Current Psychology (2023) 42:32524–32539
https://doi.org/10.1007/s12144-022-04230-4

How to motivate consumers' impulse buying and repeat buying? The role of marketing stimuli, situational factors and personality

Lingbo Tan[1] · Haiyu Li[1] · Yu-Wei Chang[2] · Jiahe Chen[3] · Jia-Wen Liou[2]

Accepted: 29 December 2022 / Published online: 18 January 2023

Abstract

As e-commerce continues to develop rapidly, customer purchase behavior is increasingly motivated by multiple stimuli. However, consumers often find that the perceived value is lower than expectation after impulse buying and thus are reluctant to repeat these purchases. This study explored how to stimulate repeat buying after impulse buying. On the basis of the stimulus-organism-response framework and consumption impulse formation and enactment framework, a research model for investigating the factors affecting the willingness to impulse buy and the willingness to repeat buy was developed. Within the developed framework, the marketing stimuli, situational factors, and personality were the stimulus, consumer value was the organism, and the willingness to impulse buy and the willingness to repeat buy were the responses. We also examined the relationship between the willingness to impulse buy and the willingness to repeat buy. A sample of 315 Chinese consumers was recruited, and structural equation modeling was used to analyze the hypotheses. The results revealed that anticipated price, anticipated merchandise diversity, value consciousness, and coupon proneness were significantly positively related to consumer value, which in turn had a significant positive influence on the willingness to impulse buy and repeat buy. Moreover, the willingness to impulse buy can drive the willingness to repeat buy. These results may be used by companies to attract new consumers and increase customer loyalty.

Keywords Consumption impulse formation and enactment framework · Stimuli-organism-response framework · Impulse buying · Repeat buying

Introduction

E-commerce has boomed as Internet and mobile communication technologies have developed. The online-to-offline (O2O) model is the latest trend in e-commerce. Numerous technologies are increasingly affecting consumer shopping behavior in e-commerce. To grow online businesses, many businesses attract consumers to their online shops by distributing e-coupons on apps and by offering discounts. The e-commerce industry, including the e-retail market, online travel agencies, and online catering, has launched online shopping festivals and implemented unique Internet marketing plans to attract consumers (Chen & Li, 2020; Köchling, 2021; Li et al., 2019, 2020). These businesses distribute coupons online and offer free trials to consumers. These discounts, coupons, and other factors such as merchandise diversity may affect consumer value and consumer purchase behavior.

More and more increase consumers' impulse buying and repeat buying by improving consumer value. Consumer value refers to consumers' perception of the worth of the product or service that they need (Zeithaml, 1988). Consumer value is the key to explore the factors affecting consumer purchase behavior, especially for impulse buying and repeat buying. According to previous research, consumer value positively influences impulse buying (Chen et al., 2022; Zhang et al., 2022) or repurchase intention (Zang et al., 2022). Therefore, consumer value influences consumer purchase behavior.

Two categories of purchase behavior are impulse buying and repeat buying. Previous researchers investigating

✉ Yu-Wei Chang
nickychang@nutc.edu.tw

Jiahe Chen
Jiahe.Chen@westernsydney.edu.au

[1] School of Economics and Management, China Jiliang University, Hangzhou 310018, China

[2] Department of Business Management, National Taichung University of Science and Technology, Taizhong 404, Taiwan

[3] School of Business, Western Sydney University, Locked Bag 1797, Penrith, NSW 2751, Australia

impulse buying have reported that discounts and coupons (Park et al., 2012) and website branding (Chang & Su, 2008) were the primary drivers of impulse purchases. However, some researchers investigating repeat buying have reported that consumer loyalty to previously purchased or familiar products was the key factor in purchases (Kato & Hoshino, 2020). Given the above discussion, the factors affecting consumer value could have a positive impact on purchase intention (Chen & Li, 2020; Shang & Zheshi, 2020; Zang et al., 2022).

Many studies have focused on either impulse buying (Chan et al., 2016; Chen & Yao, 2018; Yang et al., 2021) or repeat buying (Ping et al., 2021; Shang & Zheshi, 2020). Actually, after the impulse buying, consumers rate the purchase products. If the consumers' perceived value about the commodity meets their needs and wants, their repeat buying will be increased. However, no study has investigated both impulse and repeat buying behaviors in the same framework. Considering that consumers often find that the perceived value is lower than expectation after impulse buying and are unwilling to repurchase, leading to a loss of consumers and decreased sales and profits. This relationship between impulse and repeat buying has not been examined. Because repeat buying is key for businesses aiming to increase sales and profits, this relationship must be elucidated.

