O.

Second, the current study adds a new contribution to the existing literature by elucidating the relative transactional advantages of O4O and its antecedent factors. The study results demonstrated the fact that the relative advantages are positively determined by channel accessibility, perceived multichannel quality, and customization. Researchers need to explore new ways to enhance the levels of channel accessibility, perceived multichannel quality, and of customization of O4O services. For example, a large-capacity server extension or cloud operating system may be suitable for stable channel access. To raise channel quality, an enterprise-wide customer-information management system is required. For customization, companies can provide more accurate special systems through information alliances with companies in other trading environments which are used by key customers. On the other hand, it was found that relative advantages do not significantly affect recommendation intention and loyalty. This is probably because the current O4O service is in its infancy, with insufficient experience among survey respondents. If scholars devise a way to make O4O spread quickly, consumers are more likely to recommend it to others and to build higher loyalty. They can propose a compensation policy that gives monetary benefits to consumers who recommend O4O apps to others.

Third, this article offers an academic contribution by revealing that price fairness has a significant effect on consumers' recommendation intention and loyalty. According to the IT literature, the price of transaction technology such as mobile internet determines the intention to continue using it [104]. In general, websites and mobile apps used in the e-commerce environment are free. Accordingly, this study focused on the price of goods/services, not the price of transaction IT. Even if a retailer introduces a new trading platform, consumers will not form a favorable attitude if the price of the product or service is not reasonable. The present study confirmed the importance of price in the O4O environment, too. Therefore, it would be meaningful for academia to more specifically illuminate the price fairness and perceived product value from the perspectives of consumers of O4O services.

Finally, this study drew new implications by proving that a company's reputation affects consumers' WOM and loyalty. The results of the study revealed that the company's reputation does not significantly affect the recommendation intention. On the other hand, companies with better reputations encourage users to develop a higher level of loyalty.

While recommendation intention is accompanied by responsibility in the sense that consumers influence others, loyalty is a personal reaction that consumers themselves have toward O4O. In the current situation, where not many companies provide O4O, it may be difficult for consumers to make recommendations to others. Since the formation mechanisms of recommendation intention and loyalty may be different, scholars need to study additional parameters or moderating effects to obtain a more in-depth understanding of O4O itself and its consumers. They can conduct interviews or experiments by dividing consumers according to the levels of recommendation intention and loyalty.

7.2. Practical Implications

This paper presents several practical implications for the industry. First, it derived valuable conclusions by empirically analyzing the O4O environment and its users at an early stage. O4O is common with existing O2O in that (1) it is based on omnichannel and (2) presupposes free transition across channels. However, O4O utilizes the vast amount of customer-behavior information collected online to form a relative advantage and ultimately create a more desirable transaction experience. Because O4O prioritizes sales of offline stores, the categories and prices of goods/services are different from those of the existing omnichannel. In addition, most of the companies that are currently implementing O4O are famous. In this context, the current research suggests O4O-specific variables, and elucidates their roles. The results of this study can be a useful source of information for omnichannel-transaction directors, offline-store managers, and consumers.

Second, the present study makes noteworthy suggestions for practitioners by revealing the fact that the relative advantages of O4O are influenced by channel accessibility, perceived multichannel quality, and customization. O4O's IS managers need to continuously monitor the network status and server processing rate of all channels in operation, to enhance channel accessibility. In addition, they must provide consistent information and maintain stable system quality for each channel. IS managers have to apply a control system to manage 24/7 O4O transactions smoothly. Data analysts may benefit from providing customized recommendations and services to customers through big data analytics.

Third, this study proposes a marketing strategy plan for practitioners by identifying the role of price fairness. In some mobile commerce, individual sellers' sales history, product value, and price fairness play a key role in consumption decisions [105–107]. Because O4O integrates consumer-information devices, in-store technologies, and in-company information-processing infrastructure, consumers may expect more reasonable prices. The study results demonstrated that price fairness has a significant effect on both recommendation intention and loyalty. It would be beneficial for marketers to set prices for products on O4O which are more attractive, compared with competing platforms. Executives are required to entice consumers by highlighting the transactional experience that only brick-and-mortar stores can offer, and then convince them, with a fair price.

