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Title: Showrooming Behavior, Omnichannel Self-Efficacy, and Perceived Channel Integration as Antecedents of Revisit Intention

Year: 2023

Version: Published version

Please cite the original version:

Holkkola, M., Nyrhinen, J., Makkonen, M., Frank, L., Karjaluoto, H., & Wilska, T.-A. (2023). Showrooming Behavior, Omnichannel Self-Efficacy, and Perceived Channel Integration as Antecedents of Revisit Intention. In MCIS 2023 : Proceedings of the 15th Mediterranean Conference on Information Systems (Article 6). Association for Information Systems. https://aisel.aisnet.org/mcis2023/6/

2023

Showrooming Behavior, Omnichannel Self-Efficacy, and Perceived Channel Integration as Antecedents of Revisit Intention

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SHOWROOMING BEHAVIOR, OMNICHANNEL SELF-EFFICACY, AND PERCEIVED CHANNEL INTEGRATION AS ANTECEDENTS OF REVISIT INTENTION

Research full-length paper

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Abstract

This study investigates how consumers' omnichannel self-efficacy and showrooming behavior affect the perceived channel integration of a retailer and how perceived channel integration affects consumers' revisit intention. In this study, showrooming behavior includes consumers first engaging with products in brick-and-mortar (B&M) stores and then searching for additional information for potential purchases online on the same or a competitive retailer's online channels. Because competitive showrooming is common, B&M retailers have an interest in integrating their channels to offer a seamless shopping experience for showroomers to attract and retain possible customers. We hypothesize that omnichannel self-efficacy positively influences consumers' showrooming behavior and the perceived channel integration of offline and online channels. We also hypothesize that showrooming behavior positively affects perceived channel integration and, ultimately, perceived channel integration positively affects consumers' revisit intention. The survey data consists of 1,028 Finnish omnichannel consumers. We used partial least squares structural equation modeling to test our hypotheses, which were all supported. As a novel finding, omnichannel self-efficacy and showrooming behavior are found as antecedents of perceived channel integration. The practical implications are that B&M retailers with an omnichannel-skilled customer base should link their online channels in their B&M stores to reduce competitive showrooming.

Keywords: Omnichannel, Cross-channel, Showrooming, Omnichannel self-efficacy, Multichannel self-efficacy, Channel integration, Revisit intention, Loyalty, Brick-and-mortar store, Research shopping.

1   Introduction

Today's consumer behavior and retail environment have changed rapidly due to the emergence of electronic commerce (e-commerce) and mobile commerce (m-commerce), which have been studied from, for instance, human-computer interaction (HCI) and omnichannel perspectives. Omnichannel is defined as "the synergetic management of the numerous available channels and customer touchpoints, in such a way that the customer experience across channels and the performance over channels is optimized." (Verhoef et al., 2015, p. 176). For retailers, offering multiple channels to collect information and make purchases is important because today's consumers are using multiple channels during their customer journey to gain information, compare the products, and make purchases (Paananen et al., 2022; Wilska et al., 2023). This kind of intensive information search in multiple channels is called research shopping (Verhoef et al., 2007), and showrooming behavior is a common form of it. In this study, our aim is to investigate consumers' showrooming behavior in relation to omnichannel self-efficacy and perceived channel integration, as well as perceived channel integration as an antecedent of revisit intention.

Showrooming behavior refers to consumers gathering information by touching and feeling in offline channels and comparing the products or doing the purchase on online channels (Fiestas and Tuzoiv, 2021; Grewal et al., 2016; Rapp et al., 2015). According to iVend's Global Path to Purchase Survey, more than 60% of shoppers are estimated to use their smartphone while shopping in B&M stores (Schneider and Zielke, 2020). Additionally, searching for information online and/or making a purchase online after one's brick-and-mortar (B&M) store visit can be counted as showrooming (Li et al., 2018). Showroomers have traditionally been blamed for taking advantage of B&M store retailers by free-riding (Daunt and Harris, 2017; Jing, 2018; Sit et al., 2018) and causing losses in sales (Fassnacht et al., 2019) and resources (Rapp et al., 2015). For example, the showrooming phenomenon negatively affects B&M store personnel's performance and self-efficacy (Rapp et al., 2015). Also, according to Spaid et al. (2019), it is common that showroomers use a competing retailer's channels and are irrespective of the change of retailer (Grewal et al., 2016). However, not all showrooming takes place in competitive retailers' channels (Neslin and Shankar, 2009; Gensler et al., 2017). Whether the showroomers go cross-channel while their B&M visit or afterward, they may also use the same retailers' online channels. This is also referred to as loyal showrooming (Schneider and Zielke, 2020).

