



Influence of perceived value on omnichannel usage: Mediating and moderating roles of the omnichannel shopping habit

Neeru Sharma^{a,*}, Johra Fatima^b

^a School of Business, Western Sydney University, Sydney, Australia

^b Canberra Business School, University of Canberra, Bruce, ACT, 2617, Australia

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ABSTRACT

Today, most retail profits are driven by customers' habitual buying behaviour. However, there is a lack of comprehensive theoretical understanding regarding how omnichannel habit affects customers' perceived value and usage. This study uses customer value theory to investigate the various roles of shopping habit (as antecedent, mediator and moderator) in omnichannel retail. To achieve this goal, survey data from 512 omnichannel shoppers in Australia was analysed using the partial least squares method with SmartPLS software version 3. The findings confirm that omnichannel shopping habit plays significant roles as antecedent, mediator, and moderator in the relationship between perceived value and usage. Additionally, the study reveals the positive impact of factors such as security and privacy, seamless experience, personalisation, and social communications. This research expands upon customer value theory by examining the complex relationships between various aspects of omnichannel shopping habit, perceived value and omnichannel usage. For marketers looking to strengthen habitual buying, the study suggests prioritising security and privacy, promoting social communications, and offering personalised services. Recognising the integral influence of habitual buying on value perception and usage, marketers should adopt a cohesive strategy for communicating their value propositions to target customers across multiple channels. This approach can ultimately boost omnichannel usage.

1. Introduction

In the contemporary competitive environment, customer expectations revolve around consistent omnichannel experiences, driving retailers to make substantial investments (Hu et al., 2023; Thaichon et al., 2023; Xie et al., 2023). These services seamlessly serve as a bridge for shopping across various channels (Verhoef et al., 2015), yet the proliferation of channels also brings the temptation of instant market checks and potential switches (Schneider and Zielke, 2020; Wei et al., 2023; Yin et al., 2022). Hence, understanding consumer motivations, including subconscious factors, is paramount in leveraging omnichannel usage (Sun et al., 2020).

With most prior research concentrating on conscious decisions, such as attitudes and intentions (e.g., Chang and Geng, 2022; Mimoun et al., 2022; Song and Jo, 2023), the influence of subconscious tendencies, such as the omnichannel habit (Sun et al., 2020), remains relatively underexplored. Habit can diminish the impact of conscious decisions (Aarts and Dijksterhuis, 2000) and significantly affect behavioural intentions (Cai et al., 2021; Chiu et al., 2012; Jayasingh et al., 2022;

Khalifa and Liu, 2007; Yao et al., 2023).

Understanding shopping habit development is pivotal for omnichannel retailers. Habitual shoppers offer a steady revenue stream (Shen et al., 2018), while retaining existing customers is cost-effective (Chou and Hsu, 2016). Continuous marketing is needed less when shoppers develop an omnichannel habit, leading to cost savings. They are also more likely to recommend the retailer, contributing to valuable word-of-mouth marketing (Kalinić et al., 2020). Establishing an omnichannel habit by customers results in stable purchasing patterns, which aid efficient inventory management (Li et al., 2022) and foster integrated supply chains between retailers and manufacturers (Jena and Meena, 2022). This synergy enhances both the customer experience and the supply chain's profitability.

A deep understanding of shopping habit's association with key omnichannel factors is required to incorporate shopping habit into customer retention strategies. Perceived value strongly influences behavioural responses (Cotarelo et al., 2021; Mimoun et al., 2022; Pereira et al., 2023), with existing research indicating a positive relationship between perceived value and habit in online shopping (Chiu

* Corresponding author. Locked Bag 1797, Penrith, NSW, 2751, Australia.

E-mail addresses: n.sharma@westernsydney.edu.au (N. Sharma), Johra.Fatima@canberra.edu.au (J. Fatima).

et al., 2012). However, empirical evidence is lacking on how shopping habit correlates with perceived value and usage in the omnichannel context. Habit develops when customers associate behaviour with benefits, leading to automatic recall in subsequent actions (Verplanken and Aarts, 1999). Satisfactory value realisation from omnichannel experiences creates positive reinforcement, strengthening the link between using multiple channels and perceived benefits. This repetitive positive reinforcement may develop into a shopping habit where customers respond automatically without consciously evaluating value. Therefore, the impact of conscious value assessment on usage may not be straightforward (Chiu et al., 2012). Shopping habit may serve as an intermediate psychological process, connecting customer perceived value with actual usage behaviour.

This study goes further by suggesting that shopping habit not only mediates but also moderates the perceived value–usage relationship. Prior online shopping research finds that the level of shopping habit can moderate customer behaviour (Chou and Hsu, 2016). For instance, some customers prefer in-store shopping for tactile experiences or face-to-face interactions (Rathee and Rajain, 2019; Vannucci and Pantano, 2020), potentially reducing the impact of perceived value on omnichannel usage.

A comprehensive understanding of the omnichannel habit requires consideration of factors beyond perceived value and usage. Recent research highlights that enhanced perceived value stems from seamless shopping experiences (Chen and Chi, 2021; Cotarelo et al., 2021; Hamouda, 2019; Yen, 2023); personalisation (Rahman et al., 2022; Tyrväinen et al., 2020); security and privacy (Rahman et al., 2022; Thaichon et al., 2023; Xuan et al., 2023); and social communications (Ameen et al., 2021; Rahman et al., 2022). For retailers to develop effective marketing strategies that integrate a shopping habit, a comprehensive examination of how these factors sway customer value perceptions is imperative, thus contributing to omnichannel habit development.

Building on the above discussion, this study leverages customer value theory (Sheth et al., 1991; Zeithaml, 1988) to propose a research model. This model connects perceived value with antecedents, such as personalisation, omnichannel seamless experience, social communications, and security and privacy, ultimately leading to omnichannel usage. This study posits shopping habit as a mediating variable between customer value and usage. Additionally, a second research model is developed to explore the moderating influence of shopping habit on the relationship between perceived value and usage. Specifically, the study aims to (1) examine the mediation effect of omnichannel shopping habit on the relationship between perceived value and service usage; (2) investigate the moderating influence of habit on the perceived value–usage relationship; and (3) analyse the relative impact of personalisation, omnichannel seamless experience, social communications, and security and privacy on perceived value. These relationships are analysed in the current study using a sample of 512 omnichannel shoppers in Australia.

2. Theoretical foundations

2.1. Customer perceived value

Omnichannel studies consistently recognise the pivotal role of perceived value in shaping repeat purchase intentions (Flacandji and Vlad, 2022; Maduku and Thusi, 2023; Quach et al., 2023; Thaichon et al., 2023; Xie et al., 2023; Yen, 2023); enhancing customer satisfaction (Hamouda, 2019); and increasing loyalty (Cotarelo et al., 2021). Authors explore utilitarian values, such as perceived usefulness and convenience of omnichannel platforms (Chaudhary et al., 2022; Chang and Geng, 2022; Mimoun et al., 2022; Song and Jo, 2023), alongside hedonic values, such as fun and pleasure derived from usage (Jayasingh et al., 2022; Yao et al., 2023), as drivers of shopping intentions. Moreover, investigations encompass factors linked to channel integration that

mould customers' perceptions of value, subsequently influencing their behaviours (Hamouda, 2019; Pereira et al., 2023). The omnichannel shopping experience, including its cognitive and emotional dimensions (Cuesta-Valiño et al., 2023), as well as its diverse benefits, such as cost savings, personalisation, interactivity, social interaction, etc. (e.g., Ameen et al., 2021; Rodríguez-Torrico et al., 2020), also attracts research attention. Ultimately, customer behavioural responses hinge on perceived values—utilitarian and hedonic—that shoppers associate with using omnichannel services (Natarajan and Veera Raghavan, 2023) (see Table 1).