Finally, this work provides practitioners with managerial clues by verifying how corporate reputation builds consumers' recommendation intention and loyalty. Strategists at large corporations can use their existing reputation to promote O4O and instill trust in potential customers. Small and medium-sized enterprises (SMEs) that create O4O apps can leverage their reputation through partnerships with large companies. It will be effective if consumers prefer to use the O4O service of a reputable company first and then decide whether to continue using it after personal evaluation.

7.3. Limitations and Further Research

This study has some limitations, and suggests the following future research directions. First, this research did not reflect all types of offline stores. O4O is applied to various product groups such as books, clothing, and restaurants. Since the behavior of O4O users may vary, depending on the store and product group, future research will be meaningful in consideration of these factors. Second, the current study surveyed only one country. To improve the generality of the research model, it is necessary to conduct quantitative

research in more countries in the future. Finally, this work has limitations in that it was conducted at the initial point of O4O diffusion. Since O4O dissemination and empirical recognition can affect recommendation intention and loyalty, it would be valuable to regularly observe O4O users in order to observe the dynamic impact.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data used in this study are available from the corresponding authors upon reasonable request.

Conflicts of Interest: The author declares no conflict of interest.

Appendix A

Table A1. List of model constructs and items.

Constructs	Items	Meaning	Source
Channel Accessibility	CHA1	I can always use the O4O service because it has a variety of on/offline channels.	Hsieh, et al. [14]
	CHA2	I can easily access the O4O service because it has various on/offline channels.	
Perceived Multichannel Quality	PMQ1	O4O performs well across channels.	Hsieh, et al. [14]
	PMQ2	O4O is convenient across channels.	
Customization	CST1	O4O provides purchase suggestions that suit my requirements.	Pillai, et al. [39]
	CST2	O4O makes me experience it as a unique customer.	
	CST3	I am confident that O4O would be customized as per my requirements.	
Relative Advantages	RLA1	O4O provides more benefits than a single channel.	Hsieh, et al. [14]
	RLA2	O4O is more convenient than a single channel.	
	RLA3	O4O helps me to save time by purchasing goods.	
Price Fairness	PRF1	The price of goods and services bought through O4O are reasonable.	Vaidyanathan and Aggarwal [81]
	PRF2	The price of goods and services bought through O4O are fair.	
	PRF3	The price of goods and services bought through O4O are acceptable.	
Reputation	RPT1	O4O company is a well-established company.	Wu, et al. [58]
	RPT2	O4O company is a highly-regarded company.	
	RPT3	O4O company is a successful company.	
Recommendation Intention	REI1	I will say positive things about O4O to other people.	Kim and Son [82]
	REI2	I will recommend O4O to anyone who seeks my advice.	
	REI3	I will refer my acquaintances to O4O.	
Loyalty	LYT1	I am proud to comment to others that I have purchased from O4O.	Murfield, et al. [84] Davis-Sramek, et al. [83]
	LYT2	I buy regularly in O4O.	
	LYT3	I bought more from O4O than from others.	