As B&M store retailers have noticed today's consumers' omnichannel preferences (Briedis et al., 2020), they have started to integrate their B&M stores with online channels, for example by providing QR codes (Holkkola et al, 2023; Paananen et al., 2023), tablets (Weber and Maier, 2020) and mobile applications (Zimmermann et al., 2022) for in-store usage. This kind of channel integration with the retailer's own online channels aims to create immersive and customized customer experiences (Briedis et al., 2020; Zimmermann et al., 2022) and to retain the showroomers in the retailers' own channels. In addition to providing additional digital information, B&M stores have improved their channel integration through consistent prices, performance, and customer service throughout all channels (Zhang et al., 2018). For instance, personal customer service is important for consumers also on online stores (Holkkola et al., 2022a). Also, cross-channel delivery options, such as "click and collect" ordering from an online store to a B&M store and the home delivery option from a B&M store, have become important for many consumers (Weber and Maier, 2020). Thus, also research on showrooming behavior, channel integration, and how to retain showroomers loyal has become topical.

Although showrooming has gained attention in information systems (IS) and marketing research, there are multiple research gaps in the literature. Firstly, to our best knowledge, there is a lack of understanding of the association between showrooming behavior and perceived channel integration as well as omnichannel self-efficacy and perceived channel integration. Secondly, the prior literature on showrooming antecedents, especially customer-related antecedents (Sahu et al., 2021), remains scarce (Daunt and Harris, 2017). Similarly, Weber and Maier (2020) call for research on showroomers'

background information, such as personality, instead of the motivations for showrooming that have already been studied more closely. Thirdly, Gensler et al. (2017) are calling for more research on the showrooming phenomenon in general. Similarly, Schneider and Zielke (2020) call for more research on showrooming and emphasize the importance of helping B&M retailers to retain potential customers loyal. Therefore, in this study, our aim is to investigate how consumers' omnichannel self-efficacy affects showrooming behavior and how omnichannel self-efficacy and showrooming behavior affect the perceived channel integration of a retailer. We focus on consumers' showrooming behavior and perceived channel integration by creating a model that considers these research gaps. We test omnichannel self-efficacy as a customer-related antecedent of showrooming behavior and study successful channel integration's influence on revisit intention.

In the subsequent section, we discuss the theoretical background and then present our conceptual framework and hypotheses. In the third section, we present the data and methods. Next, we report the results of our analysis. Lastly, the implications and the limitations of the study and future research suggestions are discussed.

2 Theoretical Background

2.1 Literature Review

Showrooming behavior can be classified as omnichannel or cross-channel (e.g., Heitz-Spahn, 2013) behavior and as one form of research shopping (Neslin and Shankar, 2009). Rapp et al. (2015) define it as "a practice whereby consumers visit a brick-and-mortar retail store to (1) evaluate products or services first-hand and (2) use mobile technology while in-store to compare products for potential purchase via any number of channels". Due to the development of smartphones and other mobile devices, consumers can showroom simultaneously while visiting a B&M store, as well as also after the B&M store visit (Li et al., 2018). Showrooming is common for all age groups, except for showrooming simultaneously while visiting a B&M store, which is common only for consumers under 50 years of age (Holkkola et al., 2022b). Arora et al. (2022) have found that intentional showrooming is affected by consumers' skills. In addition to skills, self-efficacy has proved to be a useful factor in predicting consumer behavior (Khalifa and Ning Shen, 2008) and is also easier to measure than actual skills.

Self-efficacy in today's omnichannel environment has been identified as an important factor in consumer behavior in many ways. Originating from Bandura's (1986) social cognitive theory, self-efficacy describes how well an individual believes to perform on something, for example, a technology-related task (McDonald and Siegall, 1992). Self-efficacy can be general or task-related self-efficacy and, in general, one's self-efficacy has been positively associated with their outcome expectancies (Luszczynska et al., 2005). In the online shopping context, Pavlou and Fygenson (2006, p. 119) define self-efficacy as "consumers' judgments of their own capabilities to get product information and purchase products online". Consumers' self-efficacy has major consequences for retailers because it is suggested to increase consumers' loyalty and revisit intentions. For instance, Thakur (2018) found that self-efficacy influences consumers' usage continuance intentions of mobile shopping applications. In addition, omnichannel skills are important in choosing the best channel or channel combination (Chiu et al., 2011). Omnichannel skills are also important in terms of being capable to use different channels in the first place, as consumers' online and mobile device skills may differ due to their different usage features, such as a mouse and keyboard versus a touchscreen (Keith et al., 2015). Utilizing online channels becomes more meaningful for consumers when, in addition to consumers having sufficient self-efficacy and skills, the retailer has integrated the channels consistently and seamlessly.

