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Citation for published version:

Mutambik, I, Lee, J, Almuqrin, A, Alamri, A & Gauthier, J 2024, 'Mapping the impact of consumer online service experience on online impulse buying behaviour', *Journal of Global Information Management*, vol. 32, no. 1, pp. 1-27. <https://doi.org/10.4018/JGIM.347882>

Digital Object Identifier (DOI):

[10.4018/JGIM.347882](https://doi.org/10.4018/JGIM.347882)

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Publisher's PDF, also known as Version of record

Published In:

Journal of Global Information Management

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Mapping the Impact of Consumer Online Service Experience on Online Impulse Buying Behaviour

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ABSTRACT

Managers of e-commerce platforms and online retail stores have noticed a connection between the consumer online service experience (COSE) and the inclination to engage in online impulse buying behaviour (OIBB). Previous research has shown that COSE can influence OIBB, but the specific relationships between the emotional and utilitarian dimensions require further investigation. This study aims to fill this gap by examining how attitudinal loyalty serves as a mediator between COSE and OIBB. A survey-based quantitative methodology was employed to gather data on the attitudes and behaviours of 1,504 online shoppers. The collected data were analysed using structural equation modeling, revealing a positive relationship between the examined COSE factors and OIBB, with attitudinal loyalty acting as a mediator. Although the regional biases and cross-sectional nature of the study are limitations, the results are generally applicable. However, future research utilizing a longitudinal approach and a broader geographic sample would provide valuable insights.

KEYWORDS

Behaviour, Consumer Online Service Experience, E-Commerce, Impulse Buying, Online Impulse Buying Behaviour

Globally, the online shopping market is set to grow significantly over the next few years in spite of the fact that its current size is unprecedented (Prayandi et al., 2023; Salem et al., 2023; Soares et al., 2023). In monetary terms, global retail e-commerce sales amounted to approximately \$5.2 trillion in 2021, and they have been forecast to grow by 56% by 2026 (Statista, 2022). The current growth of this market offers unparalleled opportunities, but it also serves as a catalyst for online impulse buying behavior (OIBB). Simply put, OIBB represents the unplanned and spontaneous purchasing of items online (Lamis et al., 2022; Lim & Kim, 2022). It is manifested in diverse ways and its effects can

DOI: 10.4018/JGIM.347882

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be far reaching. OIBB is also said to be on the rise since the turn of the millennium. For instance, estimates in 2013 suggested that only 60% of purchases worldwide were planned, while the remaining 40% were classified as impulse purchases. The percentages are even higher today in favor of the latter (O’Cass & Siahtiri, 2013). Furthermore, the existing literature reveals a positive relationship between OIBB and certain hedonic factors within the consumer online service experience (COSE), including browsing pleasure and satisfaction (Durukal, 2022; Schiessl et al., 2023; Williams & Rothenberg, 2022). Thus, COSE has the potential to influence customers’ OIBB.

However, there is no holistic understanding of the relationship between the two. The current understanding of how COSE affects OIBB is fragmentary. It is based sometimes on studies that have focused mainly on utilitarian aspects of the former, largely ignoring its emotional dimension (Kamoonpuri & Sengar, 2023; Koronaki et al., 2023; Verhoef et al., 2009); sometimes on studies that have sought to use stimulus-response theories (Chan et al., 2017); and sometimes emphasizing a variety of “psychological” dimensions (Gulfraz et al., 2022, Nabela & Albari, 2023). Given this situation, a fuller understanding of the factors that trigger and affect OIBB would be valuable (Hazarika & Mousavi, 2022; Klaus et al., 2023; Kuppelwieser & Klaus, 2021; Schafft et al., 2023). A recent, quite comprehensive systematic review (Redine et al., 2023) shows the variety of approaches that have been taken. One issue that is identified as lacking clarity in the existing research is the significance of the cultural context of the purchaser. There is some evidence that cultural factors, such as individualism versus collectivism, and the degree of power distance in a culture, can affect impulse buying. A deeper understanding of these issues will be particularly significant because it will allow e-commerce managers to create promotional strategies that strike a rational, ethical balance between apparently contradictory corporate objectives, such as maximizing sales while meeting corporate social responsibility (CSR) goals that can sometimes be compromised by the use of aggressive sales techniques that encourage overconsumption, environmental waste, and reckless spending (Gahler et al., 2023; Gurbanova & Wang, 2023; Pusceddu et al., 2023).

This study seeks to contribute to this area of knowledge. It takes its cue initially from recent studies by Gulfraz et al. (2022) and Nabela and Albari (2023). We developed a model that is similar to theirs and we sought to apply it in the cultural context of Saudi Arabia. This model allowed us to look at the extent to which we essentially replicated their findings, and whether the model may expose or mask cultural factors. In this model, there is a focus on the parameter of “attitudinal loyalty,” the extent to which the customer has some loyalty to the brand of the platform they are using, which these studies (among others) have found to mediate the relationship between COSE and OIBB. We discuss this further later in this article. In our investigation, we therefore address the following specific research questions:

- RQ1: What is the impact/influence of COSE on OIBB?
- RQ2: How is the relationship between COSE and OIBB impacted on by the attitudinal loyalty of consumers?

We based this study on the reported experiences of 1,504 consumers who made regular online purchases over the previous 6 months, and who spend at least 30 minutes a day online. Saudi Arabia was chosen as the sample source region because of the unique characteristics it currently presents as an e-commerce market and because of its specific cultural characteristics. Although the Saudi Arabia is not the largest e-commerce market in the world, it is in a stable high-growth phase, with many Saudi consumers now using e-commerce. It is estimated, for instance, that a high proportion of adults in Saudi Arabia make an online purchase at least once a day (Al-Mushayt et al., 2022; Fakieh & Happonen, 2023). The study is therefore significant because its outcome demonstrates how e-commerce is influencing the Saudi consumer market. This study complements the existing literature in that the majority of current studies are based in contexts that differ from the Saudi context partly as a commercial market, but more importantly, from our point of view, in cultural terms as measured,

for example, by the well-known Hofstede dimensions (Hofstede & Hofstede, 2004). Saudi Arabia is characterized in these terms both as being a strongly collectivist culture and as having a large power distance. These characteristics are foremost among those that have been suggested to have significance for impulsive purchasing (Czarnecka et al., 2020).

Overall, the study's findings show that both the utilitarian and emotional aspects of COSE affect OIBB and that this relationship is impacted by shoppers' attitudinal loyalty toward specific e-commerce platforms. Furthermore, it provides two important contributions to the current literature: (a) it adds to the existing evidence that COSE plays a crucial role in influencing OIBB and (b) it shows that several emotional and utilitarian aspects of COSE are active in shaping the decision-making process that leads to impulse purchasing. A further significant observation is that we did not find differences in the data, when compared with previous studies, that appear to be attributable to the differences in the cultural profile of our users. We discuss possible reasons for this result.