This study investigated the factors motivating consumer impulse buying and repeat buying. The consumption impulse formation and enactment (CIFE) framework and stimuli-organism-response (S–O-R) framework were used to develop a research framework. The CIFE framework was used to classify the factors influencing consumer value, including marketing stimuli, situational factors, and personality (Lichtenstein et al., 1993). The S–O-R framework was adopted to generalize the incentives affecting consumer intention and to connect the relationship between impulse and repeat buying. In particular, this study addressed the following research questions:

(1) How do marketing stimuli, situational factors, and personality influence consumer value?
(2) How does consumer value affect consumer purchase intention?
(3) How does willingness to impulse buy influence willingness to repeat buy?

This study contributes to both theory and practice. To explain the factors affecting impulse buying and the factors stimulating repeat buying following an impulse purchase, a research framework was developed based on the CIFE and S–O-R frameworks. Because consumer attitudes toward product price and quality are critical (Kim & Han, 2020; Kim & Peterson, 2017), we also included consumer personality (i.e., value consciousness and coupon proneness) as a factor. These findings may help enterprises understand and master consumer psychology to formulate corresponding marketing strategies for increasing profits.

This paper is structured as follows. Section 2 summarizes the relevant literature, including that on the S–O-R and CIFE frameworks. Section 3 describes the research framework and develops the research hypotheses. Section 4 introduces the research methodology, and Section 5 presents the results, which are discussed in Section 6. Section 7 summarizes the implications for research and practice. Section 8 summarizes the conclusions and limitations of the study.

Literature review

S–O-R framework

The S–O-R framework proposed by Mehrabian and Russell (Mehrabian & Russell, 1974) has been influential in developing psychological perspectives on human behavior. The framework suggests that environmental stimuli can trigger an individual's (organism's) internal cognition, in turn generating positive or negative behaviors in response to the stimuli (Mehrabian & Russell, 1974). Thus, the S–O-R framework is also used to investigate consumer behavior (Chen & Yao, 2018; Chen et al., 2022; Zhou et al., 2022; Zhu et al., 2020).

In S–O-R, the stimuli can be internal or external factors that can affect consumer cognition and emotion (Chen et al., 2022). External stimuli refer to the motivations derived from the external environment, while internal stimuli refer to the motivations at the psychological level (Kimiagari & Malafe, 2021). Scholars have proposed that internal and external stimuli affect impulse buying and repeat buying (Chen & Yao, 2018; Huang, 2016; Kimiagari & Malafe, 2021). In this study, marketing stimuli and situational factors are external factors from the marketing environment, while personality is considered as an internal factor of psychological motivations. Consumers are motivated to make purchases not only by coupons and discounts but also by personal internal needs. For example, consumers are inclined to purchase low-priced or high-value products (Su et al., 2014). Such personalities drive their consumer behavior. In addition, the CIFE framework is mainly applied to explain the process of impulse buying from stimulating cognitive and volitional mechanisms (Dholakia, 2000). Since marketing stimuli, situational factors, and personality are also cognitive and volitional factors, this study introduces the CIFE framework to organize the factors affecting impulse buying and repeat buying.

Organism in the S–O-R framework refers to consumer value, which is defined as consumers' internal evaluation about products. Studies have suggested that this definition indicates that consumer value is a multidimensional

structure comprising five consumption value dimensions: social, emotional, functional, epistemic, and conditional value (Sheth et al., 1991). Sweeney and Soutar (2001) proposed replacing epistemic and conditional value with monetary value. Chuah et al. (2022) found that co-creation value significantly influences the willingness to use on the basis of Sheth et al. (1991). On the other hand, the response is the resulting consumer behavior (Mehrabian & Russell, 1974). Considering impulse buying and repeat buying as consumer behaviors, the S–O-R framework is applied to explore the factors affecting consumer behaviors. According to previous research, consumer value has a direct impact on impulse buying and repeat buying (Chen & Li, 2020; Shang & Zheshi, 2020; Zhang et al., 2022). Price (Kimiagari & Malafe, 2021), promotion incentive information (Zhang et al., 2022), and value consciousness (Muratore, 2016) have an indirect influence on the willingness to impulse buy via consumer value. Therefore, consumer value is proposed as a link between impulse buying and repeat buying based on the S–O-R framework.

The S–O-R framework has been applied to marketing strategies (Belk, 1975). Some researchers have studied purchase intention using the S–O-R framework (Chopdar & Balakrishnan, 2020; Chopdar et al., 2022; Nam et al., 2020; Zhou et al., 2022; Zhu et al., 2020). Following the emergence of e-commerce, some scholars have used the S–O-R framework to analyze the factors affecting consumer shopping behavior. Chopdar and Balakrishnan (2020) used perceived ubiquity, contextual offering, visual offering, and app incentives as stimulus (S), consumer value and impulsiveness as the organisms (O), and satisfying experience and willingness to repeat buy as responses (R). The results indicated that perceived ubiquity and m-commerce apps (S) are influencing factors of impulsiveness and consumer value (O), respectively, whereas impulsiveness (O) has a negative effect on the willingness to repeat buy (R) and positively affects satisfying experience (R). In addition, Huang (2016) focused on affective (marketing stimuli) and reactive (situational stimuli) factors, which have strong effects on the formation of user internal processes (O) and drive the final response for impulse buying. Accordingly, Chen and Yao (2018) adopted the S–O-R framework to investigate the effects of factors for impulse buying and stated that ubiquity, ease of use, information exchange, discounted price, and scarcity (S) all influence consumer positive affect (O), which is positively related to impulse buying behaviors (R).