References

1. Tang, A.K. A systematic literature review and analysis on mobile apps in m-commerce: Implications for future research. *Electron. Commer. Res. Appl.* **2019**, *37*, 100885. [CrossRef]
2. McLean, G.; Osei-Frimpong, K.; Al-Nabhani, K.; Marriott, H. Examining consumer attitudes towards retailers'm-commerce mobile applications—An initial adoption vs. continuous use perspective. *J. Bus. Res.* **2020**, *106*, 139–157. [CrossRef]
3. Lee, E.-Y.; Lee, S.-B.; Jeon, Y.J.J. Factors influencing the behavioral intention to use food delivery apps. *Soc. Behav. Personal. Int. J.* **2017**, *45*, 1461–1473. [CrossRef]
4. Kaur, P.; Dhir, A.; Talwar, S.; Ghuman, K. The value proposition of food delivery apps from the perspective of theory of consumption value. *Int. J. Contemp. Hosp. Manag.* **2021**, *33*, 1129–1159. [CrossRef]
5. Kim, S.; Connerton, T.P.; Park, C. Transforming the automotive retail: Drivers for customers' omnichannel BOPS (Buy Online & Pick up in Store) behavior. *J. Bus. Res.* **2022**, *139*, 411–425. [CrossRef]
6. Korea IT Times. Over Half of Convenient O2O Service of Korea Is a White Elephant. 2019. Available online: http://www.koreaittimes.com/news/articleView.html?idxno=90844 (accessed on 26 July 2022).
7. Cui, C.; Yang, S.-B. The Impact of O4O Selection Attributes on Customer Satisfaction and Loyalty: Focusing on the Case of Fresh Hema in China. *Knowl. Manag. Res.* **2020**, *21*, 249–269. [CrossRef]
8. Ives, B.; Cossick, K.; Adams, D. Amazon Go: Disrupting retail? *J. Inf. Technol. Teach. Cases* **2019**, *9*, 2–12. [CrossRef]
9. Huberman, J. Amazon Go, surveillance capitalism, and the ideology of convenience. *Econ. Anthropol.* **2021**, *8*, 337–349. [CrossRef]
10. Jindal, R.P.; Gauri, D.K.; Li, W.; Ma, Y. Omnichannel battle between Amazon and Walmart: Is the focus on delivery the best strategy? *J. Bus. Res.* **2021**, *122*, 270–280. [CrossRef]
11. Etnews. [Korea's Hope Project] <711> O4O. Available online: https://www.etnews.com/20210604000049 (accessed on 17 August 2022).
12. SmartEconomy. What Are the Meanings of O2O, O4O, and Omnichannel? Available online: http://www.dailysmart.co.kr/news/articleView.html?idxno=8352 (accessed on 17 August 2022).
13. Post, F. COVID-19's O4O Strategy. "But You Have to Try on Your Own Clothes". Available online: https://fpost.co.kr/board/bbs/board.php?bo_table=special&wr_id=862 (accessed on 17 August 2022).
14. Hsieh, Y.C.; Roan, J.; Pant, A.; Hsieh, J.K.; Chen, W.Y.; Lee, M.; Chiu, H.C. All for one but does one strategy work for all? Building consumer loyalty in multi-channel distribution. *Manag. Serv. Qual. Int. J.* **2012**, *22*, 310–335. [CrossRef]
15. Hossain, T.M.T.; Akter, S.; Kattiyapornpong, U.; Dwivedi, Y.K. Multichannel integration quality: A systematic review and agenda for future research. *J. Retail. Consum. Serv.* **2019**, *49*, 154–163. [CrossRef]