RESEARCH HYPOTHESES

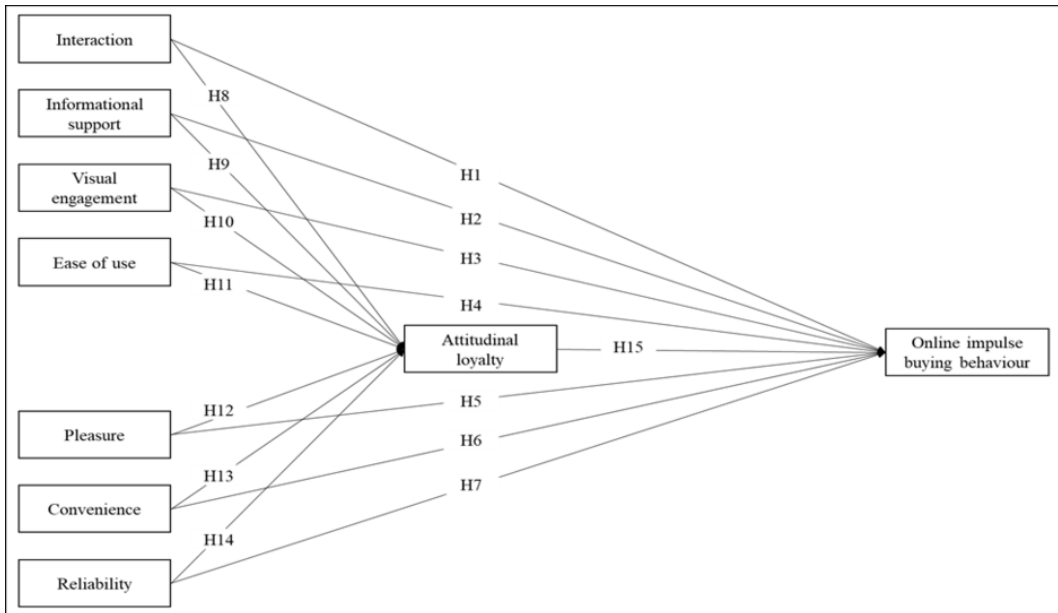
The Association Between COSE and OIBB

The criticality of customer experience to businesses, in both the offline and online retail contexts cannot be overemphasized (Gentile et al., 2007; Srivastava & Kaul, 2016). In the offline context, for instance, business owners have invested ever-greater financial resources in the development of customer experiences that encourage shoppers to spend ever-higher sums on a repeat basis over several years (Ameen et al., 2021; Godovykh & Tasci, 2020; Zhou et al., 2023). Business owners also tend to develop a positive brand image and depend on high levels of customer loyalty within the offline context (Anshu et al., 2022; Buhalis et al., 2023; Fernández-Sabiote & Román, 2012). In an online context, COSE is central in shaping and influencing customer experience. COSE is a complex entity comprising a range of utilitarian and hedonic features, such as ease of use, perceived usefulness, perceived enjoyment, cost benefits, personalization, social interaction, and convenience. Collectively, these factors combine with several others to stimulate key e-commerce outcomes, such as brand engagement, positive electronic word-of-mouth (eWOM), and repeat purchases (Bilgihan et al., 2016).

Over the years, various researchers have separated specific aspects of the COSE construct into utilitarian and emotional groupings (De Keyser et al., 2020; McLean et al., 2018; Tyrväinen et al., 2020). According to Klaus (2013), for instance, the utilitarian dimension consists of five independent aspects, and the emotional dimension consists of three. Pandey and Chawla (2018), on the other hand, categorized the utilitarian and emotional dimensions into six and four components, respectively. Thus, COSE can be seen as a multidimensional subjective process that is shaped by the interactions between shoppers and their online environment (Barari et al., 2020; Cachero-Martínez & Vázquez-Casielles, 2021; Izogo & Jayawardhena, 2018; Mohseni et al., 2018; Xu et al., 2022). In this study, we identified the commonalities across these two models and eliminated the overlap between their component parts with the objective to combine their strengths, while minimizing their weaknesses. After our examination, we arrived at something closely related to the model used by Gulfranz et al. (2022), whose three "psychological" dimensions are similar to our emotional ones, but less clearly oriented toward an affective focus.

The model of Gulfranz et al. (2022) also proposes attitudinal loyalty as a mediating variable between COSE and OIBB. This idea has attained some currency in recent literature, although its origins are obscure. We retain as a hypothesis of this current study that there is a connection between positive COSE and attitudinal loyalty that influences shopping behavior. This hypothesis is related to the work of scholars such as Gentile et al. (2007), who argue that shoppers form a psychological auto-response (either positive or negative) to e-commerce platforms, based on their interactional experience with these platforms, and this auto-response moderates their buying behavior. Other studies suggest that shoppers who form a positive response to a platform are more likely to make impulsive purchases,

Figure 1. The Conceptual Research Model



and even vice versa, but these studies employ a variety of unclearly related constructs and are often done in rather specific market contexts (Ju & Jang, 2023; Drossos et al., 2014; Zhang et al., 2022). There remain limited empirical studies that have specifically explored the association between COSE and OIBB, thus providing justification for this study.

CONCEPTUAL FRAMEWORK

The Proposed New Model

As we mentioned earlier, the proposed new model of COSE comprises a utilitarian dimension made up of four components (interaction, informational support, visual engagement, and ease of use) and an emotional dimension with three components (pleasure, convenience, and reliability). The proposed conceptual framework is illustrated in Figure 1, mapping the utilitarian and emotional components of COSE to OIBB, through the mediating component of attitudinal loyalty. In the ensuing subsections, we will look at the individual components in more detail.

Interaction

In an online context, interaction is defined as ‘the extent to which users can participate in modifying the form and content of a mediated environment in real time’ (Kim et al., 2023, p. 84). It is identified as one of the most critical drivers for adopting an e-commerce platform that can create a positive COSE experience because shopping is essentially a social experience (Anshu et al., 2022). For example, through this experience, consumers have access to a wide range of information sources, including product information and buyer reviews, and they can interact with virtual agents, such as Alexa, to inform and support them in the buying process (Du et al., 2022; Ganesh et al., 2010; Martínez Guerrero et al., 2007; Nery-da-Silva et al., 2023). However, the ability of consumers to interact both with the retailer and other consumers depends crucially on the user interface of the platform concerned. Thus, the design and functionality of the e-commerce platform can have a

significant impact on purchasing behaviors (Kaur et al., 2020; Kim et al., 2023; Lucia-Palacios & Pérez-López, 2023; Mollen & Wilson, 2010).

Interaction on a typical contemporary retailing website includes both business-to-consumer (B2C) and consumer-to-consumer (C2C) communication, as well as the availability of reviews and personalized recommendations (Ganesh et al., 2010). Interaction is vital because it promotes faster and more relevant information exchanges with and between customers via the platform. Furthermore, being able to communicate with one's social circle and other consumers gives the shopper a sense of control that influences their buying behavior (Klaus, 2013). This control could be connected to attitudinal loyalty in that repeated interactions (positive or negative) with an e-commerce platform will, over time, shape a consumer's attitudes and expectations concerning the platform (Gentile et al., 2007; P. 'Phil' Klaus & Maklan, 2013). It is therefore important that platform designers put customer needs and preferences at the very heart of the design process (Lynch et al., 2001; Novak et al., 2000).