In this study, we investigated the factors that influence impulse buying and repeat buying. Marketing stimuli, situational factors, and personality were regarded as the stimulus, and consumer value was regarded as the organism. Customer willingness to impulse buy and willingness to repeat buy were considered the responses. Furthermore, the relationship between the willingness to impulse buy and the willingness to repeat buy was further analyzed.

CIFE framework

The CIFE framework proposed by Dholakia (2000) primarily involves the cognitive and volitional mechanisms of the impulse buying process. The CIFE framework indicates how marketing stimuli, situational factors, and personality influence consumption impulses. A marketing stimulus is the presentation of a product to a customer that can be controlled by a marketer (Dholakia, 2000; Kimiagari & Malafe, 2021). Situational factors are the environmental, personal, and social factors involved with a particular consumption occasion (Belk, 1975). Situational factors, environmental or emotional, are related to the environment and stimulate individuals to increase or decrease purchasing. Positive emotions encourage consumers to make impulse buys, whereas negative emotions discourage impulse buying (Dholakia, 2000). Moreover, personality comprises discrete, independent traits that do not interact or exert interrelated influences on product or brand preferences (Sparks and Tucker, 1971).

The CIFE framework can be applied to explain the factors affecting impulse buying. Yang et al. (2012) used three factors (marketing stimuli, trait impulsivity, and situational factors) of impulse buying to explain self-control for avoiding impulse buying. Xu and Huang (2014) borrowed the factors of the CIFE framework to explore the antecedents of online impulse buying and found that price discounts (as stimuli) can trigger impulse buying. Kimiagari and Malafe (2021) used marketing stimuli, situational stimuli as external stimulus and individual characteristics as internal stimuli. They found that external and internal stimuli can boost impulse buying through social media platforms. Venkatesh et al. (2022) found that value consciousness affects online shopping behaviors; thus, personality as an internal stimulus influences consumer behavior (Kimiagari & Malafe, 2021).

The CIFE framework in this study is related to the marketing stimuli, situational factors, and personality. Considering the definition of stimuli, marketing stimuli and situational factors are external stimulus and personality is considered as internal stimuli (Kimiagari & Malafe, 2021). This study proposed incentive marketing strategies including price, coupon, and discount strategies for exploring the factors affecting consumer value. We attempted to set anticipated price, anticipated coupons, and anticipated discounts as marketing stimulus that affect consumer value, willingness to impulse buy, and willingness to repeat buy. Situational factors in this study included anticipated merchandise diversity. Situational factors are related to specific consumption contexts, and merchandise diversity is a vital element in the consumption environment (Meehee et al., 2018); thus, anticipated merchandise diversity was regarded as the situational factor

to investigate the correlation between anticipated merchandise diversity and the willingness to impulse buy or repeat buy. In this framework, personality has two constructs: value consciousness and coupon proneness. Because individuals typically judge the value of a product through an intrinsic value evaluation system, the correlation between these two factors and consumer value was investigated. Thus, the CIFE framework was used to analyze the aforementioned factors affecting consumer value, willingness to impulse buy, and willingness to repeat buy.

Research hypotheses and framework

Based on the S–O-R and CIFE frameworks, this study attempted to identify the factors affecting the willingness to impulse buy and the willingness to repeat buy. In this model (Fig. 1), marketing stimuli (i.e., anticipated price, anticipated coupons, and anticipated discounts), situational factors (anticipated merchandise diversity), and personality (i.e., value consciousness and coupon proneness) stimulate consumer value for product evaluations, which increases their behavioral intention to impulse buy and repeat buy.

Anticipated price was measured as a subjective consumer perception. Anticipated price indicates the idea that consumers "get what they pay for" (Rao & Monroe, 1989). Consumer price perceptions are related to the internal price. Generally speaking, consumers use internal prices to evaluate the market prices of commodities. If consumers receive more information on price variations in the market, they set wider price ranges for products. Hence, anticipated price is affected by internal prices (Chris & Lichtenstein, 1999).

Price, which refers to a monetary loss, is a key factor of value (Varki & Colgate, 2001). For consumers, price indicates the sacrifice required to purchase a product. Thus, price is clearly a factor influencing consumer value. Oh (2000) indicated that price fairness has a strong relationship with consumer value. Price can promote consumer purchase or repurchase of a target product by increasing the value of a commodity (Dodds et al., 1991). If the price of a product exceeds its value, consumers are less likely buy it. Furthermore, due to actual income levels and preferences, the majority of consumers choose to purchase products with a price that matches the product's value. Hence, we proposed hypothesis H1:

H1: Anticipated price significantly influences consumer value.