2.2. Customer value theory

The conceptual framework in this study draws from customer perceived value theory (Zeithaml, 1988), which conceptualises value as an outcome stemming from the evaluation of the individual customer's interaction with a product/service. This evaluation balances received benefits and given efforts, spanning tangible/intangible gains and monetary/non-monetary sacrifices. In extending this notion, Sheth et al. (1991) introduce a multi-faceted value concept comprising functional, emotional, social, conditional, and epistemic values. Sweeney and Soutar (2001) propose four dimensions: quality/performance, value for money, and emotional and social value. Omnichannel research also explores utilitarian, hedonic and social values (Chang and Geng, 2022).

In this study, perceived value, in alignment with existing research, encompasses a customer's subjective assessments of utilitarian, hedonic and social values derived from omnichannel services. Notably, personalisation, powered by big data analytics, contributes significantly to generating utilitarian and hedonic values through tailored offers based on past behaviours (Hsia et al., 2020; Zhang et al., 2022). Integrating offline and online shopping channels, leading to a seamless experience, generates utilitarian and hedonic values (Chen and Chi, 2021; Cotarelo et al., 2021; Huré et al., 2017). Addressing security and privacy concerns in digital transactions positively influences overall perceived value in omnichannel (Hossain et al., 2020). Likewise, social communications enhance social value (Chang and Geng, 2022).

2.3. Research models and hypotheses development

The research models (Figs. 1 and 2) in this study show the direct influences of personalisation, omnichannel seamless experience, social communications, and security and privacy on perceived value. Incorporating habit theory (Verplanken and Aarts, 1999), the current study proposes the direct effect of perceived value on the omnichannel shopping habit. About shopping habit and customer behaviour, existing habit literature offers two viewpoints: the first states that habit directly affects repeat purchase intention. In contrast, the second suggests habit moderates the relationship between repeat purchase intention and its drivers. This study's first model (Fig. 1) incorporates habit as a mediator in the relationship between perceived value and usage, building on the direct habit effect (Limayem et al., 2007). The second model (Fig. 2) adopts the second viewpoint (Chou and Hsu, 2016; Hsu et al., 2015), introducing habit as a moderator of the relationship between perceived value and usage. Existing research already establishes links between customer perceived value and positive marketing outcomes, such as loyalty (El-Adly and Eid, 2016) and omnichannel use (Chen and Chi, 2021), underpinning the current study's assertion of a positive relationship between perceived value and omnichannel usage.

2.3.1. Research model: shopping habit as mediator (Fig. 1)

2.3.1.1. *Personalisation and perceived value.* Personalisation in omnichannel retailing refers to the retailer's ability to tailor the products/services, the user interfaces and communication to each specific customer based on their preferences, behaviours, characteristics and

Table 1
Themes in the relevant omnichannel consumer behaviour literature.

Theme/paper	Theory	Antecedents	Dependent variables	Study on how customers develop omnichannel shopping habit	Effects of the omnichannel shopping habit on customer behaviours
Technology adoption					
Jayasingh et al. (2022)	Unified theory of acceptance and use of technology (UTAUT2)	Performance expectancy, effort expectancy, social influence, facilitating conditions, habit, hedonic motivation, perceived value	Omnichannel shopping intention	×	×
Mimoun et al. (2022)	UTAUT2	Performance expectancy, effort expectancy, decision quality, onsite technology use, perceived value	Retail patronage	×	×
Chaudhary et al. (2022)	Technology acceptance model (TAM)	Perceived usefulness, ease of use, cost effectiveness and customer engagement	Continuance intention, Actual use	×	×
Song and Jo (2023)	TAM and theory of planned behaviour (TPB)	Relative advantage, attitude, subjective norms, and perceived behaviour control	Continuance intention	×	×
Yao et al. (2023)	UTAUT2 and Expectation confirmation model (ECM)	Performance expectancy, social influence, offline facilitating conditions, hedonic motivation, price value, habit and confirmation and perceived risk	Continued intention	×	×
Channel integration					
Chen and Chi (2021)	Stimulus organism response (SOR) model	Channel integration (promotion, product, price, information, information access, order fulfillment, customer service), perceived value (hedonic, utilitarian), risk, behavioural control, COVID-19 vulnerability	Omnichannel choice	×	×
Hamouda (2019)	Integration quality and perceived value theory	Omnichannel integration quality, perceived value and satisfaction	Loyalty	×	×
Natarajan and Veera Raghavan (2023)	SOR model	Integrated store service quality, shopping experience (cognitive, affective and relational), psychological ownership, perceived value, relationship investment	Word-of-mouth	×	×
Pereira et al. (2023)	SOR model	Channel integration, convenience, empowerment, satisfaction, trust, perceived value	Impulse buying	×	×
Sun et al. (2020)	Social cognition theory	Integration quality, mobile identity, omnichannel satisfaction and omnichannel self-efficacy	Omnichannel habit	✓	✓
Hossain et al. (2020)	Channel integration theory	Omnichannel integration quality and cross buying intentions	Perceived value	×	×
Yen (2023)	SOR model	Channel integration, perceived usefulness, perceived enjoyment, social image, risk, price, personal innovativeness	Usage intention	×	×
Omnichannel shopping value/experience					
Tyrväinen et al. (2020)	Customer experience	Hedonic motivation, personalisation, customer experience	Repeat purchase intention and Word-of-mouth	×	×
Ameen et al. (2021)	Service encounter model, trust-commitment theory, flow theory and experiential value theory	Personal interaction encounters, Physical environment encounters, virtual environment encounters, flow, convenience, interface design, personalisation, privacy, trust, relationship commitment, consumer peer interaction	Omnichannel service usage	×	×
Cotarelo et al. (2021)	Customer experience	Omnichannel intensity, Omnichannel shopping value, satisfaction	Loyalty	×	×
Chang and Geng (2022)	The theory of consumption values	Utilitarian value, hedonic value and social value, attitude towards omnichannel shopping	Omnichannel continuance intention	×	×
Cuesta-Valiño et al. (2023)	Customer experience, SET	Cognitive and emotional experiences, engagement and satisfaction	Loyalty	×	×
Rahman et al. (2022)	Means-end chain theory	Omnichannel customer experience (social communications, value, personalisation, information safety, customer service, consistency, product returns, delivery, loyalty programs)	Satisfaction, loyalty, word-of-mouth, share of wallet and trust	×	×
This research	Customer perceived value theory and Habit theory	Seamless interaction experience, personalisation, security & privacy, social communications, omnichannel shopping habit	Omnichannel usage	✓	✓

past interactions across multiple channels and touchpoints (Ameen et al., 2021; Hsia et al., 2020; Rahman et al., 2022). Retailers gather data about individual customers using various sources, such as purchase history, browsing behaviour, demographic information, location data, and interactions with brands or digital platforms and design personalised content or relevant offers to create a more relevant and engaging shopping experience for customers (Tyrväinen et al., 2020; Yin et al.,

2022). Personalisation effectively reduces search efforts and alleviates uncertainties related to product quality and fit (Holdack et al., 2022; Sun et al., 2022; Thaichon et al., 2023).