Channel integration is defined by the retailer's capability of providing consumers with seamless shopping experiences across channels (Sousa and Voss, 2006). When studying consumers' evaluations of a

retailer's channel integration, the concept of perceived channel integration is used. According to Lee et al. (2019) and Zhang et al. (2018), perceived channel integration consists of the integration of customer service, information access, order fulfillment, product and price, promotion, and transaction information. Traditionally, the important channels from the showrooming perspective have been the B&M store as an offline channel and the online store as an online channel. Hossain et al. (2020) suggest that channel integration consists of channel-service configuration, content consistency, process consistency, and assurance quality. The benefits of channel integration for the consumer include the possibility to use multiple touchpoints and customized services (Oh et al., 2012). Also, in the omnichannel era, successful channel integration may help consumers with their psychological needs for convenience, flexibility, self-control, and avoiding uncertainty (Li et al., 2018). The consumers' ability to utilize multiple channels is giving them a sense of power and control that lets them enjoy the benefits of each channel (Popa et al., 2019) by empowering their relationships with the firms (Verhoef et al., 2007). This leads to satisfaction and feelings of smart shopping (Rodríguez-Torrico et al., 2017; Flavián et al., 2020). Using different technologies in B&M gives consumers a more active role in their shopping experience (Collin-Lachaud and Vanheems, 2016), because, due to these technologies, the presence of store personnel is not needed in choosing and buying the products (Meuter et al., 2000). Perceived channel integration is suggested to be important for consumers of all B&M store types, especially for department store and hypermarket customers (Lim et al., 2022). Perceived channel integration in all phases of shopping, also including the post-purchase phase, is a means to reduce competitive showrooming (Weber and Maier, 2020).

2.2   Conceptual Framework and Hypotheses

Although the beliefs underlying self-efficacy may differ from consumers' real abilities, we use self-efficacy in our model because it has been found as a good predictor of actual behavior in prior mobile shopping studies (Khalifa and Ning Shen, 2008). More specifically, omnichannel self-efficacy is used in the cross-channel behavior context of our study. In related prior literature, other similar concepts have been used. Multichannel self-efficacy has been used to study a consumer's ability and confidence to use both online and offline channels in information search and purchasing (Chiu et al., 2011), whereas omnichannel self-efficacy includes the ability and confidence to use these channels simultaneously. For instance, Sun et al. (2020) have studied omnichannel self-efficacy as a factor agent for consumers' decision-making processes in an omnichannel environment. In the online shopping context, Zha et al. (2013) found that information search-related self-efficacy has a positive effect on perceived decision quality, and a negative moderating effect on web advertisement usage on one's purchase decision, meaning that confident research shoppers could likely be actively, not passively, searching for best offers.

Additionally, Internet shopping self-efficacy's effect on online shopping intention has been studied, resulting in indirect positive influence findings (Faqih, 2013), meaning that self-efficacy influences consumers' behavioral intention. Hernandez et al. (2009) also found that self-efficacy explains online shoppers' present behavior as well as future intentions. In the context of self-service technology usage, Wang et al. (2013) found that, especially when a consumer is new to these technologies, the consumer's self-efficacy increases their use of the technologies. Also, self-efficacy as an ability belief is suggested to facilitate the formation of consumers' omnichannel habits (Sun et al., 2020). Chang et al. (2017) found that high mobile shopping self-efficacy pushed consumers to switch from offline channels to mobile channels. Makkonen et al. (2022) found that omnichannel self-efficacy not only had a direct effect but also acted as a mediator for the indirect effects of general online shopping skillfulness and mobile online shopping skillfulness on consumers' showrooming behavior. Although they found the effect of omnichannel self-efficacy to be negative while controlling the effects of general online shopping skillfulness and mobile online shopping skillfulness on showrooming behavior, they found this effect to be positive without such controls. This supported the findings regarding the attitude to-

ward showrooming by Arora et al. (2017). Because of these prior findings on self-efficacy's effect on online and omnichannel shopping intention and behavior, as well as on utilizing new technologies in B&M stores, we hypothesize as follows:

H1: Omnichannel self-efficacy positively affects showrooming behavior.

With the concept of channel integration, Sousa and Voss (2006) refer to the extent and transparency of different channels for consumers to carry out their acts. According to Shen et al. (2018), channel integration quality facilitates perceived fluency in consumers' omnichannel experiences. Yang et al. (2011) and Makkonen et al. (2023) have studied the factors behind offline consumers' adaptation and intention to use also online channels of the same company. Yang et al. (2011) found that the perceived quality of the offline channel also affects the perceived quality of the online channel and that consumers' self-efficacy for change moderated this relationship. Thus, they suggest that enhancing the service quality of the offline channel will enhance the perceived quality in both offline and online channels. Also, the perceived entitativity of the channels encouraged consumers to shift to online channels of the same service provider and enhanced the effect of cross-channel synergies (Yang et al., 2011). Therefore, the B&M store as an offline channel affects how consumers also perceive the online channel. To evaluate the online and mobile channels of the same retailer (for instance, in the context of loyal showrooming), consumers still need to have the abilities and confidence to use them in the first place. As presented in the reasoning of H1, we believe that omnichannel self-efficacy positively affects showrooming and using online channels and B&M store technologies. Self-efficacy has been found to affect consumers' intentions and attitudes toward utilizing integrated channels. For example, Youn et al (2021) have found that fashion consumers' self-efficacy of channel switching positively affected their intention to switch from offline to online channels during Covid-19. Also, Ramkumar and Woo (2018) found that online transaction self-efficacy increased positive attitudes toward ordering fashion products online. Weber and Maier (2020) found that delivery options that cross the boundaries of different channels are appreciated by consumers. Switching to online channels requires sufficient channel integration from the retailer's channels, and self-efficacy, which is associated with perceived ease of use (Ong, et al., 2004), may help consumers in being able to perceive the existing channel integration. Thus, we hypothesize as follows:

H2: Omnichannel self-efficacy positively affects perceived channel integration.