16. Zhang, C.; Zheng, X. Customization strategies between online and offline retailers. *Omega* **2021**, *100*, 102230. [CrossRef]
17. Peres, R.S.; Jia, X.; Lee, J.; Sun, K.; Colombo, A.W.; Barata, J. Industrial artificial intelligence in industry 4.0-systematic review, challenges and outlook. *IEEE Access* **2020**, *8*, 220121–220139. [CrossRef]
18. Liang, L.J.; Choi, H.C.; Joppe, M. Understanding repurchase intention of Airbnb consumers: Perceived authenticity, electronic word-of-mouth, and price sensitivity. *J. Travel Tour. Mark.* **2018**, *35*, 73–89. [CrossRef]
19. Septiano, R.; Sari, L. Determination of consumer loyalty through customer satisfaction. *Dinasti Int. J. Econ. Financ. Account.* **2020**, *1*, 865–878. [CrossRef]
20. Konuk, F.A. The influence of perceived food quality, price fairness, perceived value and satisfaction on customers' revisit and word-of-mouth intentions towards organic food restaurants. *J. Retail. Consum. Serv.* **2019**, *50*, 103–110. [CrossRef]
21. Li, X.; Hess, T.J.; Valacich, J.S. Why do we trust new technology? A study of initial trust formation with organizational information systems. *J. Strateg. Inf. Syst.* **2008**, *17*, 39–71. [CrossRef]
22. Teo, T.S.H.; Liu, J. Consumer trust in e-commerce in the United States, Singapore and China. *Omega* **2007**, *35*, 22–38. [CrossRef]
23. Lazaris, C.; Vrechopoulos, A. From multichannel to "omnichannel" retailing: Review of the literature and calls for research. In Proceedings of the 2nd International Conference on Contemporary Marketing Issues, (ICCMI), Athens, Greece, 18–20 June 2014; pp. 1–6.
24. Park, J.; Kim, R.B. The effects of integrated information & service, institutional mechanism and need for cognition (NFC) on consumer omnichannel adoption behavior. *Asia Pac. J. Mark. Logist.* **2021**, *33*, 1386–1414. [CrossRef]
25. Roh, M.; Park, K. Adoption of O2O food delivery services in South Korea: The moderating role of moral obligation in meal preparation. *Int. J. Inf. Manag.* **2019**, *47*, 262–273. [CrossRef]
26. Kang, J.-W.; Namkung, Y. The information quality and source credibility matter in customers' evaluation toward food O2O commerce. *Int. J. Hosp. Manag.* **2019**, *78*, 189–198. [CrossRef]
27. Williams, M.; Buttle, F.; Biggemann, S. Relating word-of-mouth to corporate reputation. *Public Commun. Rev.* **2012**, *2*, 3–16. [CrossRef]
28. Milewicz, J.; Herbig, P. Evaluating the brand extension decision using a model of reputation building. *J. Prod. Brand Manag.* **1994**, *3*, 39–47. [CrossRef]
29. Cretu, A.E.; Brodie, R.J. Brand image, corporate reputation, and customer value. In *Business-to-Business Brand Management: Theory, Research and Executivecase Study Exercises*; Emerald Group Publishing Limited: Bingley, UK, 2009.
30. Stravinskienė, J.; Matulevičienė, M.; Hopenienė, R. Impact of corporate reputation dimensions on consumer trust. *Eng. Econ.* **2021**, *32*, 177–192. [CrossRef]