When customers receive content, recommendations and communications specific to their interests, it enhances the overall customer experience. This positive experience contributes to a sense of value as it creates a more memorable and satisfying interaction (Serravalle et al.,

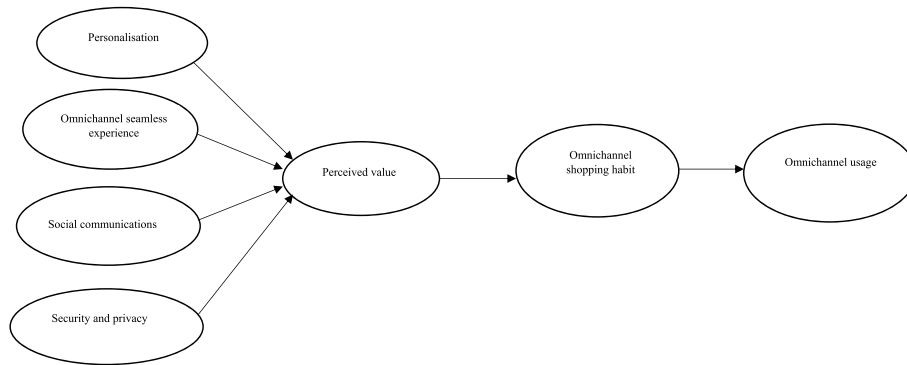


Fig. 1. Research model: omnichannel shopping habit as mediator.

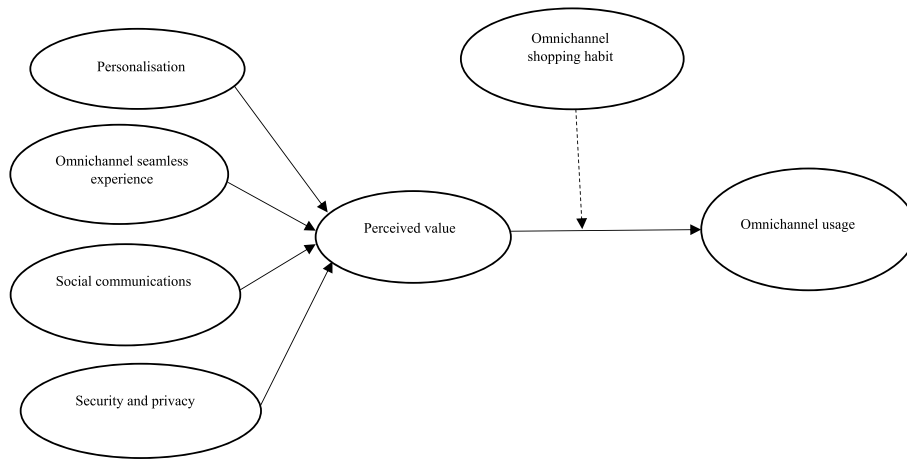


Fig. 2. Research model: omnichannel shopping habit as moderator.

2023). Personalisation saves customers time and effort by presenting options they will likely find appealing. This reduces the need to search through irrelevant choices, making the shopping process more efficient and enjoyable. This time-saving aspect creates perceived value (Alimamy and Gnoth, 2022). Therefore, the study formulates the following hypothesis:

Hypothesis 1 (H1). Personalisation has a positive impact on perceived value.

2.3.1.2. Omnichannel seamless experience and perceived value. A seamless experience is integral to a superior omnichannel shopping experience (Huré et al., 2017; Shen et al., 2018), as it aims to provide a seamless and cohesive journey for customers across different channels and touchpoints (Chang and Li, 2022). The seamless experience across channels depends on the level of cross-channel integration (Gao and Huang, 2021; Hamouda, 2019; Hossain et al., 2020; Pereira et al., 2023; Shen et al., 2018; Sun et al., 2020). Prior research views seamless experience as a retailer’s ability to provide a coherent customer experience (Chang and Li, 2022). Consistent with Chang and Li (2022) and Rodríguez-Torrico et al. (2020), this research conceptualises the omnichannel seamless experience as an experience-oriented concept. This means that customers experience ease, freedom and fluidity in moving between different channels according to their shopping needs during their buying journey. Consistency, channel selection freedom and channel synchronisation are three dimensions of the seamless experience (Rodríguez-Torrico et al., 2020). Consistency involves coherence of and between, retail touchpoints (i.e., each channel has the same marketing mix elements), which builds trust and enhances perceived value (Lin et al., 2023). Freedom in channel selection allows customers to

choose different channels for various interactions, empowering them to make informed decisions and increasing their satisfaction (Mishra et al., 2021). Channel synchronisation enables customers to seamlessly switch between channels for different activities, saving time and effort and enhancing convenience (Cotarelo et al., 2021; Hamouda, 2019).

When customers can navigate different channels and touchpoints without encountering obstacles or confusion, this ease of use saves them time and effort, making their interactions with the company more efficient. When customers find it easy to accomplish their goals—whether finding information, making a purchase or obtaining support—they perceive value in simplicity and convenience (Chang and Li, 2022). Regardless of where they interact with the company, the same level of service and quality creates consistency, a fundamental aspect of value perception (Cotarelo et al., 2021). Therefore, the study formulates the following hypothesis:

Hypothesis 2 (H2). Omnichannel seamless experience has a positive impact on perceived value.

2.3.1.3. Social communications and perceived value. Social communications in omnichannel retailing involve customers engaging with others through online communities, social media platforms or product reviews (Rahman et al., 2022). Through social communications, customers receive opportunities to seek advice, recommendations and insights from other customers on product/service quality and performance (Ameen et al., 2021). Positive word-of-mouth communication from satisfied customers can create a strong sense of value perception, as potential customers trust the opinions of their peers. Seeing other customers discussing or endorsing a product on social media and review platforms serves as social proof, reinforcing the value proposition of the

retailer's offers. Social communications also foster community engagement, allowing customers to connect, ask questions and share experiences within online communities (Cheung et al., 2021). Connections and support enhance emotional and social values (Li et al., 2023). Therefore, the study hypothesises that:

Hypothesis 3 (H3). Social communications have a positive impact on perceived value.

2.3.1.4. Security and privacy, and perceived value. In the omnichannel context, security refers to consumers' perception of measures to protect their customer information and financial transactions (Rahman et al., 2022; Zhang et al., 2019). It involves safeguarding systems and networks from unauthorised access and fraud. Security is crucial at every stage of the customer journey, especially as different devices access payment data, increasing the risk of leakage (Chang et al., 2023). Ensuring secure mobile applications and payment processes builds consumer confidence and enhances their experience.

Privacy refers to protecting personal information and preserving individuals' rights to control its collection, use and disclosure across channels (Chang et al., 2023; Cheah et al., 2022; Thaichon et al., 2023). Transparent handling of customer data, obtaining explicit consent and communicating data usage enhances privacy protection (Hossain et al., 2020). Offering opt-in and opt-out choices empowers customers to manage their communication preferences, improving their shopping experience (Mishra et al., 2021). Adequate security and privacy measures remove privacy concerns, assuring customers that their data are handled securely and in compliance with regulations (Zhang et al., 2019).