Consumers' showrooming behavior is one form of research shopping where consumers utilize multiple channels in different phases of their customer journey (Weber and Maier, 2020). Showrooming behavior is not inherently free-riding as consumers may use multiple channels of the same retailer (Neslin and Shankar, 2009; Gensler et al., 2017; Schneider and Zielke, 2020). We assume that the consumers who utilize both the B&M store and online store of the same retailer become more aware of the retailers' channel integration. The channel integration includes, for example, price, customer service, and order fulfillment (Zhang et al., 2018), of which consistencies are important for consumers. The actual level of channel integration is not necessarily the same as the perceived level, but to perceive the channel integration as successful, consumers need to have utilized multiple integrated channels. This may have happened on separate occasions, but the level of integration can be best evaluated if one has used the channels consecutively and in a comparing way, as in showrooming or its so-called opposite, webrooming (i.e. searching for information on online channels and then purchasing in offline channels). The offline and online channels may be perceived as more integrated if the consumer has been encouraged to showroom in the B&M store by in-store omnichannel elements (Parise et al., 2016). Therefore, we hypothesize as follows:

H3: Showrooming behavior positively affects perceived channel integration.

Channel integration has been found to enhance both customer satisfaction and retailers' performance (van Birgelen et al., 2006). It is suggested in prior studies that successful integration of the retail channels will ultimately lead to increased loyalty among customers (Yang et al., 2017; Zhang et al., 2018). Customer loyalty can be measured by revisit intention, which is a behavioral aspect of customer loyalty (Bowen and Chen, 2001). Yang et al. (2017) found that perceived channel integration indirectly increases repurchase intention in both online and offline environments. Gibson et al. (2022) have studied how omnichannel features in B&M convenience stores affect customer satisfaction and revisit intention. Sun et al. (2020) found that the quality of channel integration affects consumers' omnichannel habits and omnichannel satisfaction. The omnichannel features are aiming to provide a seamless experience between the channels, as omnichannel is defined as "the synergetic management of the numerous available channels and customer touchpoints, in such a way that the customer experience across channels and the performance over channels is optimized." (Verhoef et al., 2015, p. 176). In the study by Gibson et al. (2022), omnichannel features were found to positively affect revisit intention with customer satisfaction as a moderator. Also, Zhang et al. (2018) suggest that channel integration increases customer patronage intention. Additionally, Diallo and Collin-Lachaud (2019) have studied technology-human interaction and customers' loyalty and found that using technologies perceived as pleasant, such as smartphones, in B&M stores positively affects retail patronage intention, with customer satisfaction as a mediator. More specifically, B&M store technology pleasantness is suggested to increase consumers' store revisit intention (Diallo and Collin-Lachaud, 2019). Thus, we assume that the possibility to pleasantly integrate online channels into one's B&M store visit increases customers' loyalty, which is concretized as revisit intention. Accordingly, we hypothesize as follows:

H4: Perceived channel integration positively affects revisit intention.

Additionally, socio-demographic factors have been found to affect consumers' omnichannel behavior (Holkkola et al., 2022b; Verhoef et al., 2015). Therefore, we control the research model for the effects of a consumer's age, gender, and personal income on the revisit intention with an omnichannel retailer, which is the outcome variable of our model. Firstly, age has been found to moderate the association between satisfaction and loyalty, which was found stronger for older consumers (Homburg and Giering, 2001; Henrique and Matos, 2015). Secondly, according to Mittal and Kamakura (2001), among men and women with the same level of customer satisfaction, the likelihood of repurchasing was higher for women. On the other hand, men were found to be more inclined to make another purchase if satisfied with a previous purchase (Mittal and Kamakura, 2001; Henrique and Matos, 2015). Thirdly, the association between satisfaction and customer loyalty was found to be weaker for those with higher incomes. This is likely because people with higher income are generally believed to have attained higher levels of education (Farley, 1964) and, thus, should feel more at ease coping with and relying on new information inputs because of their cognitive abilities (Homburg and Giering, 2001).