"Anticipated coupons" refers to the consumer evaluation of a cash discount that they receive from a supplier (Moore & Benbasat, 1991). Coupons can be physical or electronic. In e-commerce, firms have developed consumer-centric marketing by using mobile coupons for clients to increase profits. Coupons also increase sales to consumers who do not purchase using the coupons (Bawa & Shoemaker, 1989). If a coupon is limited to members, consumers are driven to register as members during a transaction, thereby increasing the consumer value of the commodity. Coupons also increase the conversion rate from potential consumers to real customers.

Moreover, the face value of a coupon affects consumer value through the cognitive evaluation of the coupon. In particular, coupons with high face value increase consumer cognitive evaluations of the target product (Wierich, 2014). Furthermore, if the minimum price required by the coupon meets consumer expectations, consumer evaluations of the anticipated coupons increase. Chiou-Wei and Inman (2008) reported that consumers are likely to consider the availability of coupons when purchasing products. Thus, coupons can increase consumer value. Therefore, we proposed hypothesis H2:

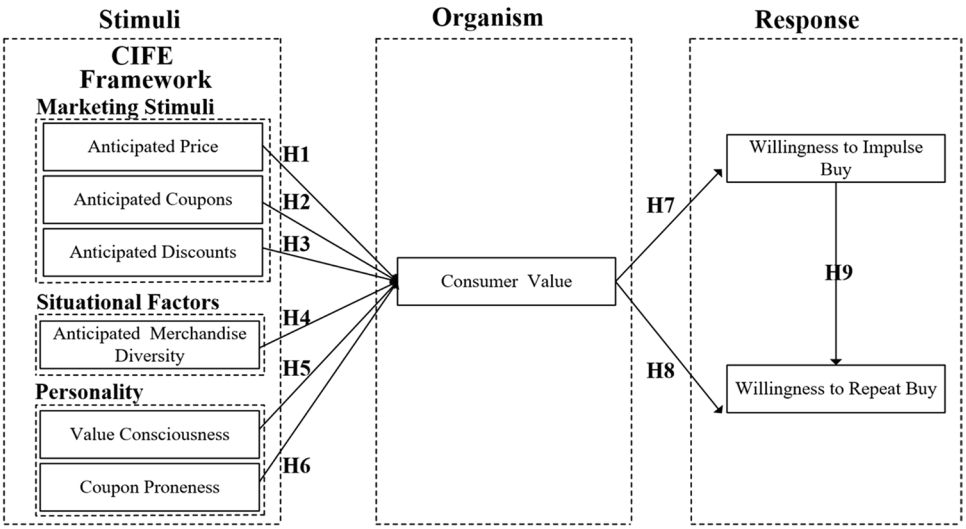

Fig. 1 Research model

H2: Anticipated coupons significantly influence consumer value.

Anticipated discounts are measured as the perceived relative frequency of price deals for the focal brand (Yoo et al., 2000). Shops often publicize discounts as part of their marketing activities to attract potential and loyal consumers. Consumer anticipation of discounts is influenced by the magnitude of the discount (Gong et al., 2019). The effects of anticipated discounts differ between essential and nonessential consumption (Cai et al., 2016). Low discounts increase the value of the essential purchase, increasing purchase intention, whereas low discounts decrease consumer value of nonessential purchases, thereby reducing willingness to buy. Therefore, anticipated discounts are a key element in evaluating product value.

If merchants increase discounts as the total purchase amount increases, both the quantity and the value of the purchased products increase. However, Lee and Chen-Yu (2018) found that discounts have a positive effect on consumer value. Discounts are gifts for loyal customers (Park & Lennon, 2009). Discounts increase the consumer value of the target items for previous consumers of a brand. High discounts attract the attention of new consumers and maintain the loyalty of previous consumers. Hence, we proposed hypothesis H3:

H3: Anticipated discounts significantly influence consumer value.

Anticipated merchandise diversity refers to the variety of choices consumers have when purchasing products (Park et al., 2012). Merchandise diversity has a positive influence on satisfaction (Zhao et al., 2019). Nam et al. (2020) proposed that single-person households care about the merchandise diversity online. Because merchandise diversity affects consumer enjoyment of shopping, merchandise diversity especially drives hedonic consumers to become involved in the process of selecting products. Shops can regularly launch new products to meet consumer needs, thereby enhancing their competitiveness in the market. The validity of merchandise diversification has been verified (Chopdar et al., 2022; Meehee et al., 2018); thus, product diversification can significantly increase consumer value.

Merchandise diversity influences the purchase of products by consumers by causing shopping to be a more interesting experience and promoting consumer enjoyment of the selection process. Therefore, consumer value is influenced by pleasure. This is consistent with the view that the consumer shopping experience affects the consumer value of a store (Kerin et al., 1992). If a store meets consumer needs for product types, consumers have an improved shopping experience and an enhanced value perception of the store. Thus, we proposed H4:

H4: Anticipated merchandise diversity positively influences consumer value.