Higher levels of interaction with e-commerce platforms shape the customer's attitudes and influence their evaluation of future interactions (Mollen & Wilson, 2010). Similarly, customers who experience good customer support will develop higher levels of confidence that relevant information will always be available to help them make purchasing decisions (Verhoef et al., 2015). This interaction may involve customized offers designed to boost customer loyalty and the prevalence of OIBB (Mollen & Wilson, 2010). It seems plausible that interaction will be continued only if it is seen to be favorable, and hence, if the customers' attitude is positive. Thus, we propose the following hypotheses:

- H1: Interaction has a positive effect on OIBB.
- H8: Interaction has a positive effect on attitudinal loyalty.
- H16: The effect of interaction on OIBB is mediated by attitudinal loyalty.

Providing shoppers with all the information they need to make informed purchasing decisions is an essential part of a successful e-commerce platform (Lim & Ting, 2012; Yang et al., 2023). The information must be easily accessible and easy to understand; it also must support the user in all the functional aspects and features of the platform, including terms and conditions as well as privacy policies (Almuqrin et al., 2023; Iglesias-Pradas & Acquila-Natale, 2023; Olsson et al., 2023; Verhoef et al., 2015). Product information should also be provided, including descriptions, prices, and reviews. Customers who can find all the information they need quickly and easily are more likely to make immediate buying decisions that are often unplanned (Olsson et al., 2023; Verhoef et al., 2015), in other words, they are more likely to exhibit OIBB. Shoppers appreciate e-commerce platforms that provide relevant and up-to-date information because this feature allows them to make informed selections. This appreciation is especially relevant when shopping for clothes online because the information must be enough to at least partially compensate for the touch-and-feel testing that is impossible in an online environment. In the Saudi context, the informativeness of a website in terms of product, pricing, and promotions has been empirically established as a key driver of satisfaction and attitudinal loyalty (Iglesias-Pradas & Acquila-Natale, 2023).

Information is regularly claimed to be an important prerequisite for online purchasing (Iglesias-Pradas & Acquila-Natale, 2023; Olsson et al., 2023; Verhoef et al., 2015). It has also been argued that the quality of information on a company's website has a direct influence on customers' perceptions of the company and its product and/or service offerings, hence shaping the construction of user attitudes about the site (Haq, 2009). Furthermore, Lim and Ting (2012) have suggested that web users frequently demand qualitative features in online informational content, such as accuracy, timeliness, and usefulness, and those websites that can meet the needs for informational support will create favorable attitudes among their audiences. This suggestion is consistent with the findings of Haq (2009), who found that consumers form favorable attitudes about sites that they believe provide quality information and solutions and unfavorable attitudes toward those that do not. Indeed, previous

research has discovered a significant and positive association between informational support and customer attitudes (Iglesias-Pradas & Acquila-Natale, 2023; Olsson et al., 2023).

Informational support also plays an important role in linking the outcomes of a purchasing experience, such as satisfaction with a successful purchase, to attitudinal loyalty thereby influencing future purchasing decisions (Goyal & Verma, 2023; Jones & Taylor, 2007; Gentile et al., 2007). If shoppers find that an e-commerce platform meets their demands by providing relevant, easily accessible information, they will establish a favorable mental frame regarding the platform in question and are more likely to use it regularly (Jones & Taylor, 2007). As with the other factors, we also wanted to test whether attitudinal loyalty thus generated mediates the tendency of informational support to feed OIBB. Thus, we propose the following hypotheses:

- H2: Informational support has a positive effect on OIBB.
- H9: Informational support has a positive effect on attitudinal loyalty.
- H17: The effect of informational support on OIBB is mediated by attitudinal loyalty.

Visual Engagement

Bressolles et al. (2014) defined visual engagement as a website's overall aesthetic appearance and vivid product presentation through which customers can explore product fit and color on visually appealing websites, resulting in a more gratifying customer experience. Visual engagement influences customers' emotive experiential states and allows them to purchase at their own pace, resulting in increased happiness and loyalty (Sundström et al., 2019; Koo, 2006). A visually attractive and intuitive platform design is therefore a critical element in creating a positive COSE (Lee et al., 2023; Liu et al., 2013). Effective design includes many important elements that can play an important role in enhancing COSE, including aesthetic aspects, such as color and style (Bressolles et al., 2014; Ramadan et al., 2023), as well as interactive features that allow the creation of virtual communities, such as messaging and chat functions (Habil et al., 2024; Martin et al., 2015). Several studies have shown that the visual aspect of an e-commerce platform can promote utilitarian and hedonic satisfaction in shoppers, thus positively impacting both their cognitive and affective states and facilitating engagement (Sundström et al., 2019; Warganegara & Babolian Hendijani, 2022). This visual impact can have a significant effect on the likelihood of making unplanned (impulse) purchases (Martin et al., 2015; Sundström et al., 2019). Because there are no physical, tangible experiences available to the online shopper, and it is impossible to stimulate all senses in an online environment (Martin et al., 2015), the focus of this research is on the visual experience.

Gentile et al. (2007) were one of the first to formally recognize the significance of visual experience in commerce, and it is clearly a crucial sensory component and a means of capturing consumers' attention. Several aspects of sight have been studied in the literature, including the psychological impacts of color, website design, ease of use, and digital merchandising. Color elicits and influences physiological and emotional responses (Cachero-Martínez & Vázquez-Casielles, 2021); warm colors elicit more feelings of attraction than cooler ones, invoking feelings of joy, vigor, and higher degrees of distraction, whereas cold colors elicit affective states, such as calmness and happiness (Bressolles et al., 2014; Ramadan et al., 2023). Blue, for example, which is associated with relaxation and tranquility, can inspire consumer creativity, whereas red, which is associated with excitement and stimulation, can stimulate analytical activity.

Bressolles et al. (2014) proposed a quality scale for websites that includes items that can be used to measure the visual experience such as design, color and style, a beautiful appearance, and easy navigation. The visual and formal features of a website, as well as the elements that are designed to entertain, are all designed to stimulate the decision to purchase (Cachero-Martínez & Vázquez-Casielles, 2021). The visual experience is determined by a combination of color utilization, graphic

and photographic quality, and assorted design features (Bressolles et al., 2014; Ramadan et al., 2023). Visually, customers prefer appealingly designed, well-organized, easy-to-understand websites, with a logical and usable structure designed to elicit a flow state in the visitors that involves a sense of aesthetic pleasure and beauty that attracts their attention. A visually appealing and coherent store, in both the online and offline contexts, can improve shoppers' emotional experience of the retail environment (Bressolles et al., 2014).

Visual engagement can also impact the affective element of attitudinal loyalty (Goyal & Verma, 2023; Jones & Taylor, 2007). If customers find that a platform is both aesthetically pleasing and intuitive to use, they are more likely to develop a positive emotional association with the platform, which is the basis of loyalty and satisfaction (Bressolles et al., 2014). This emotional association is further strengthened if consumers can find the products they like, as well as relevant information, and complete the purchasing process (Ali et al., 2021; Verhoef et al., 2015). This can reduce mental stress, time requirements, and cost. On the other hand, customers who find an e-commerce platform overly complex and difficult to use tend to develop negative attitudes toward it (Ha & Stoel, 2012; Pandey & Chawla, 2018).