Customers perceive a secure online environment as reducing the risk of sharing private information, including bank card details (Xuan et al., 2023). This comfort extends to account set-up, browsing via email, and messaging and chatbots, leading to increased perceived value in using digital channels. Thus, the study hypothesises that:

Hypothesis 4 (H4). Security and privacy have a positive impact on perceived value.

2.3.1.5. Perceived value and shopping habit. Habit theory (Verplanken and Aarts, 1999) suggests that habits are automatic responses learned from specific cues and aimed at achieving goals. In omnichannel retail, buyers actively seek value and perceptions of enhanced value positively influence their inclination to use multiple channels. These consistent value experiences reinforce their belief in the benefits of omnichannel use, developing a positive cycle in which they reaccess omnichannel services in the future. This positive reinforcement can evolve into a shopping habit, wherein customers habitually utilise omnichannel services driven by their pursuit of superior value (Aarts and Dijksterhuis, 2000). Research also demonstrates that customers' perceptions of value significantly impact the development of shopping habit (Chiu et al., 2012). Hence, the study proposes the following hypothesis:

Hypothesis 5 (H5). Perceived value has a positive impact on shopping habit.

2.3.1.6. Omnichannel shopping habit and usage. Omnichannel usage refers to the frequency and range of its use (Shen et al., 2018), which both consider customers' level of access to a particular retailer's omnichannel service. In other words, customers can seamlessly and effortlessly access a company through multiple channels (e.g., physical stores, websites, mobile apps and social media sites), using at least two channels simultaneously in a single shopping process (Chang and Geng, 2022; Sun et al., 2020; Verhoef et al., 2015).

Omnichannel habitual behaviour indicates a natural tendency to use multiple channels rather than relying solely on a single channel for the individual's shopping needs. When a customer develops an omnichannel shopping habit, they are more likely to use a retailer's omnichannel

regularly (Jayasingh et al., 2022; Yao et al., 2023) and may also expand the use of the omnichannel, for example, by increasing the number of channels during the shopping process (Sun et al., 2020). Cai et al. (2021) found that customer habit influenced the usage of logistics technologies. A direct link between habit and usage is demonstrated by Limayem et al. (2007) in the context of information systems. Based on these insights, the study develops the following hypothesis:

Hypothesis 6 (H6). Omnichannel shopping habit has a positive impact on usage.

2.3.1.7. Omnichannel shopping habit as a mediator between perceived value and omnichannel usage. Previous research (Sun et al., 2020) proposes that customers' satisfactory experience with a retailer's omnichannel services develops habit, which, in turn, increases usage. However, their study does not empirically examine the mediation effect of habit. We posit that the omnichannel shopping habit bridges the customer's perception of value and their omnichannel use behaviour. The habit development reflects the customer's belief that using multiple channels is valuable and beneficial based on the value they have received from the retailer (Chiu et al., 2012). As the habit strengthens, it reinforces the customer's motivation to continue using the services and expands their usage (Limayem et al., 2007). Therefore, the current study develops the following hypothesis to test the mediation of omnichannel shopping habit in the perceived value–service usage relationship.

Hypothesis 7 (H7). Omnichannel shopping habit mediates the relationship between perceived value and omnichannel usage.

2.3.2. Research model: shopping habit as moderator (Fig. 2)

2.3.2.1. Perceived value and omnichannel usage. Numerous studies on omnichannel retailing examine the relationship between perceived value and shopping intention (e.g., Chang and Geng, 2022; Chaudhary et al., 2022; Jayasingh et al., 2022; Mimoun et al., 2022). While previous studies implicitly touch on the relationship between perceived value and omnichannel usage (e.g., Ameen et al., 2021; Shen et al., 2018), further insights are needed. By recognising the benefits and worth derived from omnichannel services, customers are expected to be more motivated to utilise these services. Therefore, this study formulates the following hypothesis:

Hypothesis 8 (H8). Perceived value has a positive impact on usage.

2.3.2.2. The moderating effect of omnichannel shopping habit on the relationship between perceived value and omnichannel usage. Previous research reveals that the factors influencing repeat purchase intention have decreased significance as habits develop (Khalifa and Liu, 2007). Online shopping studies (Chou and Hsu, 2016; Hsu et al., 2015) suggest that when customers share similar perceptions of benefits/value, those with a strong habit are more likely to repurchase from the same seller than those without such a habit. In addition, Nazir et al. (2023), in a study on hospitality services, report a significant moderating influence of habit on customer experience in driving behavioural response. Habits develop when customers link specific behaviours to benefits, making these behaviours automatic (Verplanken and Aarts, 1999). Thus, the present study proposes that the impact of perceived value on omnichannel usage depends on shopping habit.

Perceived value entails a cognitive assessment of the benefits or worth of omnichannel services (Rahman et al., 2022). When customers become habitual users of omnichannel services, the need for cognitive evaluation diminishes, with the behaviour performed automatically. In simpler terms, even if the perceived value is relatively low, customers with a strong habit are more likely to consistently use multiple channels as this has become their preferred shopping behaviour. Conversely, if customers have a weak or less developed omnichannel shopping habit, its influence on omnichannel usage might be weaker even if the

perceived value is relatively high. In such cases, other factors, such as individual channel preferences, may have a stronger impact on using multiple channels. For instance, [Rathee and Rajain \(2019\)](#) find that customers' desire for tactile experiences leads to a preference for buying in physical stores. Based on these findings, it is plausible that developing an omnichannel shopping habit could moderate the effect of perceived value on omnichannel usage. Therefore, the study formulates the following hypothesis:

Hypothesis 9 (H9). Omnichannel shopping habit moderates the relationship between perceived value and omnichannel usage in such a way that a high level of habit development will strengthen the relationship.

3. Research methodology

3.1. Measures, sample and data collection

The constructs were measured by adapting existing scales (see [Table 2](#)) and employed a 5-point Likert scale, ranging from strongly disagree (1) to strongly agree (5), consistent with prior omnichannel retail studies (e.g., [Cotarello et al., 2021](#); [Rodríguez-Torrico et al., 2020](#)). This scale choice provides distinct response options ([Asún et al., 2016](#)). Data collection was supported by a modest grant from one co-author's university school, enabling a sample size 512. This study applied the partial least squares-based structural equation modelling (PLS-SEM) method to analyse the research models, adhering to the recommended sample size guideline of 10 times the number of items for the most complex construct ([Chin, 1998](#)), consistent with previous omnichannel studies (e.g., [Chang and Geng, 2022](#); [Gao and Huang, 2021](#)).

The sample size of 512 was deemed suitable for the data; however, due to budget constraints, data were exclusively collected from residents of New South Wales, Australia's most populous state, and the base of the market research company used. Respondents were consumers aged 18 and above who had engaged across channels (physical store, website, or mobile phone application) at least three times across channels within the last three years ([van Dolen et al., 2004](#)). Respondent anonymity was guaranteed, and the respondents' chosen company's industry (e.g., groceries/toiletries, cosmetics/furniture, home appliances/home office equipment and supplies/clothing/footwear) was the reference point for answering the questions.