The research model (Figure 1) hypothesizes that omnichannel self-efficacy is linked to perceived channel integration both directly and indirectly through showrooming behavior. Moreover, perceived channel integration is linked to revisit intention. Finally, we controlled the model for the effects of a respondent's age, gender, and personal income.
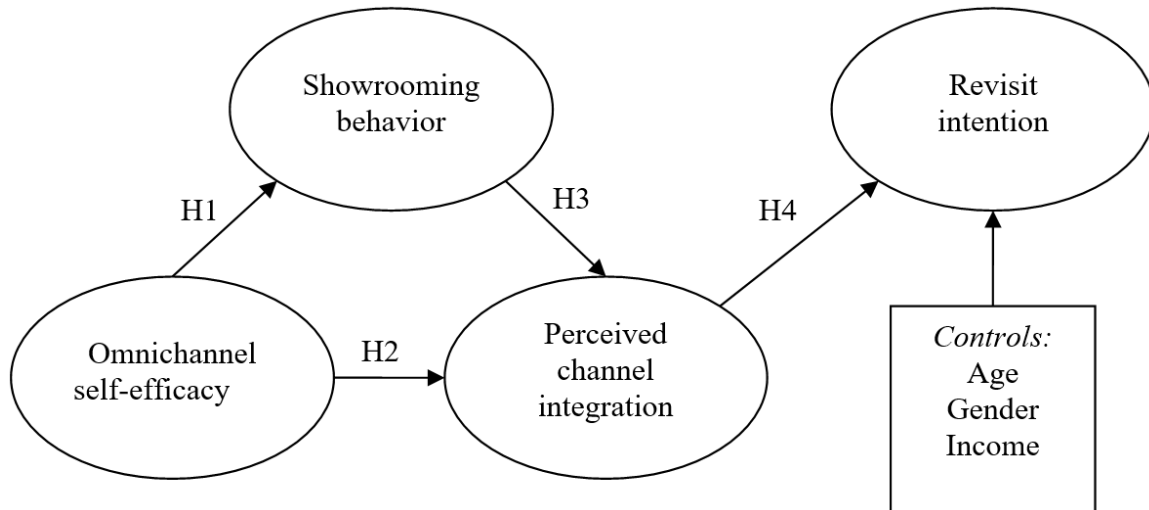
Figure 1. Theoretical Framework and Hypotheses

3   Methods and Materials

3.1   Sample and Data Collection

The data collection was carried out by using a structured online survey in 2021. The dataset ranged in age from 18 to 75 and originated from Finland (n = 1,028; 51.5% female; SD = 15.67). The respondents were selected from a large online panel with stratified sampling based on quotas in terms of age, gender, and living area (metropolitan capital region vs. provincial/rural area). The respondents within each quota were selected randomly. The respondents had visited both the online store and the B&M store of a chosen retailer and filled out the survey according to their experience with that retailer. In Table 1, respondent characteristics and the corresponding numbers of the Finnish population are displayed.

	Sample (N)	Sample (%)	Finland (%)
Gender			
Male	497	48.5	50.3
Female	527	51.5	49.7
Missing	4	–	–
Age			
18–29 years	191	18.6	19.3
30–39 years	213	20.7	18.1
40–49 years	194	18.9	16.9
50–59 years	198	19.3	17.6
60–75 years	232	22.6	28.1
Personal taxable income/year			
Under 20,000 €	305	34.2	39.4
20,000–39,999 €	349	39.2	35.7
40,000 € or over	237	26.6	25.0
Missing	137	–	–

Table 1. Sample statistics and the reference statistics of the Finnish population

3.2 Measures

The measures used in the study comprised of 24 items that reflectively measured four latent constructs. All the measures were drawn from prior literature. We adopted the multichannel self-efficacy scale from Chiu et al. (2011) to study omnichannel self-efficacy. Omnichannel is a more recent concept reflecting the seamless integration of channels and thus representing the modern shopping environment better. For example, showrooming is one form of omnichannel consumer behavior, as consumers are acting in several integrated channels, often simultaneously (Mali et al., 2022). The measures for showrooming behavior (SRB) were adapted from Li et al. (2018). The measures for revisit intention were drawn from Han and Hyun (2015) and modified to fit the research context. Channel integration was measured with items adapted from Lee and Kim (2010) and covered consistency and reciprocity between channels and integration on selection. The standard seven-point Likert scale (1 = strongly disagree … 7 = strongly agree) was used as the measurement scale for all the aforementioned items. Of the three control variables, gender was measured with a dichotomous scale (0 = male and 1 = female), age with a categorical scale comprising of seven age categories, and income with a categorical scale comprising of seven income categories. To avoid forced responses, the respondents also had the option not to respond to a specific item, which resulted in a missing value.

3.3 Non-response Bias and Common Method Bias

Non-response bias was assessed by comparing the sample to the population demographics of people aged 18–75 years in Finland. The sample distributions of age, gender, and region were generally within the margin of error when compared to the overall population (see Table 1). Therefore, non-response bias is unlikely an issue in our dataset.

The likelihood of common method bias (CMB) influencing the results was mitigated through several procedures. For example, the questionnaire items were mixed, we strived to mitigate item ambiguity, and the respondents' identities were kept confidential. In addition, the marker variable approach was used to assess the effects of CMB (e.g., Lindell and Whitney, 2001; Malhotra et al., 2006). A theoretically unrelated scale "Fantasizing" (O'Guinn and Faber, 1989) was used as a marker variable. The highest correlation between "Fantasizing" and the latent constructs was 0.29, which was below the level that would notably affect the studied structural relationships (Malhotra et al., 2006). Thus, CMB is unlikely a concern in our dataset.