Previous studies have also shown that platform design can have a significant impact on the affective aspects of COSE, while ease of use affects the cognitive side of consumers' perceptions (Klaus et al., 2023; Kuppelwieser & Klaus, 2021). The utilitarian components of COSE also impact the shopper's attitudinal loyalty toward e-commerce platforms (Almuqrin et al., 2023; Klaus, 2013; Klaus & Maklan, 2013). Thus, we propose the following hypotheses:

- H3: Visual engagement has a positive effect on OIBB.
- H10: Visual engagement has a positive effect on attitudinal loyalty.
- H18: The effect of visual engagement on OIBB is mediated by attitudinal loyalty.

Ease of Use

The perceived ease of use of an online store refers to how simple it is to navigate (Ha & Stoel, 2012; Martin et al., 2015). Clear and simple site navigation, based on principles that allow shoppers to easily achieve their goals, such as locating products and relevant information, has been shown to exert an important influence on shoppers' purchasing behavior (Ha & Stoel, 2012; Warganegara & Babolian Hendijani, 2022). It is also important to ensure that the checkout process is clear and easy to complete to promote trust on the part of the user. Facilitating the checkout process involves offering recognizable, well-known payment mechanisms, such as credit cards, debit cards, and PayPal. Together, these factors can have a significant impact on COSE and therefore increase the probability of OIBB (Ha & Stoel, 2012; Martin et al., 2015).

Previous research has shown that the easier a website is to use, the more likely it will elicit positive feelings in visitors, thereby increasing the likelihood of impulse purchases (Ha & Stoel, 2012). Conversely, if buyers find a website difficult to navigate, they are less likely to complete a purchase or, if they do, they are unlikely to be satisfied with the product or service. Furthermore, website usability is often a strong predictor of a website's perceived visual appeal; studies have indicated that the perception of an interface's aesthetic appeal is strongly connected with its ease of navigation (Warganegara & Babolian Hendijani, 2022). In other words, ease of use is a significant aspect of the visual aesthetic (Liu et al., 2013), so a website that is difficult to access is unlikely to be rated as visually appealing.

Some consumers may be intimidated by online transactions if they appear difficult to complete, so website usability is a significant aspect of service quality (Bressolles et al., 2014). Usability refers to a customer's ability to obtain information or complete a transaction with the least amount of effort (Liu et al., 2013). Thus, we propose the following hypotheses:

- H4: Ease of use has a positive effect on OIBB.
- H11: Ease of use has a positive effect on attitudinal loyalty.
- H19: The effect of ease of use on OIBB is mediated by attitudinal loyalty.

Pleasure

It is well understood that many online shoppers take emotional and affective pleasure from the online purchasing process, and this pleasure can often influence their buying decisions (Batta et al., 2023; Koronaki et al., 2023; Kranzbühler et al., 2018). Pleasure can also be enhanced by the simplicity and convenience of online shopping. Online shopping eliminates many of the frustrations of physical shopping, but can still provide similar excitement and emotional arousal that can be felt in a physical store if the platform is well designed (Becker & Jaakkola, 2020; Novak et al., 2000). Online shopping allows clients to avoid the physical and mental inconveniences of traditional shopping, resulting in both utilitarian and hedonic benefits (Kranzbühler et al., 2018). It allows customers to easily access a large choice of goods with less time and effort, thereby promoting customer satisfaction (Novak et al., 2000), and elicits pleasure and excitement via a store-like experience (Pandey & Chawla, 2018). Such enjoyment-driven buying increases the levels of happiness and loyalty experienced by shoppers (Prentice et al., 2019).

To produce a positive COSE, therefore, e-commerce platforms should be designed so that they elicit a positive and pleasurable response from shoppers when they are progressing through the searching and purchasing journey (Novak et al., 2000; Pandey & Chawla, 2018). Hedonic satisfaction can be further enhanced using interactive technologies, such as chat rooms and personal recommendation mechanisms (Becker & Jaakkola, 2020; Pandey & Chawla, 2018). Platforms (and physical stores) that are designed in such a way as to maximize pleasure can make OIBB significantly more likely (Becker & Jaakkola, 2020; Hoffman & Novak, 1996). Usually, the pleasure of using an e-commerce platform is a complex mix of the other subdimensions of COSE (both utilitarian and emotional), and the precise nature of that mix differs from shopper to shopper. However, whatever the specific mix of subdimensions is, if shoppers derive pleasure from using an e-commerce platform, then they are more likely to develop a positive mindset and a high level of attitudinal loyalty to the platform concerned (Koronaki et al., 2023; Kranzbühler et al., 2018). In the end, attitudinal loyalty is shaped by pleasure.

Furthermore, many customers are sensitive to the aesthetic pleasure derived from a visually appealing and coherent store environment that enhances their emotional feelings (Becker & Jaakkola, 2020). Congruent visual cues have a clear impact on affective reactions in this regard (Novak et al., 2000). A good online visual experience is also thought to have a favorable impact on retailer loyalty (Prentice et al., 2019). Therefore, we propose the following hypotheses:

- H5: Pleasure has a positive effect on OIBB.
- H12: Pleasure has a positive effect on attitudinal loyalty.
- H20: The effect of pleasure on OIBB is mediated by attitudinal loyalty.

Convenience

People prefer online shopping owing to the convenience or perceived utility of having products available at any time and from any location, the simplicity of comparisons, and the greater diversity and choice of products (Gulfraz et al., 2022; Pandey & Chawla, 2018). Customers who have time and accessibility constraints, as well as those who commit time to activities other than shopping, benefit greatly from this convenience (Zimmerman et al., 1992). Studies in the Indian context have

found that the ease of online access, search, and transacting has a beneficial impact on customer satisfaction (Prentice et al., 2019).

This element of COSE can be powerful because it frees shoppers from temporal and geographical restrictions, allowing them to make purchases wherever and whenever they wish. The benefits of convenience are, predictably, greater for customers who experience time pressures from other commitments, and this group is increasing rapidly (Faqih, 2016; Gulfranz et al., 2022). Research has also shown that complex or nonintuitive e-commerce platforms can have a negative effect on this sense of convenience, thus deterring customers from engaging in the buying process (Gulfranz et al., 2022; Pandey & Chawla, 2018). A platform that offers maximum convenience, therefore, has an important impact on the prevalence of OIBB (Chan et al., 2017; Pandey & Chawla, 2018).

The convenience associated with online shopping in terms of cost and time savings provides a fast and simple way to search for products, compare deals, and complete the purchase (Ali et al., 2021; Ha & Stoel, 2012). It also affects customers' attitudes because shoppers will often evaluate e-commerce platforms in terms of its time- and cost-saving parameters. They also tend to develop greater attitudinal loyalty toward platforms that they perceive as offering the greatest convenience (Ali et al., 2021; Faqih, 2016). Thus, we propose the following hypotheses:

- H6: Convenience has a positive effect on OIBB.
- H13: Convenience has a positive effect on attitudinal loyalty.
- H21: The effect of convenience on OIBB is mediated by attitudinal loyalty.