The questionnaire underwent refinement based on feedback from two senior marketing academics, followed by validation with 15 omnichannel users who found it effective for measuring the intended aspects. In line with previous omnichannel research (e.g., [Chang and Geng, 2022](#); [Cuesta-Valiño et al., 2023](#)), 37 additional omnichannel users who met the inclusion criteria were chosen from the authors' professional and social networks for pre-testing the questionnaire. The main empirical study was conducted in October–November 2022, using an online questionnaire completed by 512 market research company panel participants. From an initial 705 respondents, 193 were excluded based on selection criteria, thus yielding the final sample of 512 respondents. The sample excluded pre-test participants. Notably, no missing or incomplete response data occurred, as the computer-generated questionnaire prevented respondents from advancing to the next question until all previous questions were answered. A good balance of male (49.7%) and female (49.9%) respondents participated in the survey, with a low percentage of individuals who chose not to disclose their gender (0.40%). In terms of age, a significant segment (around 50.8%) was from the 18–45-year age group, with about 29.8% aged from 46 to 60 years, while the rest (around 19.4%) were above 60 years of age.

4. Results

The study used SmartPLS v.3 software for performing PLS-SEM

Table 2
Study measures, sources and item loadings.

Construct/item	Item loading
Personalisation (Rahman et al., 2022)	
The company makes personalised recommendations across the online and offline stores about what I should consider buying.	.773
The advertisements and promotions that the company sends to me are tailored to my situation.	.831
I believe that the online and offline stores of the company are customised to my needs.	.829
The company enables me to order products/services across online and offline stores that are tailor-made for me.	.798
Omnichannel seamless experience (Rodríguez-Torrico et al., 2020)	
Consistency	
The company provided consistent store images across online and offline stores.	.758
The company provided consistent product information across online and offline stores.	.781
The company provided consistent promotional information across online and offline stores.	.769
The company provided consistent customer service across online and offline stores.	.734
Channel selection freedom	
The company allowed me to choose where to shop for merchandise.	.683
The company allowed me to choose any channel to arrange service.	.661
If there is any service problem (e.g., delivery, return or refund problem), the company allowed me to choose any channel to report service failure.	.702
Synchronisation	
The company allowed me to pick up products bought in one channel through another.	.649
The company allowed me to choose the most convenient way of interacting with them (e.g., search the product, purchase, pick-up, return, post-purchase ...) through all channels.	.685
Social communications (Rahman et al., 2022)	
Customer reviews of the company across online and offline stores are accurate.	.817
Customer reviews across the company's online and offline stores make me confident to buy from the company.	.829
Online posts by other customers make me confident to buy from the company.	.848
Customer reviews of the company across online and offline stores are trustworthy.	.821
Security and privacy (Hossain et al., 2020)	
All the channels of the company have adequate security features.	.783
I feel secure about using this company's multiple channels.	.760
My personal information across various channels of the company is protected.	.815
My personal information across various channels of the company is not shared with others.	.807
My financial information across various channels of the company is not shared with others.	.817
Perceived value (Rahman et al., 2022)	
I am getting a good deal in buying from the company.	.796
I might continue to buy from the company, even if prices increased slightly.	.749
The products/services offered by the company are worth the cost.	.834
The company offers competitively priced products/services across online and offline stores.	.793
Omnichannel shopping habit (Sun et al., 2020)	
Using different channels has become automatic to me.	.723
Using different channels is natural to me.	.777
When I buy some product/service, using different channels is an obvious choice for me.	.792
The use of different channels has become a habit for me.	.843
I am addicted to using different channels when buying product/service.	.632
I must use different channels.	.572
Omnichannel usage (Sun et al., 2020)	
I have spent much time using the different channels of the company.	.796
I frequently access the different channels of the company.	.858
I have used most available channels when dealing with the company.	.768
Most of my interactions with the company occur through different channels.	.804

analysis. The SmartPLS software primarily aims at causal predictive analysis and does not require a normal distribution of empirical data (Hair et al., 2017). Due to its added advantages, PLS-SEM is an analytical tool widely accepted among recent retail and consumer services researchers (Bangun et al., 2023; Di Mascio and Fatima, 2018; Fatima et al., 2019; Jadhav et al., 2023). Due to its inherent suitability with relatively small sample sizes and non-normal data, PLS-SEM is preferred over covariance-based structural equation modelling (CB-SEM). Using PLS-SEM, researchers can estimate complex models without additional constraints (Hair et al., 2012; Henseler et al., 2009). The findings of the research model with shopping habit as a mediator (Fig. 1) are presented first. The findings of the research model with shopping habit as moderator (Fig. 2) are then discussed.

Research model: shopping habit as mediator.

4.1. Common method variance bias, measure reliability and validity

As no inner variance inflation factor (VIF) value greater than 3.30 was found in the PLS output for collinearity (Table 3), this provides evidence (Kock, 2015) that the data do not suffer from a severe common method bias. Moreover, no latent construct correlated with any other construct more than 0.9 (Bagozzi et al., 1991) (see Table 4), confirming that common method bias is within the permissible limit.

Table 2 shows that most items met the suggested outer loading criteria of 0.70 or above (Henseler et al., 2016). A bootstrapping analysis of 5000 subsamples was conducted to assess the item reliability of the remaining constructs. The standardised loadings were found to be highly significant (p -value < 0.001) for all items, thus demonstrating item reliability. Table 4 presents the composite reliability with values ranging from 0.870 to 0.904, satisfactorily above the threshold of 0.70. All seven constructs also show average variance extracted (AVE) values much higher than the minimum acceptable value of 0.5 (Fornell and Larcker, 1981). Discriminant validity, as the square root of each construct's average variance extracted (AVE) score (in bold in Table 4), is greater than its highest correlation with other constructs (Fornell and Larcker, 1981). Table 5 presents further evidence of discriminant validity, with the heterotrait–monotrait (HTMT) ratio score for all constructs under the recommended limit of 0.9 (Henseler et al., 2016).

4.2. Structural model

As all constructs have VIF values below 3.33 (Table 3), no collinearity issues are present. As stated in Fig. 3, the R^2 values for endogenous constructs are relatively high and acceptable for behavioural research (Hair et al., 2017).

Cohen's (1992) f^2 guideline was used to evaluate how removing a particular predictor construct would affect an endogenous construct's R^2 value (with a large effect being 0.35, a medium effect being 0.15 and small effect being 0.02). As shown in Table 6, removing the path from omnichannel shopping habit to usage (f^2 value = 0.763) will have a large effect on the R^2 value for usage, so the path should be retained. Habit will be significantly affected (medium effect of 0.206) by removing the path from perceived value. Perceived value will be

Table 3
Common method bias analysis: Inner VIF values (primary research model).

	Omnichannel shopping habit	Omnichannel usage	Perceived value
Omnichannel shopping habit	1.000		
Omnichannel seamless experience			1.504
Perceived value	1.000		
Personalisation			1.590
Security and privacy			1.666
Social communications			1.849

Table 4
Reliability and validity: Fornell and Larcker method.