3.4 Data Analysis

We used partial least squares structural equation modeling (PLS-SEM) with SmartPLS 3.2.7 to test our hypotheses. When conducting PLS-SEM, we carefully followed the recent guidelines by Hair and Alamer (2022). For example, we used mode A as the indicator weighting mode of all the constructs, path weighting as the weighting scheme, +1 as the initial weights, and $< 10^{-7}$ as the stop criterion in model estimation, whereas the statistical significance of the model estimates was tested by using bootstrapping with 5,000 subsamples. The potential missing values were handled by using mean replacement.

4 Analysis and Results

4.1 Assessment of Measurement Models

Because the standardized factor loadings were all above the threshold of .70 (see Table 2) and the composite reliabilities (CR) were all above the threshold of .70 (see Table 2), all the constructs and items demonstrated good reliability (Hair et al., 2017). Also, all variance inflation factors (VIF) of the

constructs were below the threshold of five, which indicated that there were no collinearity problems in the constructs (Hair et al., 2011). To assess the convergent and discriminant validity of the constructs, the Fornell-Larcker (1981) criterion was used (i.e., the average variance extracted (AVE) of each latent variable should be above the threshold of 0.5 and each latent variable should have a square root of AVE that is above its absolute correlations with the other latent variables). This criterion was met by all the constructs (see Table 3). As additional support for discriminant validity, the heterotrait-monotrait (HTMT) ratio was also examined. HTMT ratios varied between .035 and .726, which is below the threshold of .90 (Henseler et al., 2015).

| Wording	Mean	Standard deviation	Factor loading
Omnichannel self-efficacy			
I am confident in my ability to use both online and offline channels while shopping.	5.975	1.165	.901***
I am able to get service on both online and offline channels.	5.718	1.208	.883***
I am able to utilize both online and offline channels in the process of purchase.	5.772	1.297	.921***
I believe I am good at evaluating the choices of online and offline channels while shopping.	5.780	1.252	.896***
Channel integration			
The store provides a consistent appearance between the two channels (i.e., physical and online stores).	5.361	1.365	.770***
The store provides consistent product information between the two channels.	5.464	1.383	.834***
The store provides consistent promotional information between the two channels.	5.412	1.349	.851***
The store provides consistent pricing policies between the two channels.	5.567	1.401	.792***
The store provides a consistent level of customer service between the two channels.	5.149	1.391	.777***
The online store of this retailer offers useful information on the B&M stores (location, visiting hours).	5.669	1.278	.814***
I can physically examine the products in-store and then go searching for additional information on products on the retailer's online store.	5.458	1.394	.829***
I can browse the products on the online store and then go physically examine the products in the retailer's physical store.	5.620	1.344	.801***
The store allows me to choose a way of returning the merchandise (Post, UPS, DHL, etc.).	5.206	1.489	.717***
The store allows me to arrange delivery options (delivery time, method, point).	5.056	1.460	.708***
The store allows me to arrange various service options (payment method, customer service).	5.166	1.409	.769***
Revisit intention			
I am willing to revisit this retailer's physical and online stores in the future.	5.911	1.216	.909***
I plan to revisit this retailer's physical and online stores in the future.	5.692	1.328	.925***
I hope to revisit this retailer's physical and online stores in the future.	4.950	1.568	.791***
Showrooming behavior			
I often use mobile devices to find more information about products in the store.	4.997	1.849	.926***
I use mobile devices to find better prices for products online.	4.933	1.873	.914***
I use mobile devices to look for information about products while still in the store.	4.147	1.991	.802***

Table 2. Item statistics

Construct	CR	AVE	1	2	3	4	5	6	7
Omnichannel self-efficacy (1)	.945	.810	.900						
Showrooming behavior (2)	.913	.779	.365	.882					
Perceived channel integration (3)	.947	.622	.535	.271	.788				
Revisit intention (4)	.909	.769	.422	.171	.655	.877			
Age (5)	n/a	n/a	-.113	-.354	-.064	-.058	n/a		
Gender (6)	n/a	n/a	.103	.112	.060	.106	-.175	n/a	
Income (7)	n/a	n/a	.057	.089	.032	-.018	.096	-.155	n/a