Reliability

The reliability of an e-commerce platform refers to the fact that shoppers must have confidence that the sellers will deliver on their promises in terms of accuracy, timeliness, quality, and value (Chan et al., 2017). This confidence can significantly mitigate any sense of uncertainty that can be associated with the online buying process (Chan et al., 2017; Pandey & Chawla, 2018). Another dimension of perceived reliability is related to confidentiality in that shoppers must believe that the platform will fully protect their personal information and financial data. E-commerce platforms that fail to give such assurances are unlikely to develop customer loyalty or satisfaction (Faqih, 2016; Ha & Stoel, 2012). Projecting a sense of reliability is critical in encouraging shoppers to engage with the online purchasing process and can even enhance hedonic value (Godovykh & Tasci, 2020; Klaus & Maklan, 2013). Shoppers with higher levels of trust in an online store or platform are more likely to spend significant amounts of time browsing, thus increasing the probability of making impulse purchases (Godovykh & Tasci, 2020; Ha & Stoel, 2012; Klaus & Maklan, 2013).

Reliability can also have a significant influence on the attitudinal loyalty of consumers. If shoppers believe that an e-commerce platform is reliable, they are more likely to mentally frame it in positive terms (Becker & Jaakkola, 2020; Novak et al., 2000; Pandey & Chawla, 2018). Over time, this positive view will result in higher levels of both utilitarian and hedonic satisfaction, and therefore greater attitudinal loyalty (Gulfranz et al., 2022; Ha & Stoel, 2012; Pandey & Chawla, 2018). Hence, attitudinal loyalty may act as a mediator between the emotional COSE factors, including reliability, and the tendency of the customer to engage in OIBB. The existing literature highlights the relevance of reliability to attitudinal loyalty, for example, as a crucial agent in online shopping and the creation of purchasing habits, because it reduces the perceived dangers of making an online purchase (Gefen & Straub, 2000). Reliability consists of two components: faith in people, where people assume that other people are trustworthy and that one is not afraid to be judged by others, and a reliability attitude, where interacting with trustworthy people leads to reliable results regardless of the nature of those individuals (Godovykh & Tasci, 2020). The reliability influences the attitudes and outcomes of the users (Ha & Stoel, 2012; Klaus & Maklan, 2013). As a result, we propose the following hypotheses:

- H7: Reliability has a positive effect on OIBB.
- H14: Reliability has a positive effect on attitudinal loyalty.
- H22: The effect of reliability on OIBB is mediated by attitudinal loyalty.

METHODOLOGY

The following sections provide a detailed description of the methodological approach used for this study, including its questionnaire development, sampling technique, and data collection method.

Questionnaire Development

There are many ways to develop a questionnaire (Bernard et al., 2004; Gillham, 2000). The questionnaire used in this study was adapted from those used in previous research based on their validity, reliability, and interactivity (Han et al., 2023; Skadberg & Kimmel, 2004; Yin et al., 2023). We deployed a 5-point Likert scale that ranged from 1 (strongly disagree) to 5 (strongly agree) and used several items for each construct/factor, making a total of 47 items. Table 1 shows the items of the questionnaire and their sources. Given that the research participants were native Arabic speakers, the questionnaire was translated from English to Arabic, and then back into English to cross-check the validity of the translation. This process was performed by several professionals who are fluent in both languages. Furthermore, to ensure the face validity of the questionnaire, a pilot exercise consisting of 95 e-commerce users was carried out to assess the clarity of the survey, and some changes were made as a result.

Sampling and Data Collection

To test the validity of the paper's hypotheses and conceptual framework, we used a convenience sampling technique to collect data (Bryman & Bell, 2003; Saunders et al., 2009). The target population for this study comprised adults in Saudi Arabia who use e-commerce platforms for purchasing goods and services. Although this sampling technique might have affected the representativeness of the research sample, we considered it a suitable technique owing to the difficulty in identifying and accessing a broad cross-section of e-commerce users directly (Collis & Hussey, 2003; Saunders et al., 2009). The technique has also been used in previous e-commerce studies, including Lamis et al. (2022) and Yue et al. (2023).

Overall, 20 social media celebrities/influencers who provide content and/or advertise on e-commerce platforms were contacted and asked to distribute the questionnaire to their followers; 11 agreed to distribute the questionnaire for free. They were provided with the questionnaire (created with Google Forms) with a full explanation of the purpose of the study. This method aimed to leverage the broad reach of these influencers to approximate a diverse cross-section of the e-commerce user population in Saudi Arabia. Their role was then to motivate potential participants to take part in the survey, highlighting its implications for the online service experience in e-commerce in Saudi Arabia. To reach the widest possible number of people, we did not specify users of any particular e-commerce platform, nor any type of demographic.

The data collection process itself took around 4 months of running an active advertising campaign to promote the survey and to collect data from adults across all demographic backgrounds. It is important to clarify that our sample comprised individuals from diverse nationalities, all residing within the Kingdom of Saudi Arabia. This multicultural aspect is crucial, considering Saudi Arabia's significant expatriate population, which actively participates in the local e-commerce ecosystem. Such diversity enhances the study's relevance by reflecting the varied consumer base to which e-commerce platforms in Saudi Arabia cater. By the end of this period, which ran from December 2022 to March 2023, a total of 1,556 responses had been received; 52 were considered invalid and discarded, leaving

Table 1. Constructs, Items with Factor Loadings, and Sources

Constructs/factors	Items	Factor loading
Interaction (Han et al., 2023; Skadberg & Kimmel, 2004; Yin et al., 2023).	My needs are met well by online shopping.	0.869
	I receive helpful recommendations while shopping online.	0.878
	While I am online shopping, customized advertisements and promotions appear.	0.871
	While I am online shopping, it is useful to be able to see the recommendations of other purchasers.	0.863
	I feel that I receive personalized treatment from e-commerce platforms.	0.888
Informational support (Han et al., 2023; Skadberg & Kimmel, 2004; Yin et al., 2023).	I get useful information about products available to purchase online.	0.874
	The information I receive on product features is accurate and helpful.	0.87
	The information I see about products available online provides sufficient detail.	0.875
	The information I receive about products online is enough for me to make a purchasing decision.	0.882
Visual engagement (Han et al., 2023; Skadberg & Kimmel, 2004; Yin et al., 2023).	Products online are presented in a clear and helpful way.	0.874
	I find the user interface of e-commerce platforms pleasing and intuitive.	0.864
	The design of e-commerce platforms meets high professional standards.	0.884
Ease of use (Han et al., 2023; Skadberg & Kimmel, 2004; Yin et al., 2023).	I find the information I need on e-commerce platforms quickly and easily.	0.879
	User menus are clear and easy to use.	0.879
	I find e-commerce platforms well structured and easy to navigate.	0.878
	The search tools are powerful and easy to use.	0.874
Reliability (Gefen & Straub, 2000).	Online shopping is a reliable process, with no surprises.	0.873
	In general, I feel that e-commerce platforms are honest and reliable.	0.873
	I always feel comfortable when online shopping.	0.867
	I fully trust e-commerce platforms.	0.87
Convenience (Torkzadeh & Dhillon, 2002).	I find online shopping very convenient.	0.871
	I can engage with online shopping whenever I like.	0.871
	I can engage with online shopping wherever I like.	0.884
	Online shopping is a quick and easy process.	0.879
Pleasure (Koufaris, 2002; Yin et al., 2023).	I enjoy the process of online shopping.	0.876
	Online shopping is more enjoyable than traditional shopping.	0.864
	I find browsing the internet a pleasurable activity.	0.882
Attitudinal loyalty (Cachero-Martínez & Vázquez-Casielles, 2021; Tyrväinen et al., 2020).	I rarely consider using other platforms.	0.876
	I doubt that I would change platforms while my current platform continues to offer a good service.	0.865
	I usually use the platform when online shopping.	0.874
	When online shopping, I always prefer this platform.	0.889
	I enjoy using this platform.	0.876
	In my view, there is no better platform than this for online shopping.	0.878
	This platform is easily my favorite.	0.883