31. Dumanska, I.; Hrytsyna, L.; Kharun, O.; Matviiets, O. E-commerce and M-commerce as Global Trends of International Trade Caused by the COVID-19 Pandemic. *WSEAS Trans. Environ. Dev.* **2021**, *17*, 386–397. [CrossRef]
32. Kim, H.; Ryu, M.H.; Lee, D.; Kim, J.H. Should a small-sized store have both online and offline channels? An efficiency analysis of the O2O platform strategy. *J. Retail. Consum. Serv.* **2022**, *64*, 102823. [CrossRef]
33. Susanto, H.; Sucahyo, Y.G.; Ruldeviyani, Y.; Gandhi, A. Analysis of factors that influence purchase intention on omni-channel services. In Proceedings of the 2018 International Conference on Advanced Computer Science and Information Systems (ICACSIS), Yogyakarta, Indonesia, 27–28 October 2018; pp. 151–155.
34. Kazancoglu, I.; Aydin, H. An investigation of consumers' purchase intentions towards omni-channel shopping: A qualitative exploratory study. *Int. J. Retail Distrib. Manag.* **2018**, *46*, 959–976. [CrossRef]
35. Ieva, M.; Ziliani, C. The role of customer experience touchpoints in driving loyalty intentions in services. *TQM J.* **2018**, *30*, 444–457. [CrossRef]
36. Shankar, V.; Winer, R.S. Interactive marketing goes multichannel. *J. Interact. Mark.* **2005**, *19*, 2–3. [CrossRef]
37. Pierdicca, R.; Liciotti, D.; Contigiani, M.; Frontoni, E.; Mancini, A.; Zingaretti, P. Low cost embedded system for increasing retail environment intelligence. In Proceedings of the 2015 IEEE International Conference on Multimedia & Expo Workshops (ICMEW), Turin, Italy, 29 June–3 July 2015; pp. 1–6.
38. Chopra, K. Indian shopper motivation to use artificial intelligence. *Int. J. Retail Distrib. Manag.* **2019**, *47*, 331–347. [CrossRef]
39. Pillai, R.; Sivathanu, B.; Dwivedi, Y.K. Shopping intention at AI-powered automated retail stores (AIPARS). *J. Retail. Consum. Serv.* **2020**, *57*, 102207. [CrossRef]
40. Lee, S.M.; Lee, D. "Untact": A new customer service strategy in the digital age. *Serv. Bus.* **2020**, *14*, 1–22. [CrossRef]
41. Sundararajan, A.; Chavan, A.; Saleem, D.; Sarwat, A.I. A survey of protocol-level challenges and solutions for distributed energy resource cyber-physical security. *Energies* **2018**, *11*, 2360. [CrossRef]
42. Chen, X.; Su, X.; Li, Z.; Wu, J.; Zheng, M.; Xu, A. The impact of omni-channel collaborative marketing on customer loyalty to fresh retailers: The mediating effect of the omni-channel shopping experience. *Oper. Manag. Res.* **2022**, *15*, 983–997. [CrossRef]
43. Yan, B.; Chen, Y.-R.; Zhou, X.-T.; Fang, J. Consumer behavior in the omni-channel supply chain under social networking services. *Ind. Manag. Data Syst.* **2019**, *119*, 1785–1801. [CrossRef]
44. Camelo, J.L.T.; Cheung, J.T.T.; Lim, B.H.; Tieng, D.N.B. Volatility to Sustainability: Examining the Implications of a Play-to-Earn Game in the Metaverse. Bachelor's Thesis, Ramon V. Del Rosario College of Business, Manila, Philippines, 2022.