Table 3. Construct statistics

4.2   Assessment of Structural Model

The results of model estimation in terms of the standardized regression coefficients and their statistical significance, Cohen's f^2, and the proportions of explained variance (R^2) are reported in Figure 2.
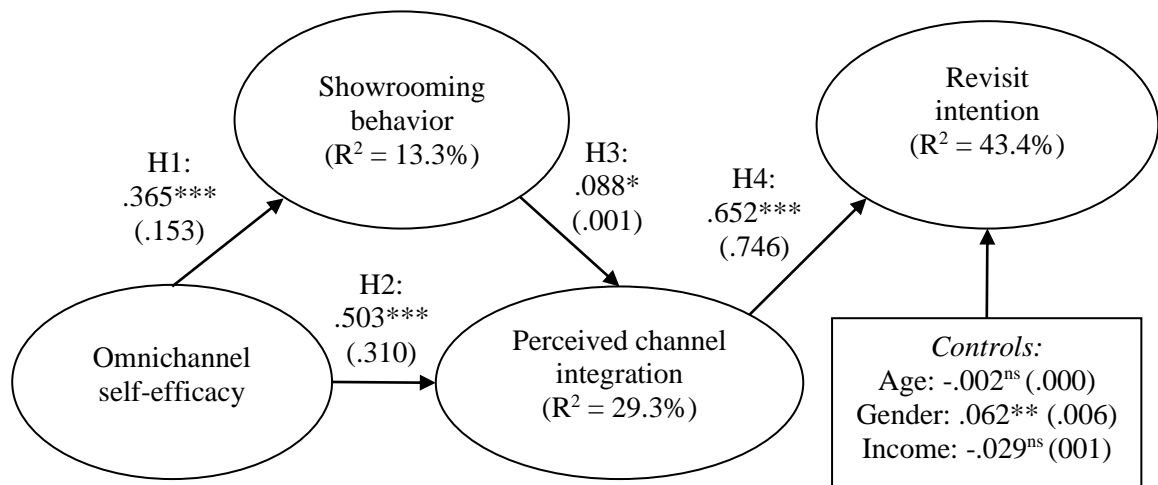
Notes: *** = p < .001, ** = p < .010, * = p < .050, ns=not significant;

f^2 values in brackets

Figure 2. Results of hypotheses testing

As Figure 2 presents, the model accounted for 13.3% of the variance in showrooming behavior, 29.3% of the variance in perceived channel integration, and 43.4% of the variance in revisit intention. The data supported all our hypotheses (Table 4). With respect to H1, omnichannel self-efficacy was found to have a positive effect on showrooming behavior ($\beta = .365$, $p < .001$). Omnichannel self-efficacy was also found to have a positive effect on perceived channel integration ($\beta = .503$, $p < .001$), which supported H2. Moreover, showrooming behavior was found to have a positive effect on perceived channel integration ($\beta = .088$, $p < .050$), thus supporting H3. Finally, with respect to H4, perceived channel integration was found to have a positive effect on revisit intention ($\beta = .652$, $p < .001$). Of the controls, only gender had a statistically significant effect on revisit intention as women were found to

have higher revisit intention than men did. However, the effect was found considerably smaller than the effects of omnichannel self-efficacy, showrooming behavior, and perceived channel integration.

We also tested for mediation and found that there was a positive indirect effect of omnichannel self-efficacy on perceived channel integration via showrooming behavior ($\beta = .032$, $p < .010$), with the total effect of omnichannel self-efficacy on perceived channel integration also being positive ($\beta = .535$, $p < .001$). Therefore, the effect of omnichannel self-efficacy on perceived channel integration is partially mediated by showrooming behavior. In addition, we found positive indirect effects of omnichannel self-efficacy on revisit intention via perceived channel integration ($\beta = .328$, $p < .001$) and both showrooming behavior and perceived channel integration ($\beta = .021$, $p < .050$) as well as a positive indirect effect of showrooming behavior on revisit intention via perceived channel integration ($\beta = .057$, $p < .010$), with the total effect of omnichannel self-efficacy on revisit intention also being positive ($\beta = .349$, $p < .001$). Therefore, the effects of both omnichannel self-efficacy and showrooming behavior on revisit intention are fully mediated by perceived channel integration.

5   Discussion and Conclusion

5.1   Discussion and Theoretical Implications

The aim of this study was to investigate how consumers' omnichannel self-efficacy affects showrooming behavior and perceived channel integration and how showrooming behavior affects the perceived channel integration of a retailer. By doing so, our objective was to address the research gaps in the phenomenon of showrooming and to gain information on whether successful channel integration of B&M stores and online channels could increase consumers' loyalty, for example by reducing competitive showrooming on competitive retailers' online channels. Therefore, we also investigated if perceived channel integration increases consumers' revisit intention. We used survey data from 1,028 Finnish consumers and partial least squares structural equation modeling to test our hypotheses. Supporting our hypotheses, all the effects were found positive. The findings contribute to the literatures on consumer technology use, omnichannel behavior, B&M stores' online channel interlinkages, and omnichannel customers' loyalty intentions.

In this study, we made two main findings. Firstly, this study makes a novel finding in presenting omnichannel self-efficacy and showrooming behavior as antecedents of perceived channel integration. In prior research, perceived channel integration has been studied mainly as a predictor variable but not as an outcome variable. Our findings support Yang et al.'s (2011) findings on channel quality perceptions and extend them with the omnichannel perspective of simultaneous and seamless usage of offline and online channels. Based on our findings, we present that consumers' abilities and confidence in using offline and online channels simultaneously can be utilized in promoting loyal showrooming in the same retailer's online and mobile channels. In light of our findings, the consumers are more probable to enjoy the perceived fluency produced by channel integration (Shen et al., 2018) if they have sufficient omnichannel skills and/or if they utilize these channels by showrooming. To retain the showroomers in the retailers' own channels and to offer them seamless and satisfying shopping experiences (Briedis et al., 2020), we propose that consumers could be encouraged to showroom and enjoy the channel integration of the retailer. This can be done by providing omnichannel elements, such as QR codes (Holkkola et al., 2023) and tablets (Weber and Maier, 2020), linked to a retailer's online and mobile channels in the retailer's B&M stores (Parise et al., 2016). Because today's consumers prefer omnichannel experiences (Briedis et al., 2020) and especially younger consumer generations are eager to showroom while visiting B&M stores (Holkkola et al., 2022b), retailers should utilize this behavior and direct showroomers to their own channels. Thus, channel integration is noticed by consumers with omnichannel skills and, according to our findings, increases loyalty, such as revisit intention.