Construct	Cronbach Alpha	Composite reliability	AVE	Personalisation	Omnichannel seamless experience	Social communications	Security and privacy	Perceived value	Omnichannel shopping habit	Omnichannel usage
Personalisation	0.823	0.883	0.653	0.808						
Omnichannel seamless experience	0.880	0.904	0.511	0.472	0.715					
Social communications	0.848	0.898	0.687	0.554	0.474	0.829				
Security and privacy	0.856	0.896	0.634	0.445	0.486	0.579	0.796			
Perceived value	0.804	0.872	0.630	0.529	0.531	0.598	0.589	0.794		
Omnichannel shopping habit	0.818	0.870	0.532	0.453	0.479	0.453	0.408	0.413	0.729	
Omnichannel usage	0.821	0.882	0.652	0.459	0.428	0.448	0.364	0.341	0.658	0.807

* Fornell and Larcker (1981) values are on the diagonal.

Table 5
Discriminant validity: HTMT results.

	Omnichannel seamless experience	Omnichannel usage	Perceived value	Personalisation	Security and privacy	Social communications
Omnichannel seamless experience						
Omnichannel usage	0.521					
Perceived value	0.622	0.416				
Personalisation	0.559	0.56	0.646			
Security and privacy	0.556	0.429	0.704	0.528		
Social communications	0.546	0.535	0.719	0.657	0.673	

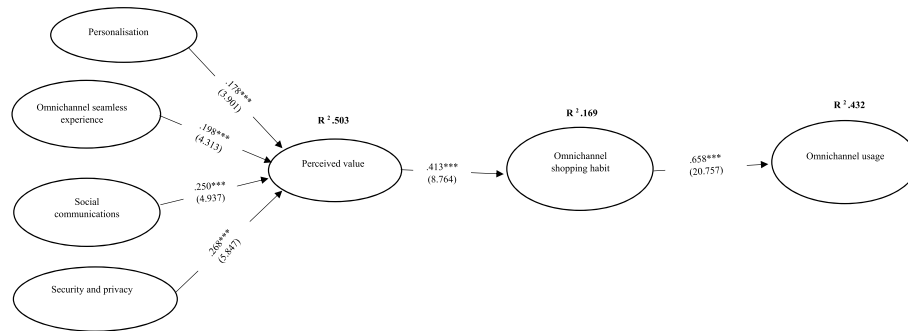


Fig. 3. Structural paths – omnichannel shopping habit as mediator.

Table 6
Effect sizes (f^2) (omnichannel shopping habit as mediator).

	Omnichannel shopping habit	Omnichannel usage	Perceived value
Omnichannel shopping habit		0.763	
Omnichannel seamless experience			0.053
Perceived value	0.206		
Personalisation			0.040
Security and privacy			0.088
Social communications			0.069

affected by all endogenous constructs: personalisation (small effect of 0.04); omnichannel seamless experience (small effect of 0.053); social communications (small effect of 0.069), and security and privacy (small effect of 0.088).

4.3. Tests of hypotheses

4.3.1. Direct effects (Hypotheses H1 to H6)

As shown in Fig. 3, the hypothesised relationships between personalisation and perceived value (H1) ($\beta = 0.178, t\text{-value} = 3.901, p\text{-value} < 0.001$); omnichannel seamless experience and perceived value (H2) ($\beta = .198, t\text{-value} = 4.313, p\text{-value} < 0.001$); social communications and perceived value (H3) ($\beta = 0.250, t\text{-value} = 4.937, p\text{-value} < 0.001$), and security and privacy and perceived value (H4) ($\beta = 0.268, t\text{-value} = 5.847, p\text{-value} < 0.001$) are supported. The relationships of perceived value to omnichannel habit (H5) ($\beta = 0.413, t\text{-value} = 8.764, p\text{-value} < 0.001$) and shopping habit to omnichannel usage (H6) ($\beta = .658, t\text{-value} = 20.757, p\text{-value} < 0.001$) are also accepted.

4.3.2. Mediation analysis for omnichannel shopping habit (hypothesis H7)

After following the bootstrapping method (Preacher and Hayes, 2004), habit is found to be a significant mediator between perceived value and omnichannel usage (44.60%: lower level [LL] 0.2075 and upper level [UL] 0.3724), supporting H7. As path (a) (effect of value on habit, 0.430), path (b) (habit on usage, 0.687) and path (c) (total effect of value on usage, 0.392) are significant ($p\text{-value} < 0.001$) and positive, following the interpretation of Zhao et al. (2010), it is a complementary

type of mediation. According to Zhao et al. (2010), complementary mediation is termed ‘partial mediation’ by Baron and Kenny (1986) in their model. While a missing mediator is possible in the relationship in the complementary type of mediation (Zhao et al., 2010), at the same time, the analysis also validated that the study’s hypothesised mediation impact of habit exists with a percentage of 44.60%. A further mediation analysis using a PLS-based model (Refer to Appendix) showed that the mediation effect exists.

Research model: shopping habit as moderator.

4.3.3. Direct effects (Hypotheses H1 to H4, H8)

As shown in Fig. 4, sufficient support is found to accept the hypothesised relationships between personalisation and perceived value (H1) ($\beta = 0.178, t\text{-value} = 4.016, p\text{-value} < 0.001$); omnichannel seamless experience and perceived value (H2) ($\beta = .198, t\text{-value} = 4.294, p\text{-value} < 0.001$); social communications and perceived value (H3) ($\beta = .249, t\text{-value} = 4.825, p\text{-value} < 0.001$); and security and privacy and perceived value (H4) ($\beta = .269, t\text{-value} = 5.915, p\text{-value} < 0.001$). The association between perceived value and usage (H8) is also accepted ($\beta = .343, t\text{-value} = 7.201, p\text{-value} < 0.001$).

4.3.4. The moderating effect of omnichannel shopping habit (H9)

Using multi-group analysis (Henseler et al., 2016), the interaction effect of omnichannel shopping habit and perceived value is significant. The t-value difference (2.924) and p-value difference (0.004) are significant between the groups; therefore, H9 is accepted. The results show that the group with the higher level of habit has a stronger interaction effect of the omnichannel shopping habit and perceived value ($t\text{-value} = 6.338$), compared to the group with the lower level of habit ($t\text{-value} = 0.598$).

5. Discussion

This study aimed to find how the key factors of omnichannel retailing platforms, such as personalisation, seamless experience, security and privacy, and social communications, influence customer perceptions of value and subsequently translate into omnichannel usage. Moreover, this study analysed the mediating and moderating roles of shopping habit, shedding light on the underlying mechanisms and individual differences in the perceived value–usage relationship.