45. Cheah, J.-H.; Lim, X.-J.; Ting, H.; Liu, Y.; Quach, S. Are privacy concerns still relevant? Revisiting consumer behaviour in omnichannel retailing. *J. Retail. Consum. Serv.* **2022**, *65*, 102242. [CrossRef]
46. Rogers, E.M. *Diffusion of Innovation*; Simon Schuster: New York, NY, USA, 1995.
47. Ariansyah, K.; Sirait, E.R.E.; Nugroho, B.A.; Suryanegara, M. Drivers of and barriers to e-commerce adoption in Indonesia: Individuals' perspectives and the implications. *Telecommun. Pol.* **2021**, *45*, 102219. [CrossRef]
48. Amaro, S.; Duarte, P. An integrative model of consumers' intentions to purchase travel online. *Tour. Manag.* **2015**, *46*, 64–79. [CrossRef]
49. Jensen, J.M. Travellers' Intentions to Purchase Travel Products Online: The Role of Shopping Orientation. In *Advances in Tourism Economics: New Developments*; Matias, Á., Nijkamp, P., Sarmento, M., Eds.; Physica-Verlag HD: Heidelberg, Germany, 2009; pp. 203–215.
50. Agag, G.; El-Masry, A.A. Understanding consumer intention to participate in online travel community and effects on consumer intention to purchase travel online and WOM: An integration of innovation diffusion theory and TAM with trust. *Comput. Hum. Behav.* **2016**, *60*, 97–111. [CrossRef]
51. Bergel, M.; Brock, C. Visitors' loyalty and price perceptions: The role of customer engagement. *Serv. Ind. J.* **2019**, *39*, 575–589. [CrossRef]
52. Oh, H. The Effect of Brand Class, Brand Awareness, and Price on Customer Value and Behavioral Intentions. *J. Hosp. Tour. Res.* **2000**, *24*, 136–162. [CrossRef]
53. Ferreira, D.A.; Avila, M.G.; De Faria, M.D. Corporate social responsibility and consumers' perception of price. *Soc. Responsib. J.* **2010**, *6*, 208–221. [CrossRef]
54. Sohaib, M.; Wang, Y.; Iqbal, K.; Han, H. Nature-based solutions, mental health, well-being, price fairness, attitude, loyalty, and evangelism for green brands in the hotel context. *Int. J. Hosp. Manag.* **2022**, *101*, 103126. [CrossRef]
55. Herrmann, A.; Xia, L.; Monroe, K.B.; Huber, F. The influence of price fairness on customer satisfaction: An empirical test in the context of automobile purchases. *J. Prod. Brand Manag.* **2007**, *16*, 49–58. [CrossRef]
56. Opata, C.N.; Xiao, W.; Nusenu, A.A.; Tetteh, S.; Asante Boadi, E. The impact of value co-creation on satisfaction and loyalty: The moderating effect of price fairness (empirical study of automobile customers in Ghana). *Total Qual. Manag. Bus. Excell.* **2021**, *32*, 1167–1181. [CrossRef]
57. Konuk, F.A. Price fairness, satisfaction, and trust as antecedents of purchase intentions towards organic food. *J. Consum. Behav.* **2018**, *17*, 141–148. [CrossRef]
58. Wu, H.-C.; Cheng, C.-C.; Ai, C.-H. A study of experiential quality, experiential value, trust, corporate reputation, experiential satisfaction and behavioral intentions for cruise tourists: The case of Hong Kong. *Tour. Manag.* **2018**, *66*, 200–220. [CrossRef]
59. Caruana, A.; Ewing, M.T. How corporate reputation, quality, and value influence online loyalty. *J. Bus. Res.* **2010**, *63*, 1103–1110. [CrossRef]