Value consciousness is defined as the desire to pay low prices subject to some quality constraints (Lichtenstein et al., 1990). The definition is consistent with the concept of the price paid for quality. Value-conscious consumers focus on the value of product use (Lichtenstein et al., 1990). Based on their evaluation of value, consumers ultimately choose products that meet their quality requirements. Naturally, due to product quality management, most consumers feel that the quality of products matches the price value on a psychological level. Consumers with different value consciousness have different perceived product values. Luxury-conscious consumers perceive luxury as more valuable than low-end durable goods. By contrast, value-conscious consumers think low-end durable goods are more valuable and first choose these products. Value consciousness dominates commodity evaluation and is thus the primary perception of consumers during a purchase.

Value-conscious consumers are more likely to evaluate products by their consumer value. This is consistent with Lichtenstein et al. (1990), who stated that individuals who perceive value as largely influenced by the intrinsic ability of products to satisfy needs are likely to be value conscious. Consumers purchase a product if its consumer value exceeds its actual price. Conversely, consumers will not buy a product if its actual price exceeds its consumer value. Hence, we proposed H5:

H5: Value consciousness significantly influences consumer value.

Coupon proneness is defined as an increased propensity to respond to a purchase offer because an available coupon positively affects purchase evaluations (Lichtenstein et al., 1990). Zheng et al. (2017) proposed that coupon-prone consumers pay more attention to psychological benefits. This is similar to the previous view that coupon-prone individuals attach importance to gains rather than losses (Guimond et al., 2001). E-coupons are a common marketing method. Merchants attempt to improve sales by issuing e-coupons to attract coupon-prone consumers. As such, profits are key for coupon-prone consumers when choosing commodities.

Guimond et al. (2001) reported that coupon proneness has a significant influence on consumer value. Consumers focus on the process of choosing coupons and the value of coupons. Because coupon-prone consumers enjoy the process of using coupons, coupons are more attractive to these consumers and increase their consumer value (Lichtenstein et al., 1990). Coupon-prone consumers are more likely to place orders simply because of a good deal (Zheng et al., 2017). This is consistent with the previous view that coupon-prone

consumers prioritize the existence of coupons as opposed to the price of alternatives when purchasing products (Zeithaml, 1988). Therefore, we proposed H6:

H6: Coupon proneness significantly influences consumer value.

A willingness to impulse buy is defined as the propensity to immediately purchase a product based on a sudden desire with limited consideration of information or alternatives (Rook, 1987). Deriving excellent value for money increases consumer enjoyment. Because the willingness to impulse buy is mainly due to emotional inspiration, the positive emotions associated with consumer value strongly promote impulse buying. Thus, value shopping as well as enjoyment are positively related to impulse buying (Bandyopadhyay et al., 2021). Yang et al. (2021) also argued that the consumer value of consumers toward entertainment and pleasure is positively related to purchase intention.

Consumer value significantly affects the willingness to impulse buy (Cheung et al., 2021; Souza et al., 2020). Because consumers have their own internal product evaluations, they have different consumer values for a product. If consumer minds are stimulated by lower prices, discounts, or coupons, the aforementioned factors increase their willingness to impulse buy. Moreover, individuals with low self-control or who are tempted by preferential prices tend to have an increased willingness to impulse buy (Baumeister, 2002). Hence, we proposed H7:

H7: Consumer value significantly influences the willingness to impulse buy.

Willingness to repeat buy refers to user intention to continue purchasing products (Weber, 2001). Generally speaking, consumer purchase intentions are affected by complex factors. Consumers typically evaluate products based on their value perceptions. Consumer value includes intrinsic consumer evaluation of a product's price, quality, and other aspects of its usefulness. Individuals from different environments have different internal evaluations of target products. If the consumer value of a product is lower than its value due to high price or low quality, customers are likely to have decreased purchase intention (Chang & Wildt, 1994). If consumer value is equal to the face value of the product, consumers tend to buy and to repeat buy. If the attributes of a product match consumer expectations and consumer value, their willingness to repeat buy increases (Shang & Zheshi, 2020). Sullivan and Kim (2018) also indicated that obtaining value is the main stimuli for a willingness to repeat buy. Hence, we proposed H8:

H8: Consumer value significantly influences the willingness to repeat buy.

Impulse buying is a prerequisite for repeat buying. Consumers who buy impulsively have a high probability of transforming into potential repurchase customers. Consumers who initially purchase a product on impulse are likely to have been stimulated to make that purchase due to many factors. If the performance of the product can meet consumer needs and improves their value for it, consumers are prone to repurchase subsequent to the impulse buy. Therefore, impulse buying has a significant influence on the willingness to repeat buy (Chopdar & Balakrishnan, 2020). With the rapid development of promotions and product diversification, the likelihood of transitioning from making an impulse buy to being willing to repeat buy is also increasing.