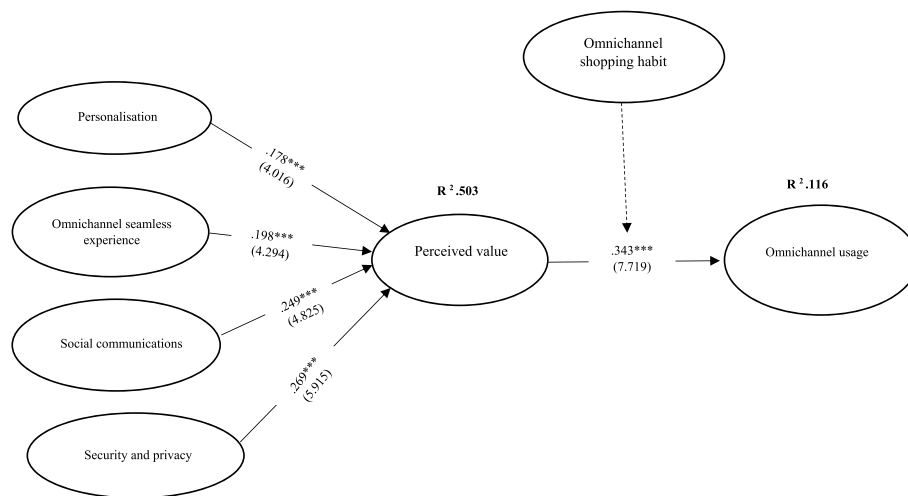


Fig. 4. Structural paths – omnichannel shopping habit as moderator.

While previous research in the omnichannel context does not specifically examine the link between perceived value and habit in predicting customer attitude/behaviour, empirical evidence from prior studies (Jayasingh et al., 2022; Sun et al., 2020) demonstrates a strong relationship between habit and behavioural intention. Additionally, research on online shopping has shown the influence of perceived value on habit (e.g., Chiu et al., 2012). Furthermore, an information systems study by Limayem et al. (2007) found a direct effect of habit on continuous usage. The mediating effect of habit in the relationship between perceived value and usage suggests that consumers who perceive value in using multiple channels for shopping may develop the habitual behaviour of omnichannel services, leading to increased usage.

In the competitive omnichannel environment, perceived value is confirmed as a key element driving customer retention, as highlighted in previous research (Cotarelo et al., 2021; Yen, 2023). Understanding the factors driving perceived value and how this leads to service usage is crucial for practitioners in developing effective marketing strategies. Interestingly, this study reveals that not only is the perceived value–usage link relevant, but the direct effect of habit on usage is even more significant in the omnichannel environment. The direct effect of perceived value on usage (Fig. 4) is comparatively weaker than the direct effect of shopping habit (Fig. 3).

The study findings, particularly when considering shopping habit as a moderator (Fig. 4), provide insights into the direct relationship between perceived value and service usage, as previously highlighted in research by Cotarelo et al. (2021) and Mimoun et al. (2022). However, the current study reveals that the strength of this relationship varies depending on the level of shopping habit. In other words, the presence of shopping habit can either amplify or diminish the influence of perceived value on usage. Specifically, as consumers develop the habitual behaviour of using multiple channels, the impact of shopping value on usage becomes stronger. This finding suggests that when consumers have well-established shopping habits, their perception of value plays a more significant role in driving their usage of omnichannel services. While no existing studies specifically investigate the influence of shopping habit on perceived value and usage in omnichannel retailing, the current study's findings align with previous research conducted by Hsu et al. (2015) in the online shopping domain. Hsu et al. (2015) found that shopping habit strengthened the impact of perceived value on repurchase intention. The current study's findings support this notion and correspond to findings from the study by Shen et al. (2018), which touched upon the influence of habit on omnichannel service usage. However, the previous study does not explicitly consider omnichannel shopping habit as a construct in the research model. While further research is needed to examine the role of shopping habit in omnichannel

retailing directly, the alignment with previous findings in the online shopping literature indicates the potential impact of shopping habit on customer behaviour and its implications for retailers.

The regression coefficients (Fig. 3) provide insights into the relative contributions of personalisation, omnichannel seamless experience, social communications, and security and privacy to perceived value in the omnichannel context. Among these factors, security and privacy emerge as the most important determinant of perceived value. Although no direct comparisons can be made with previous studies, these results align with the findings of Kazancoglu and Aydin (2018), who identify security and privacy as the primary determinant of omnichannel shopping intention. The current study's findings also resonate with other research works, such as Hossain et al. (2020), Gao and Huang (2021), and Zhang et al. (2019), in which consumers' security and privacy concerns are considered aspects of perceived quality, predicting perceived value, satisfaction and loyalty in the omnichannel context. The current study contributes to existing research by demonstrating that security and privacy directly influence value perceptions and exert a stronger effect than personalisation, omnichannel seamless experience and social communications. These findings highlight the importance of addressing security and privacy concerns to enhance customers' perceptions of value in the omnichannel environment.

Social communications emerge as the second most important determinant and positively influence perceived value in the current study. This finding aligns with previous research, such as Ameen et al. (2021) and Cheung et al. (2021), demonstrating the positive impact of customer peer interactions on repeat use intention in online retailing.

This study also reveals that omnichannel seamless experience is the third strongest determinant in influencing perceived value. The positive influence of seamless experience on perceived value suggests that the greater the consumer's perception of a seamless omnichannel experience, the higher their perception of value. This finding extends the previous research by Huré et al. (2017), who consider omnichannel integration factors (seamlessness and consistency) as a moderator of value. Massi et al. (2023) and Rodríguez-Torrico et al. (2020) further support the finding, demonstrating that a seamless multichannel customer experience significantly enhances outcomes such as purchase intention and customer satisfaction.

The current study's findings also highlight the influence of personalisation on perceived value, indicating that consumers highly value personalised communications and incentives. This finding aligns with previous research by Zhang et al. (2022), which reports the significant influence of personalisation on customer retention in the omnichannel context.

Overall, these findings contribute to a nuanced understanding of the

role of habit in shaping customer behaviour in the omnichannel environment. They carry significant implications for both research and practice, as discussed below.

5.1. Theoretical contributions

Given the competitive retailing environment, understanding how customer habit influences perceived value and service usage is essential for increasing customer retention. Previous studies on online retailing (e.g., Hsu et al., 2015) have demonstrated that a strong customer habit enhances the influence of perceived value on behavioural intention. However, the link between habit and perceived value in the omnichannel context remains less explored. This study addresses this gap by highlighting the importance of connecting perceived value with habit to comprehend customer behaviour.

The study highlights the subconscious psychological aspect of customer behaviour by focusing on shopping habit. Previous studies on omnichannel customer behaviour (e.g., Cotarelo et al., 2021; Hossain et al., 2020; Mimoun et al., 2022; Song and Jo, 2023; Yen, 2023) primarily centred on modelling behavioural intention or conscious psychological processes underlying behavioural responses. While some studies (e.g., Shen et al., 2018) acknowledge the existence of habitual behaviour, they do not explicitly model the relationship between omnichannel shopping habit and behavioural responses. The current study utilised customer value theory to integrate the conscious aspect (perceived value), which motivates omnichannel usage. It also explicitly mapped the relationships among the subconscious factor (omnichannel shopping habit), perceived value, and omnichannel usage. By exploring conscious and subconscious psychological processes, this research responds to recent calls (Mishra et al., 2021; Singh and Basu, 2023) for new approaches to understanding omnichannel customer behaviour.

One notable contribution of this study is its revelation of the mediating role of shopping habit in the relationship between perceived value and usage behaviour. This finding underscores that habitual behaviour can automatically influence usage without conscious evaluation of value. Although prior studies acknowledge the existence of omnichannel habit (Sun et al., 2020), its role as a mediator in driving usage, particularly about key factors like perceived value, remains unexplored. To enhance the understanding of omnichannel shopping habits, it would be of value to investigate the influence of potential moderating factors such as customer segments (e.g., age, gender, income) (Mosquera et al., 2019) on the strength of the mediation. Furthermore, future research could investigate whether the mediation effect holds across various product categories or retail formats (Lim et al., 2022), thereby providing a comprehensive understanding of the interplay between shopping habit, value perception and usage behaviour.