continued on following page

Table 1. Continued

Constructs/factors	Items	Factor loading
OIBB (Klaus et al., 2023; Kuppelwieser & Klaus, 2021; Schafft et al., 2023).	When I see something nice, it's hard not to purchase it.	0.876
	It is sometimes hard to suppress the urge to make a purchase.	0.876
	After buying something online, I sometimes have feelings of guilt.	0.875
	I find it hard not to take advantage of online deals and bargains.	0.872
	When I see something new online, I usually feel the urge to buy it.	0.875
	I rarely stop to consider before buying something online.	0.874
	Sometimes, I make a purchase because I enjoy it, not because I need the item concerned.	0.879

1,504 valid responses. This sample size is substantial enough to provide a broad perspective on the e-commerce experience among users in Saudi Arabia.

The remaining data revealed that more than 75% of the respondents were users of the four most active e-commerce platforms in Saudi Arabia—namely, Amazon.sa (27%), haraj.com.sa (25%), extra.com (19%), and nahdionline.com (11%). These platforms are indicative of the diverse e-commerce ecosystem in Saudi Arabia, thus supporting the representativeness of our sample.

We also explored nonresponse bias by comparing the first 200 responses with the last 200 responses. The results showed no statistical difference between these groups. Table 2 summarizes the respondents' demographics, underscoring the study's aim to encompass a wide range of perspectives within the e-commerce landscape in Saudi Arabia.

RESEARCH FINDINGS

The Measurement Model

Confirmatory factor analysis (CFA) is a statistical technique that allows researchers to test the hypothesis and to determine whether a relationship exists between observed variables and their underlying constructs (Field, 2013). We used this technique to examine the model's fitness as well as convergent and discriminant validity. Regarding the goodness of fit indices for the model, the values were all found to be within an acceptable range, meeting the recommended criteria by Hair et al. (2011) and Hu and Bentler (1999). Table 3 shows the goodness of fit indices for the structural model.

Convergent validity was established by evaluating factor loadings. The results, as shown earlier in Table 1, revealed that these loadings ranged from 0.863 to 0.889, which are at the level recommended as acceptable by Hair et al (2011). Furthermore, as shown in Table 4, the average variance extracted (AVE), composite reliability (CR), and Cronbach's alpha (CA) observed values all meet the standards adequately (Field, 2013; Fornell & Larcker, 1981; Hair et al., 2011). A discriminant validity test was also conducted to help ensure that there was sufficient difference between the constructs and their metrics (Field, 2013). This test compared the square root of the AVE of each construct with the correlation between that construct. The square root of AVE should exceed the correlation values of 0.50 (Fornell & Larcker, 1981). Again, Table 4 shows that the required standards have been met in the current study.

Multi-collinearity, which appears if there is a high correlation between the independent variables (Hair et al., 2011), was also tested by checking that the values for the variance inflation factor (VIF) were less than 3, and those for tolerance were over 2, as recommended by Hair et al. (2011).

Table 2. Sample Breakdown by Key Demographics and Online Activity

Demographic details	Number (N = 1,504)	Percentage
Gender		
Male	832	55
Female	672	45
Age		
18–30	311	21
31–50	952	63
50+	241	16
Occupational category		
Student	178	12
Professional	1251	83
Other	75	5
Online activity (hours per day)		
0.5–1.0 hours	228	15
1.1–2.0 hours	355	24
2.1–4.0 hours	682	45
4+ hours	239	16
Nationality		
Saudi	566	38
Bangladesh	373	25
Egypt	193	13
India	151	10
Indonesia	98	7
Philippines	90	6
Others	33	2

Table 3. Goodness of Fit Indices

Fit measure category	Fit measure	Result	Meets recommended criteria?
Absolute fit measures	Chi-Square (χ^2/DF)	1.740	Yes (< 3.0)
	SRMR	0.891	Yes (> 0.80)
	GFI	0.942	Yes (> 0.90)
	RMSEA	0.032	Yes (< 0.05)
Parsimonious fit measures	PGFI	0.641	Yes (< 0.05)
	PNFI	0.682	Yes (< 0.05)
Incremental fit measures	AGFI	0.922	Yes (> 0.90)
	IFI	0.931	Yes (> 0.90)
	NFI	0.951	Yes (> 0.90)
	CFI	0.942	Yes (> 0.90)

Table 4. Correlations Comparison for Cronbach's Alpha (CA), Composite Reliability (CR), and Average Variance Extracted (AVE)

Constructs/factors	CA	CR	AVE	Correlations								
				1	2	3	4	5	6	7	8	9
1. Interaction	0.83	0.8	0.73	0.85								
2. Informational support	0.8	0.79	0.71	0.713	0.84							
3. Visual engagement	0.82	0.78	0.68	0.28	0.34	0.82						
4. Ease of use	0.79	0.8	0.62	0.55	0.73	0.35	0.89					
5. Reliability	0.82	0.77	0.65	0.67	0.68	0.28	0.68	0.81				
6. Convenience	0.83	0.8	0.73	0.56	0.70	0.43	0.71	0.68	0.85			
7. Pleasure	0.8	0.79	0.71	0.68	0.45	0.37	0.441	0.71	0.37	0.84		
8. Attitudinal loyalty	0.82	0.78	0.68	0.58	0.56	0.34	0.54	0.44	0.52	0.43	0.82	
9. OIBB	0.79	0.8	0.62	0.55	0.73	0.28	0.53	0.54	0.59	0.42	0.53	0.79

Note. The square root of AVE is shown in bold on the diagonal. CR, AVE, and CA were above the cut-off points of 0.7, 0.5, and 0.7, respectively.