The increase in impulse buying provides more opportunities for repeat buying. After consumers buy a certain product impulsively, they are more likely pay attention to the development of the product. Then, focusing on the development process of the product will enable consumers to find information about product discounts, new product development, product concept and other aspects, so as to increase the probability of their interests in the product and improve the possibility of repeat buying. In particular, the convenience of online shopping not only stimulates consumers to impulse buy, but also provides consumers with more opportunities to pay attention to the development of products purchased impulsively. Studies have demonstrated that impulse buying by Internet shopping users had a significant impact on the willingness to repeat buy (Goel et al., 2022). Hence, we proposed H9:

H9: The willingness to impulse buy significantly influences the willingness to repeat buy.

Research methodology

Data collection

A survey-based methodology was used to explore how marketing stimuli, situational factors, and personality influence consumer value, which in turn influence the willingness to impulse buy and the willingness to repeat buy. The respondents to the questionnaire were consumers who purchased products at one of the chain stores of a drink brand. The brand distributes coupons to its customers and provides a free trial to new customers who sign up on their app for the first time. As orders for the brand increase, the brand increases the number of coupons to maintain repeat buying by consumers.

To stimulate consumer willingness to impulse buy, the brand provides new customers with discounts and coupons with a larger face value than those that old customers receive. In general, the brand provides coupons and

discounts of different levels for consumers with different preferences and spending habits. These customers include students, teachers, and workers. In the survey, an online or offline questionnaire about the brand was sent to consumers through WeChat or physical stores, respectively. Respondents were rewarded with 10 RMB credited to their phone bills. Data collection had multiple phases. First, the questionnaires were distributed to 500 respondents, and 315 valid responses were returned; 185 of the returned questionnaires were invalid and were removed from the sample. All of the respondents had experience making purchases at the brand. A majority of the 315 respondents were women (81.2%). The reason for the higher proportion of women is that women prefer coffee to men (Adan et al., 2008) and females are more inclined to buy coffee drinks in chain stores that is consistent with Kim (2019), who found that average of women's preference to buy coffee in large coffee chains (5.59) is higher than average of men's preference to buy coffee in large coffee chains (3.22). Most respondents were 18–25 years old (93.7%). Most had a bachelor's degree and were typically school students, professionals, or technical workers. Demographic statistics are detailed in Table 1.

Measures

Anticipated price, coupon, discount, and merchandise diversity measures were sourced from Chiu et al. (2014), Achadinha et al. (1994), Chen and Yao (2018), and Chiu et al. (2014), respectively. Value consciousness and coupon proneness were sourced from Lichtenstein et al. (1993). Consumer value was sourced from Sirdeshmukh et al. (2002). Willingness to impulse buy was sourced from Verhagen and van Dolen (2011), and willingness to repeat buy was sourced from Venkatesh et al. (2003) and Lam (2007). Before sending out the formal survey, this study invited 10 professionals including marketing specialists, psychologists, and 10 regular consumers of the brand to check the contents of the questionnaire. According to their suggestions, the questionnaire was revised several times in terms of the length, format, wording of items. Following the guideline of 7-point Likert scale, the measures in the questionnaire range from strongly disagree (1) to strongly agree (7). After the formal questionnaire was confirmed, the English questionnaire was translated into Chinese, and back-translation was used to ensure its accuracy (Mullen, 1995). All measurement items and the descriptive statistics of the questionnaire were provided in Appendix 1 and Appendix 2.

Table 1 Demographics

Measures	Items	Frequency	Percent (%)
Gender	Male	59	18.8%
	Female	256	81.2%
Age	Under 18 years	4	1.3%
	18–25 years	295	93.7%
	26–35 years	11	3.5%
	36–45 years	3	0.9%
	46–55 years	2	0.6%
Education	Senior high school	3	0.9%
	College	21	6.7%
	Bachelor	260	82.6%
	Master	29	9.2%
	Doctor	2	0.6%

Data analysis

The research framework was developed based on the S–O-R and CIFE frameworks. Structural equation modeling (SEM) was used to analyze the framework using SmartPLS 3.0. Due to the small sample size and the complexity of the framework, PLS (partial least squares) was a suitable method for our research.

The PLS-SEM approach was used as a framework-testing tool to effectively test the hypotheses and relationships between constructs. This approach includes measurements and structural frameworks. The relationships between endogenous and exogenous variables were evaluated based on a structural framework, and the convergent and discriminant validity of the variables was tested based on the measurement framework. The analyzed results may help companies to gain insight into the factors in the framework that can enable them to formulate appropriate marketing strategies.