60. Hsu, C.-L.; Yu, C.-C.; Wu, C.-C. Exploring the continuance intention of social networking websites: An empirical research. *Inf. Syst. e-Bus. Manag.* **2014**, *12*, 139–163. [CrossRef]
61. Helm, S. Exploring the impact of corporate reputation on consumer satisfaction and loyalty. *J. Cust. Behav.* **2006**, *5*, 59–80. [CrossRef]
62. Rogerson, W.P. Reputation and product quality. *Bell J. Econ.* **1983**, *14*, 508–516. [CrossRef]
63. Cornelissen, J. Corporate image: An audience centred model. *Corp. Commun. Int. J.* **2000**, *5*, 119–125. [CrossRef]
64. Marinković, V.; Đorđević, A.; Kalinić, Z. The moderating effects of gender on customer satisfaction and continuance intention in mobile commerce: A UTAUT-based perspective. *Technol. Anal. Strateg. Manag.* **2020**, *32*, 306–318. [CrossRef]
65. Madan, K.; Yadav, R. Understanding and predicting antecedents of mobile shopping adoption: A developing country perspective. *Asia Pac. J. Mark. Logist.* **2018**, *30*, 139–162. [CrossRef]
66. Song, H.G.; Jo, H. Understanding the Continuance Intention of Omnichannel: Combining TAM and TPB. *Sustainability* **2023**, *15*, 3039. [CrossRef]
67. Son, J.-y. A Study of the Influence of Online Digital Character Experience on Offline Related Products Purchasing Intention-Focused on Kakao Friends O4O (Online for Offline) Product Portfolio. *J. Korea Contents Assoc.* **2019**, *19*, 296–304.
68. Patrício, L.; Fisk, R.P.; e Cunha, J.F. Improving satisfaction with bank service offerings: Measuring the contribution of each delivery channel. *Manag. Serv. Qual. Int. J.* **2003**, *13*, 471–482. [CrossRef]
69. Liao, S.S.; Li, Q.; Xu, D.J. A Bayesian network-based framework for personalization in mobile commerce applications. *Commun. Assoc. Inf. Syst.* **2005**, *15*, 28. [CrossRef]
70. Kalinic, Z.; Marinkovic, V. Determinants of users' intention to adopt m-commerce: An empirical analysis. *Inf. Syst. E-Bus. Manag.* **2016**, *14*, 367–387. [CrossRef]
71. Marinkovic, V.; Kalinic, Z. Antecedents of customer satisfaction in mobile commerce: Exploring the moderating effect of customization. *Online Inf. Rev.* **2017**, *41*, 138–154. [CrossRef]
72. Morosan, C. Toward an integrated model of adoption of mobile phones for purchasing ancillary services in air travel. *Int. J. Contemp. Hosp. Manag.* **2014**, *26*, 246–271. [CrossRef]
73. Kesari, B.; Atulkar, S. Satisfaction of mall shoppers: A study on perceived utilitarian and hedonic shopping values. *J. Retail. Consum. Serv.* **2016**, *31*, 22–31. [CrossRef]
74. Esmaeili, A.; Haghgoo, I.; Davidavičienė, V.; Meidutė-Kavaliauskienė, I. Customer loyalty in mobile banking: Evaluation of perceived risk, relative advantages, and usability factors. *Eng. Econ.* **2021**, *32*, 70–81. [CrossRef]
75. Leckie, C.; Nyadzayo, M.W.; Johnson, L.W. Promoting brand engagement behaviors and loyalty through perceived service value and innovativeness. *J. Serv. Mark.* **2018**, *32*, 70–82. [CrossRef]
76. Japutra, A.; Utami, A.F.; Molinillo, S.; Ekaputra, I.A. Influence of customer application experience and value in use on loyalty toward retailers. *J. Retail. Consum. Serv.* **2021**, *59*, 102390. [CrossRef]
77. Xia, L.; Monroe, K.B.; Cox, J.L. The Price is Unfair! A Conceptual Framework of Price Fairness Perceptions. *J. Mark.* **2004**, *68*, 1–15. [CrossRef]
78. Iwu-Egwuonwu, D.; Chibuike, R. Corporate reputation & firm performance: Empiricial literature evidence. *Int. J. Bus. Manag.* **2011**, *6*, 197–206.
79. Hsu, M.-H.; Chang, C.-M.; Chu, K.-K.; Lee, Y.-J. Determinants of repurchase intention in online group-buying: The perspectives of DeLone & McLean IS success model and trust. *Comput. Hum. Behav.* **2014**, *36*, 234–245. [CrossRef]
80. Akter, S.; D'Ambra, J.; Ray, P. Service quality of mHealth platforms: Development and validation of a hierarchical model using PLS. *Electron. Mark.* **2010**, *20*, 209–227. [CrossRef]
81. Vaidyanathan, R.; Aggarwal, P. Who is the fairest of them all? An attributional approach to price fairness perceptions. *J. Bus. Res.* **2003**, *56*, 453–463. [CrossRef]
82. Kim, S.S.; Son, J.-Y. Out of dedication or constraint? A dual model of post-adoption phenomena and its empirical test in the context of online services. *MIS Q.* **2009**, *33*, 49–70. [CrossRef]
83. Davis-Sramek, B.; Droge, C.; Mentzer, J.T.; Myers, M.B. Creating commitment and loyalty behavior among retailers: What are the roles of service quality and satisfaction? *J. Acad. Mark. Sci.* **2009**, *37*, 440–454. [CrossRef]
84. Murfield, M.; Boone, C.A.; Rutner, P.; Thomas, R. Investigating logistics service quality in omni-channel retailing. *Int. J. Phys. Distrib. Logist. Manag.* **2017**, *47*, 263–296. [CrossRef]
85. Faul, F.; Erdfelder, E.; Buchner, A.; Lang, A.-G. Statistical power analyses using G* Power 3.1: Tests for correlation and regression analyses. *Behav. Res. Methods* **2009**, *41*, 1149–1160. [CrossRef]
86. Ringle, C.M.; Wende, S.; Becker, J.-M. SmartPLS 3. Boenningstedt: SmartPLS GmbH, 31 2015. 2015. Available online: http://www.smartpls.com (accessed on 20 October 2020).
87. Chin, W.W.; Marcolin, B.L.; Newsted, P.R. A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Inf. Syst. Res.* **2003**, *14*, 189–217. [CrossRef]
88. Anderson, J.C.; Gerbing, D.W. Structural equation modeling in practice: A review and recommended two-step approach. *Psychol. Bull.* **1988**, *103*, 411. [CrossRef]
89. Podsakoff, P.M.; MacKenzie, S.B.; Lee, J.-Y.; Podsakoff, N.P. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *J. Appl. Psychol.* **2003**, *88*, 879–903. [CrossRef]