Expanding on this discussion, another significant contribution is examining the moderating effect of omnichannel shopping habit on the relationship between shopping value and usage (Hsu et al., 2015). The findings show that the impact of perceived value on usage significantly varies between individuals with high and low levels of omnichannel shopping habit. Specifically, individuals with a high level of omnichannel habit demonstrate a stronger influence of perceived value on usage. To further advance the understanding of this moderating effect, future researchers could investigate potential differences in the moderating effect of omnichannel shopping habit across different customer segments. Examining demographics, psychographics, or behavioural characteristics could help identify specific customer groups that exhibit varying levels of responsiveness to the influence of shopping value on usage behaviour.

5.2. Managerial implications

The findings of this study have important implications for practitioners in omnichannel retailing. While perceived value remains a crucial driver of usage (Briedis et al., 2021), the study highlights the

mediating role of habit, emphasising the need for retailers to cultivate habitual behaviour among their customers. To effectively leverage these findings, retailers should develop a compelling value proposition highlighting the benefits of consistently using multiple channels. They should identify and emphasise the factors contributing to value perception in their marketing and communication efforts.

Retailers must have security and privacy policies to address and minimise customers' concerns, as these policies play a significant role in establishing trust and credibility. In the age of digital commerce and widespread data breaches, customers are becoming increasingly conscious of how their information is collected, used and protected. By implementing clear and comprehensive data protection policies and transparently communicating their data handling practices, retailers can build customer confidence and enhance perceptions of superior value. Additionally, retailers should establish online communities or forums where customers can connect, ask questions, share experiences, and provide recommendations. Encouraging customers to generate and share user-generated content, such as reviews, testimonials, photos, videos, and social media posts, can enhance value perceptions.

Retailers should strive to deliver a seamless and connected customer experience across multiple channels. This involves maintaining consistency in marketing mix elements, such as branding, messaging, promotions and customer service, throughout the customer's buying journey. Finally, customising website content, layout, and messaging based on individual customer profiles can also increase value perceptions. Retailers should segment customers based on their preferences, purchase history or browsing behaviour and tailor their messages and offers to individual customers, thus enhancing the overall shopping value.

Furthermore, the study highlights that omnichannel shopping habit moderates the relationship between perceived value and usage. This implies that while perceived value plays a significant role, shopping habit has greater predictive power in explaining omnichannel usage. To optimise their efforts in enhancing customer retention, retailers can tailor their offers and incentives based on the customer's existing shopping habits. For customers with strong omnichannel shopping habit, retailers can design loyalty programs that reward and recognise their habitual behaviour. On the other hand, retailers can focus on incentives for customers with weaker habits that encourage and motivate them to explore and engage with multiple channels more frequently.

5.3. Limitations and future research directions

There are notable limitations that warrant future investigation. While customer perceived value theory (Zeithaml, 1988) represents product/service interaction evaluation, the study only considers routine purchase items but not complex buying decisions and experiences, which may manipulate the impact of value construct on habit and omnichannel usage. Further research may also focus on exploring various dimensions of value (e.g., utilitarian, hedonic, and social aspects) to deepen the understanding of habitual behaviour (Chang and Geng, 2022). It would also be interesting to examine the interplay of value dimensions with customer segments (Mosquera et al., 2019) to enhance the boundary of literature on habit development. Next, future studies may adopt a benefit-cost-based value construct (Yen, 2023), encompassing factors such as search convenience (Zhao et al., 2023) and monetary cost like price (Yao et al., 2023) in driving value. Further, examining habit development in diverse scenarios, such as low versus high shopping frequency (Chiu et al., 2012) and varying experience levels (Shen et al., 2018), could offer more valuable insights. Webroomers, who extensively check products online, are also a growing area of interest with a heightened focus on value consciousness. Given the study considers only Australian consumers, testing the research model in different settings, especially in countries at an early stage of omnichannel service adoption, could yield valuable insights. While habit theory (Verplanken and Aarts, 1999) claimed that habit directly or

indirectly (moderation effect) affects repeat purchases, another limitation of the study is that it did not consider a model with only habit to omnichannel usage to reduce antecedent bias. Using a different set of antecedents for habit may change the habit's mediation or moderation impact on omnichannel usage. Finally, the study did not report on model comparison; future research may compare and report on different models' effectiveness to examine omnichannel usage. Despite its limitations, this study reveals important mechanisms driving omnichannel usage and provides valuable directions for future research.

Declaration of competing interest

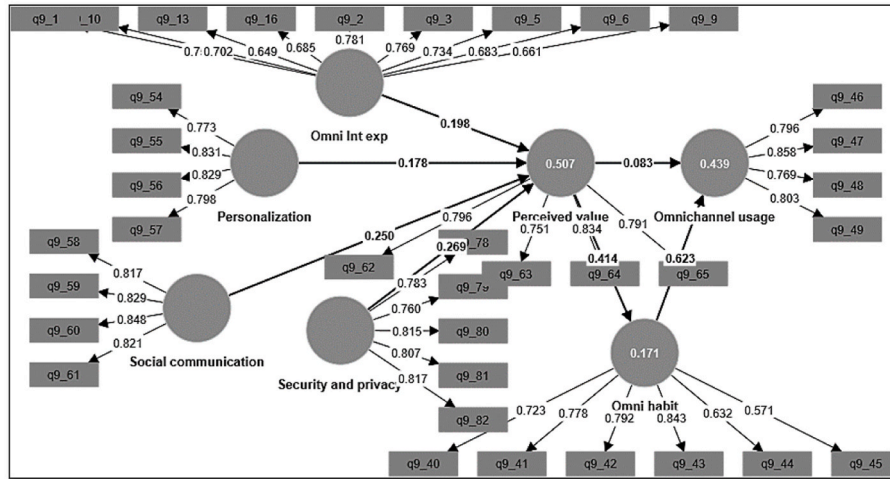
The authors reported no conflict of interest.

Data availability

The authors do not have permission to share data.

Appendix A

PLS model with mediation role of habit and a direct path from perceived value to omnichannel usage.



Path coefficients				
	Omni int exp	Omni habit	Omni. usage	Perceived value
Omni int exp				0.198
Omni habit			0.623	
Omnichannel usage		0.414	0.083	
Perceived value				0.178
Personalisation				0.269
Security and privacy				0.25
Social communications				0.25
Bootstrapping results		t-statistics	p-values	
Omni int exp → Perceived value		4.436	<0.001	
Omni habit → Omnichannel usage		15.527	<0.001	
Perceived value → Omni habit		8.676	<0.001	
Perceived value → Omnichannel usage		2.029	0.043	
Personalisation → Perceived value		3.897	<0.001	
Security and privacy → Perceived value		5.977	<0.001	
Social communications → Perceived value		4.997	<0.001	
Total indirect effect				
Perceived value → Omnichannel usage		t-statistics	p-values	
Specific indirect effect		7.523	<0.001	
Specific indirect effect				
Perceived value → Omni habit → Omnichannel usage		t-statistics	p-values	
		7.523	<0.001	

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