Results

Assessment of the measurement framework

The convergent and discriminant validity of the constructs and their items were tested. Composite reliability (CR) and average variance extracted (AVE) were used to assess the convergent validity of the measurements (Fornell & Larcker, 1981). Table 2 presents the Cronbach's alpha values, which ranged from 0.82 to 0.93 for all constructs and thus exceeded the recommended level of 0.7, indicating that all constructs had acceptable reliability. CR is the reliability of a composite variable. CR was assessed with standardized factor loadings and error variances. The CR for all constructs was 0.88–0.96, which is greater than the recommended level of 0.7 for all constructs.

Table 2 reveals that the AVE for all constructs was 0.61–0.88, exceeding the recommended level of 0.5 (Fornell & Larcker, 1981). Table 3 presents the discriminant validity of all constructs. The correlation coefficients between constructs were 0.78–0.94, higher than the correlations between

Table 2 Reliability and convergent reliability

Construct	Item	Factor Loading	Cronbach's Alpha	Rho A	Composite Reliability	Average Variance Extracted (AVE)
Anticipated Price (AP)	AP1	0.88	0.86	0.87	0.92	0.79
	AP2	0.93				
	AP3	0.85				
Anticipated Coupons (AC)	AC1	0.83	0.82	0.83	0.88	0.66
	AC2	0.86				
	AC3	0.83				
	AC4	0.72				
Anticipated Discounts (AD)	AD1	0.93	0.89	0.88	0.93	0.81
	AD2	0.92				
	AD3	0.86				
Anticipated Merchandise Diversity (AMD)	AMD1	0.90	0.82	0.83	0.90	0.74
	AMD2	0.85				
	AMD3	0.83				
Value Consciousness (VC)	VC1	0.70	0.87	0.87	0.90	0.61
	VC2	0.77				
	VC3	0.79				
	VC4	0.79				
	VC5	0.79				
	VC6	0.82				
Coupon Proneness (CP)	CP1	0.80	0.88	0.89	0.91	0.68
	CP2	0.83				
	CP3	0.84				
	CP4	0.79				
	CP5	0.85				
Consumer Value (CV)	CV1	0.94	0.89	0.90	0.93	0.83
	CV2	0.93				
	CV3	0.85				
Willingness to Impulse Buy (WIB)	WIB1	0.79	0.86	0.92	0.92	0.78
	WIB2	0.95				
	WIB3	0.91				
Willingness to Repeat Buy (WRB)	WRB1	0.91	0.93	0.93	0.96	0.88
	WRB2	0.97				
	WRB3	0.94				

each construct and other constructs. Thus, the constructs in this study had both convergent and discriminant validity.

Assessment of the structural framework

SEM was used to test the hypothesized relationships among the nine constructs (Fig. 2). The results revealed that anticipated price significantly influenced consumer value ($\beta = 0.457$, $t = 9.639$, $p < 0.001$); thus, H1 was supported. However, the influence of anticipated coupons and discounts on consumer value was nonsignificant. Hence, H2 ($\beta = 0.079$, $t = 1.475$, $p > 0.05$) and H3 ($\beta = 0.056$, $t = 0.959$, $p > 0.05$) were not supported. Anticipated merchandise diversity positively influenced consumer value ($\beta = 0.252$, $t = 5.446$, $p < 0.001$); thus, H4 was supported. Moreover, value consciousness ($\beta = 0.093$, $t = 2.368$, $p < 0.05$) and coupon proneness ($\beta = 0.148$, $t = 3.088$, $p < 0.01$) had positive effects on consumer value, supporting H5 and H6. The results indicated that the correlation between consumer value and the willingness to impulse buy ($\beta = 0.360$, $t = 7.125$, $p < 0.001$) and between consumer value and the willingness to repeat buy ($\beta = 0.553$, $t = 9.645$, $p < 0.001$) were positive. Moreover, the willingness to impulse buy was positively related to the willingness to repeat buy ($\beta = 0.212$, $t = 4.210$, $p < 0.001$). Therefore, H7, H8, and H9 were supported.

According to our results, the structural paths of the supported hypotheses exhibit that the p-values are less than 0.05. Meanwhile, Fig. 2 also shows the values of explained

Table 3 Inter-construct correlations

	AP	AC	AD	AMD	VC	CP	CV	WIB	WRB
AP	0.89								
AC	0.61	0.81							
AD	0.65	0.70	0.90						
AMD	0.58	0.52	0.54	0.86					
VC	0.40	0.45	0.42	0.43	0.78				
CP	0.47	0.54	0.43	0.38	0.67	0.82			
CV	0.79	0.65	0.64	0.68	0.54	0.59	0.91		
WIB	0.35	0.51	0.46	0.27	0.31	0.40	0.36	0.88	
WRB	0.48	0.42	0.42	0.45	0.47	0.45	0.63	0.41	0.94