90. Hair, J.; Anderson, R.; Tatham, B.R. *Multivariate Data Analysis*; Prentice Hall: Hoboken, NJ, USA, 1998.
91. Fornell, C.; Larcker, D.F. Evaluating structural equation models with unobservable variables and measurement Error. *J. Mark. Res.* **1981**, *18*, 39–50. [CrossRef]
92. Henseler, J.; Ringle, C.M.; Sarstedt, M. A new criterion for assessing discriminant validity in variance-based structural equation modeling. *J. Acad. Mark. Sci.* **2015**, *43*, 115–135. [CrossRef]
93. Hair, J.F.; Hult, G.T.M.; Ringle, C.M.; Sarstedt, M. *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*; Sage Publications: New York, NY, USA, 2021.
94. Kock, N. *WarpPLS 5.0 User Manual*; ScriptWarp Systems: Laredo, TX, USA, 2015.
95. Henseler, J.; Sarstedt, M. Goodness-of-fit indices for partial least squares path modeling. *Comput. Stat.* **2013**, *28*, 565–580. [CrossRef]
96. Shao, G. Understanding the appeal of user-generated media: A uses and gratification perspective. *Internet Res.* **2009**, *19*, 7–25. [CrossRef]
97. Wang, G.; Wang, J.; Ma, X.; Qiu, R.G. The effect of standardization and customization on service satisfaction. *J. Serv. Sci.* **2010**, *2*, 1–23. [CrossRef]
98. Jin, B.; Yong Park, J.; Kim, J. Cross-cultural examination of the relationships among firm reputation, e-satisfaction, e-trust, and e-loyalty. *Int. Mark. Rev.* **2008**, *25*, 324–337. [CrossRef]
99. Helm, S.; Eggert, A.; Garnefeld, I. Modeling the impact of corporate reputation on customer satisfaction and loyalty using partial least squares. In *Handbook of Partial Least Squares*; Springer: Berlin/Heidelberg, Germany, 2010; pp. 515–534.
100. Sombultawee, K.; Wattanatorn, W. The impact of trust on purchase intention through omnichannel retailing. *J. Adv. Manag. Res.* **2022**, *19*, 513–532. [CrossRef]
101. Karacali, O.; Salman, G.G. Application and Integration of Omnichannel Decisions to Customer Relationship Management. In *Managing Customer Experiences in an Omnichannel World: Melody of Online and Offline Environments in the Customer Journey*; Emerald Publishing Limited: Bradford, UK, 2020.
102. Shi, S.; Wang, Y.; Chen, X.; Zhang, Q. Conceptualization of omnichannel customer experience and its impact on shopping intention: A mixed-method approach. *Int. J. Inf. Manag.* **2020**, *50*, 325–336. [CrossRef]
103. Hsia, T.-L.; Wu, J.-H.; Xu, X.; Li, Q.; Peng, L.; Robinson, S. Omnichannel retailing: The role of situational involvement in facilitating consumer experiences. *Inf. Manag.* **2020**, *57*, 103390. [CrossRef]
104. Venkatesh, V.; Thong, J.Y.L.; Xu, X. Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology. *MIS Q.* **2012**, *36*, 157–178. [CrossRef]
105. Bhattacharya, S.; Sharma, R.P.; Gupta, A. Does e-retailer's country of origin influence consumer privacy, trust and purchase intention? *J. Consum. Mark.* **2023**, *40*, 248–259. [CrossRef]
106. De Canio, F.; Fuentes-Blasco, M.; Martinelli, E. Extrinsic motivations behind mobile shopping: What drives regular and occasional shoppers? *Int. J. Retail Distrib. Manag.* **2022**, *ahead-of-print*. [CrossRef]
107. Blaise, R.; Halloran, M.; Muchnick, M. Mobile commerce competitive advantage: A quantitative study of variables that predict m-commerce purchase intentions. *J. Internet Commer.* **2018**, *17*, 96–114. [CrossRef]