Common Method Variance and Bias

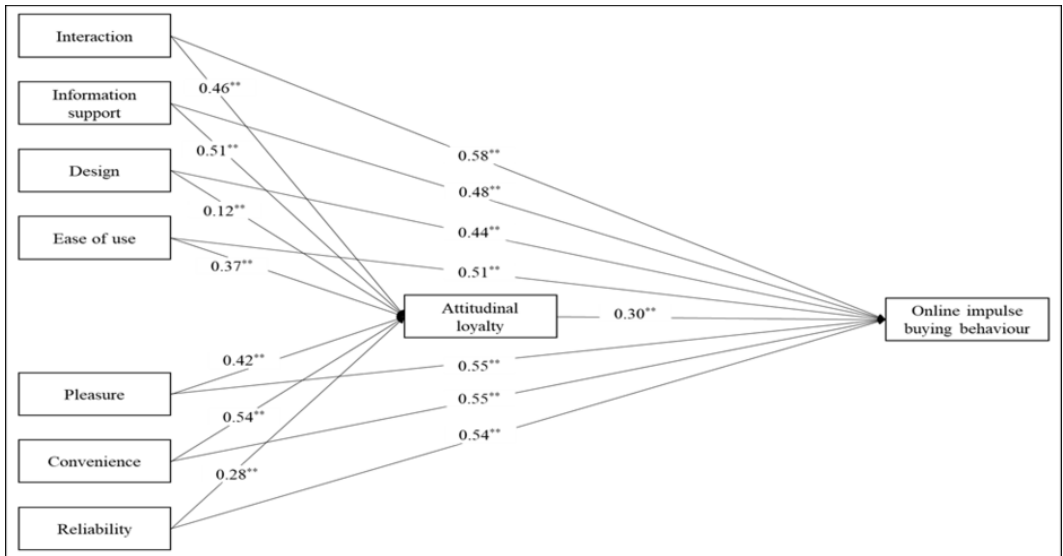
Because the data were collected from a single source, we tested for common method variance using Harman's single-factor test (Field, 2013). Common method variance is defined as a systematic error variance that stems from a common method used to measure the constructs of the study (Field, 2013). The results indicate that our data are unlikely to be affected by common method variance. We also tested for common method bias, which, although tending to be used interchangeably with common method variance, is conceptually different. Common method bias may occur when independent and dependent variables are measured within one survey, using a common response method (Kock et al., 2021). To check for common method bias, we deployed the common latent factor method proposed by Field (2013). The results show that this study falls within the recommended boundaries.

Testing the Research Hypotheses

We used structural equation modeling to examine the psychometric properties of the measurement model, and the hypotheses were tested using the same method. Figure 2 shows that interaction, informational support, visual engagement, ease of use, reliability, convenience, pleasure, and attitudinal loyalty all significantly influence OIBB, explaining 65.9% of the variance. Therefore, H1 to H7 are fully supported. Furthermore, interaction, informational support, visual engagement, ease of use, reliability, convenience, and pleasure all significantly influence attitudinal loyalty, explaining 48.9% of the variance. Therefore, H8 to H15 are also fully supported. Table 5 presents the t-values and standardized path coefficients of the model.

Another key aim of this study was to examine the role of attitudinal loyalty as a mediator. To test the level of mediation, we applied a bootstrapping procedure using PROCESS Macros 3.2 (Kock et al., 2021). Specifically, Model 4 was used to check the extent to which the attitudinal loyalty of consumers mediated between informational support, visual engagement, ease of use, reliability, convenience, and pleasure on one hand, and OIBB on the other. Table 6 shows that this mediation exists to the level that hypotheses H16 to H22 are supported with variance accounted for (VAF) values above 80% (Hair et al., 2011). In other words, OIBB is strongly mediated by consumers' attitudinal loyalty. The interpretation of this result requires some caution, however, because Figure 2 suggests that the unmediated relationships in the model are much stronger than it appears to allow for. Kock et al.

Figure 2. The Conceptual Model Showing Empirical Results



(2021) discussed cases of this kind in which the results of mediation analysis appear to conflict with those of structural equation modeling. A variety of reasons may cause this conflict. For our present purposes, we want to focus on the outcome that there is a substantial mediation effect, although it is not to the exclusion of a direct effect.

Table 5. Path Coefficients and T-Values for Full Sample

Hypothesis	Path coefficients	t-statistics	Supported/not supported
H1	0.58***	8.41	Supported
H2	0.48***	8.58	Supported
H3	0.44***	7.84	Supported
H4	0.51***	9.13	Supported
H5	0.55***	9.53	Supported
H6	0.54***	8.76	Supported
H7	0.55***	10.08	Supported
H8	0.46***	15.98	Supported
H9	0.51***	15.65	Supported
H10	0.12***	2.19	Supported
H11	0.37***	17.43	Supported
H12	0.42***	14.83	Supported
H13	0.54***	24.51	Supported
H14	0.28***	6.89	Supported
H15	0.30***	2.813	Supported

***p < 0.001.

Table 6. Mediation Effects

Hypothesis	Effect	95% confidence interval	VAF	Relationships
H16	0.29	[0.25, 0.32]	81%	Full mediation
H17	0.38	[0.39, 0.34]	80%	Full mediation
H18	0.25	[0.27, 0.36]	84%	Full mediation
H19	0.2081	[0.14, 0.23]	83%	Full mediation
H20	0.38	[0.23, 0.31]	83%	Full mediation
H21	0.23	[0.12, 0.23]	85%	Full mediation
H22	0.26	[0.24, 0.32]	84%	Full mediation

DISCUSSION AND CONCLUSION

This study set out to show that a fuller understanding of the relationship between COSE and OIBB can be gained through a further examination of the role of the utilitarian and emotional dimensions of COSE. Specifically, the study analyzed the influence of four specific utilitarian components; namely, interaction, informational support, visual engagement, and ease of use (Butt et al., 2023; Klaus et al., 2023; Pandey & Chawla, 2018) and three emotional components; namely reliability, convenience, and pleasure (Butt et al., 2023; Pandey & Chawla, 2018) in the Saudi e-commerce market. The findings suggest that both the utilitarian and emotional dimensions of COSE increase the chances of consumers engaging in OIBB. In other words, consumers with a high or positive COSE are more likely to engage in OIBB. Overall, however, the reality is more complex than this because attitudinal loyalty was identified as a mediator in the relationship between COSE and OIBB. There is little doubt that attitudinal loyalty has some role in the overall mechanism that determines the likelihood of engaging in OIBB (Ju & Jang, 2023; Chaudhuri & Holbrook, 2001; Li et al., 2020; Zhao et al., 2023), but its effect on OIBB specifically is still unclear. Šeinauskienė et al. (2015) predicted that brand loyalty would not affect impulse purchasing, but then found that in fact it did, although not strongly. However, arguments for its mediating role, in the way we have modeled it here, are usually weak. Gulfranz et al. (2022) presented one of the most cogent arguments, but it is still weak, amounting to the claim that greater attitudinal loyalty will lead to more time spent making purchases on the platform, and that this will increase the likelihood of making impulsive purchases. Clearly, this buying pattern might be true, but it depends on there being existing drivers of OIBB, and suggests that time-on-platform is really the mediating variable, whether this is caused by attitudinal loyalty or something else. Our results coincided with the view that there is a mediating role of attitudinal loyalty, and even that this role is stronger than that found by Gulfranz et al. (2022). Yet it also seems intuitively clear that people may make impulsive purchases even from platforms with which they are not very familiar, as long as they have grounds to be confident that the platform is not risky—and confidence cannot be simply the same thing as attitudinal loyalty. There are evidently issues here that merit further investigation.