Secondly, the finding on omnichannel self-efficacy's positive influence on showrooming behavior answers Daunt and Harris's (2017) call for research on typical showroomers' personalities and abilities. It is in line with prior findings that different kinds of self-efficacies increase the usage or usage intention of offline (Wang et al., 2013), online (Faqih, 2013), and mobile channels (Chang et al., 2017). However, these prior findings studied the use of channels as their own separate channels. Thus, this study's omnichannel perspective, which considered seamless and simultaneous usage of channels, brings more topical knowledge and is consistent with Makkonen et al. (2022). Also, on a more general level, our findings are in line with Sun et al.'s (2020) findings that omnichannel self-efficacy affects omnichannel habit formation. Considering showrooming as technology usage in B&M stores, our findings are in line with Wang et al.'s (2013) B&M self-service technology usage, which also requires self-efficacy from consumers. Accordingly, we present that higher omnichannel skills and confidence predict consumers' showrooming behavior which, in turn, enables them to enjoy the quality of channel integration.

In addition, our finding that perceived channel integration increases consumers' revisit intention implies that the main findings are important and beneficial for B&M retailers. To increase today's and tomorrow's consumers' loyal behaviors, we present that channel integration and its antecedents are important factors. Channel integration quality facilitates perceived fluency in consumers' omnichannel experiences (Shen et al., 2018), and creating these kinds of seamless experiences is at the heart of omnichannel. Thus, consumers' omnichannel skills and perceiving channel integration through loyal showrooming will ultimately result in customer loyalty.

To conclude, this study addressed the call for research on showrooming (Schneider and Zielke, 2020) and its customer-related antecedents (Daunt and Harris, 2017). As a novel finding, our findings show that consumers' omnichannel self-efficacy enhances the likelihood that they perceive channel integration positively. This effect is partially mediated by showrooming behavior, which shows that if consumers engage in omnichannel behavior in-store, they are more likely to perceive the benefits of channel integration. In addition, in line with previous studies (e.g., Yang et al., 2017; Sun et al., 2020; Gibson et al., 2022), our findings further emphasize how channel integration enhances customer loyalty if customers perceive that the channels are integrated seamlessly. Lastly, we find that even if differing from one's actual abilities, self-efficacy predicts the actual behavior (Khalifa and Ning Shen, 2008) also in the showrooming context.

5.2   Practical Implications

The practical implications of this study are that the omnichannel system of a retailer benefits especially those consumers who have adopted using online and mobile channels as part of their shopping behavior. The findings highlight the importance of the seamless integration of online and offline channels. This is especially important for B&M retailers and their channel integration. Despite trying to prevent the B&M store customers from using their smartphones while shopping, retailers should have other means to try to ensure that these showroomers remain loyal to them. Our findings suggest that designing the online store and the B&M store consistent with each other is important and can be done by designing the services, such as offers and customer service, as consistent. The online store interface should also be designed to be consistent with the B&M store by its atmosphere (Lee and Kim, 2010).

Specifically, the findings highlight that channel integration benefits consumers who are confident to shop across multiple channels. Conversely, omnichannel marketing is evidently less effective for those consumers who are less capable to utilize digital technologies in their consumption. Therefore, companies should take the digital skills of their customer base into consideration when planning their marketing channel strategies. Additionally, because consumers with high self-efficacy in information search are less prone to web advertisements (Zha et al., 2013), we suggest that channel integration could even be extended further than a retailer's own channels to prevent losses of sales from confident

and skilled consumers. For instance, to prevent competitive showrooming from causing losses of sales, B&M retailers could offer a guarantee for the price of the cheapest price they can find.

5.3 Limitations and Future Research

This study has certain limitations that open avenues for further research. First, the use of cross-sectional data limits causal implications to be drawn. Future research could enhance our framework by testing the causalities of whether channel integration is experienced differently when shopping simultaneously online and offline, i.e., practicing showrooming vs. accessing online and offline store sequent. Second, cultural factors may affect consumers' technology use and attitude toward omnichannel shopping. Therefore, our framework should be tested multi-nationally. As the association between showrooming and perceived channel integration has been established, future research should study showrooming and channel integration more closely with case studies and experiments in B&M stores. Future research could also study whether integrating online channels in B&M stores also has negative consequences, such as perceived technostress from a digitalized store environment.

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