Theoretically, this study contributes to the current knowledge of the relationship between customer experience and impulse buying in an online context. In particular, the study provides strong evidence that COSE is an effective predictor of OIBB, a connection for which, until now, there had been little evidence (Gulfranz et al., 2022; Anshu et al., 2022; Buhalis et al., 2023). Most previous studies have focused only on the role and importance of the utilitarian dimension (Kamoonpuri & Sengar, 2023; Koronaki et al., 2023; Verhoef et al., 2009), leaving a gap in the depth and breadth of knowledge of COSE as a holistic entity. The findings of this study also support the idea that a customer's attitudinal loyalty toward an e-commerce platform can act as a mediator between COSE and OIBB (Gulfranz et al., 2022; Mutambik, et al., 2023; Nabela & Albari, 2023). COSE influences both the affective and cognitive aspects of attitudinal loyalty (Anshu et al., 2022; Buhalis et al., 2023), thereby showing

that customers with high levels of loyalty not only have a positive mental (cognitive) perception of a specific platform but also can develop an emotional attachment. The study, therefore, enhances our existing knowledge by indicating that the influence of all utilitarian and emotional components is mediated by attitudinal loyalty (Bleier et al., 2019; Sanchez-Franco & Rondan-Cataluña, 2010; Wongsunopparat & He, 2022).

The findings of this study, therefore, provide persuasive empirical evidence to support the contention that a full and meaningful understanding of COSE depends critically on factoring in the emotional/psychological dimension, alongside the utilitarian dimension. However, as we noted earlier, although this study largely parallels that of Gulfranz et al. (2022), it differs in the cultural context in which it is set; and this draws attention to the fact that there is also a cultural dimension. The Saudi context allows us to consider the possible effects of particular cultural parameters. According to the well-known Hofstede cultural dimensions (Hofstede & Hofstede, 2004), the Saudi culture is strongly collectivist, which contrasts with individualism and implies a more cohesive group orientation. It also has a large power distance, which means that consumers may seek ways to emphasize their power, status or wealth—for example, through consumption (Albers-Miller & Gelb, 1996; Cakanlar & Nguyen, 2019). As mentioned by Redine et al. (2023), individualism seems to facilitate impulsive buying in some cultures, but not in others. Czarnecka et al. (2020) developed a sophisticated approach to understanding the widespread acceptance of global consumer culture (GCC) in which they argue that the individualism/collectivism dimension is too simplistic and needs to be distinguished as being either “vertical” or “horizontal”:

The finding of the importance of vertical orientation for the acceptance of GCC suggests that consumption-related inequality endorsed by GCC is more favorably evaluated by consumers who accept inequality and social hierarchies between individuals, or hierarchies between individuals in groups. (p. 515)

One can therefore observe that power distance aligns with verticality, and that the Saudi culture might emerge as vertically collectivist (VC). Czarnecka et al. (2020) noted that “individuals who have a ‘vertical’ orientation, regardless of whether it is individualistic or collectivistic, are interested in using symbols of GCC to emphasize being different or distinguished from other individuals (VI) and other groups (VC)” (p. 515); these researchers also found that verticality correlates with a tendency toward impulsive purchasing. Redine et al. (2023), following Lee & Kacen (2008), also noted that in collectivist cultures impulse buying is facilitated by shopping with others; perhaps in an online context this can be interpreted in terms of social commerce. Another possibility is that in a collectivist culture, a shared attitude toward a platform or service will especially enhance its use (i.e., that attitudinal loyalty could be more powerful as a mediator toward OIBB in circumstances where that attitude is shared). We are not aware of any specific examination of this hypothesis, but it is consistent with the work of Lee and Kacen (2008), as well as Kacen and Lee (2002), and with our finding of a particularly high mediation effect. Clearly, this hypothesis deserves further investigation, especially in a social commerce context.

On a more granular level, the findings of this study suggest that there are loyalty benefits when e-commerce platforms encourage interactions that focus on providing customers with easy access to relevant product information that supports considered decision-making, while also making the shopping experience simple and aesthetically pleasing (Mutambik et al., 2023; Yu, & Yu, 2022). By designing their platforms with these utilitarian requirements in mind, platform owners can significantly increase loyalty levels. Furthermore, owners should take note of the emotional dimension of ethically shaping the consumer experience, and they should implement marketing strategies that are focused on informing, rather than manipulating, customers. By ensuring that customers perceive their shopping environment to be reliable, convenient, and a pleasure to use, online platform owners can increase

the emotional attachment of shoppers which, in turn, increases the likelihood that they will use the platform regularly and habitually.

In addition to addressing the theoretical contributions of this study, we believe highlighting its practical implications is equally significant. The study's findings contribute to broader debates about environmental issues because OIBB is partially responsible for unsustainable consumerism and excessive waste (Klaus et al., 2023; Kuppelwieser & Klaus, 2021; Schafft et al., 2023). It is therefore both ethically and practically advantageous, both to individuals and to society at large, to encourage trading firms to develop strategies that mitigate impulse buying tendencies in customers. Such features and functions can take several forms, such as reminding shoppers to take a moment to reflect on their needs before making a purchase and emphasizing the importance of having specific objectives in relation to spending. Of course, there is a fine line to be drawn here in that e-commerce platforms and individual stores are not the moral guardians of their customers, and customers have the right and the responsibility to look after themselves and make their own decisions. However, this is not just an ethical issue; minimizing OIBB is in the interests of both the consumer and the trader. The implication of this for the Saudi context is that e-commerce platforms and individual merchants should adopt ethical strategies that do not encourage impulse buying. However, the industry at large has yet to adopt this philosophy. One highly popular e-commerce platform, for example, provides actionable advice on tactics that can be used by retailers to increase sales by encouraging impulse buying.

LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

Several factors might have the potential to limit the generalizability of the findings of this research. The study's sample includes a diverse range of nationalities and cultural backgrounds, although the participants share a specific cultural environment (Saudi Arabia). This sample may have introduced numerous biases (e.g., socioeconomic and regulatory) relating to generalizability or to interpretation in relation to cultural factors. Future research with a larger sample size is thus advised, as well as one that is more tailored to investigating specific cultural hypotheses. This study does not consider differences in consumer perceptions of service experiences across industries. Studies examining cross-industry variances would increase confidence in the dimensions presented in this study and could eventually be used to construct industry-specific benchmarking tools. Repeating the study with longitudinal data would bolster claims for the conceptual model's predictive abilities based on observed customer behavior. Furthermore, the study uses a cross-sectional approach that was carried out at a fixed point in time, thus contradicting the fact that the relationship between COSE and the tendency to engage in OIBB is dynamic. Future research could use a longitudinal approach to investigate the evolution of relationships through time to find behavioral patterns that could aid in the creation of competitive advantage. Finally, in light of the rising use of other internet-enabled devices, such as iPads and smartphones, future studies should investigate whether and how these devices influence OIBB.

FUNDING

This research was funded by the Researchers Supporting Project number (RSP2024R233), King Saud University, Riyadh, Saudi Arabia.

INSTITUTIONAL REVIEW BOARD STATEMENT

The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Institutional Review Board (Human and Social Researches) of King Saud University.

INFORMED CONSENT STATEMENT

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

DATA AVAILABILITY STATEMENT

Data are available on request owing to restrictions of privacy.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

PROCESS DATES

Received: January 24, 2024, Revision: March 8, 2024, Accepted: May 7, 2024

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