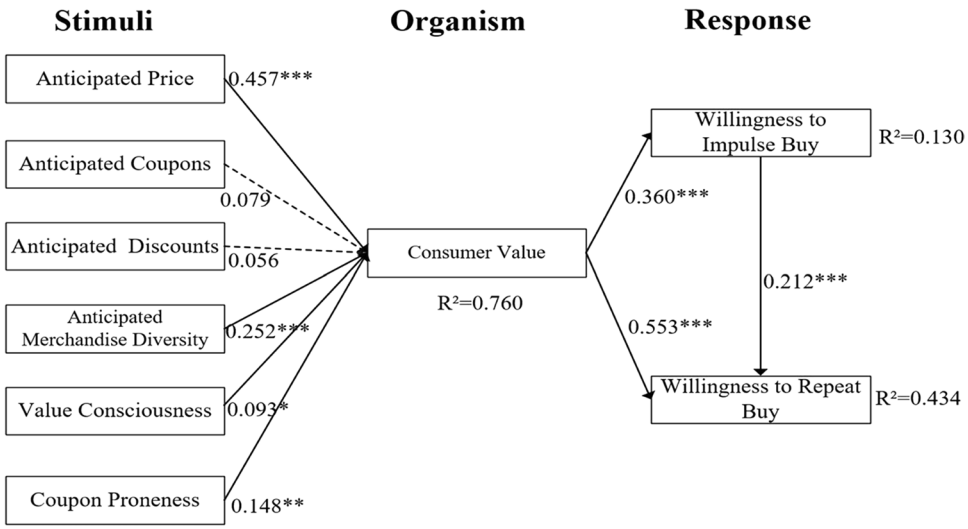

Fig. 2 Results. Note: $^{*}p<0.05$; $^{**}p<0.01$; $^{***}p<0.001$; β = Path Coefficient; R^2 = explained variances

variances for consumer value ($R^2=0.760$), willingness to impulse buy ($R^2=0.130$), and willingness to repeat buy ($R^2=0.434$). That indicates the model accounts for 13–76 percent of the variance (R^2 scores). In addition, the standardized root mean square residual (SRMR) is less than 0.08 (Hu & Bentler, 1999). Therefore, the overall model has a good fit.

Discussion

Although prior studies have explored impulse buying and repurchase, they put importance on the factors affecting the two dependent variables respectively (Cheung et al., 2021; Goel et al., 2022). Some scholars exploring impulse buying have found that discounts and coupons (Park et al., 2012) and website branding (Chang & Su, 2008) were the main incentives of impulse purchases. On the other hand, previous studies exploring repeat buying have reported that consumer loyalty to previously purchased or familiar products was the key point to consumers for repeat buying (Kato & Hoshino, 2020). Therefore, previous research has not simultaneously investigated for the relationship between impulse buying and repeat buying in the same model (Cheung et al., 2021; Chopdar & Balakrishnan, 2020). In this study, we proposed the model on the basis of the CIFE and S–O-R frameworks and simultaneously examined the factors affecting the willingness to impulse buy and the willingness to repeat buy and the relationship between the two dependent variables. Based on the framework, nine hypotheses were proposed. By structural equation modeling, the results revealed that seven of the hypotheses were supported. Anticipated price, anticipated merchandise diversity, value consciousness, and coupon proneness were positively related with consumer value, which in turn affected the willingness to impulse buy and the willingness to repeat buy. The willingness to impulse buy had a positive influence on the willingness to repeat buy.

According to the results, consumer value directly drove the willingness to impulse buy and the willingness to repeat buy. This is consistent with the previous research, which found a positive correlation between consumer value, impulse buying, and repeat buying (Shang & Zheshi, 2020; Zhang et al., 2022). Furthermore, the willingness to impulse buy had an influence on the

willingness to repeat buy; this finding was in line with that of Goel et al. (2022), who found that e-impulse buying influences continuing to buy. Moreover, the factors influencing consumer value were anticipated price, anticipated merchandise diversity, value consciousness, and coupon proneness. The findings are consistent with prior studies that price and product characteristics have a positive impact on consumer value (Chopdar & Balakrishnan, 2020; Matsuoka, 2022) and the research by Tarka et al. (2022) that personality affects consumer behavior.

However, the relationship between anticipated coupons and consumer value was nonsignificant. It is inconsistent with the research by Wierich (2014) that coupons affect consumer value. Because different consumers have different consumption concepts, not all consumers are coupon-prone. Consumers can be classified as hedonic or utilitarian (Babin et al., 1994). Hedonic consumers tend to enjoy using coupons for purchases, whereas utilitarian consumers are goal-oriented and primarily concerned about product quality (Babin et al., 1994). Even when offered a large discount coupon, utilitarian consumers will not necessarily change their purchase intention. Although consumer types were not divided in this study, further investigation of the nonsignificant relationship between anticipated coupon and consumer value was warranted.

Anticipated discounts had no significant influence on consumer value. It is inconsistent with the research by Lee and Chen-Yu (2018) that discounts affect consumer value. A possible reason for this result is that some consumers consider that larger discounts indicate lower value. This result is consistent with Blattberg et al. (1990), who found that consumers are skeptical about discounts because consumers purchase products for value, not for money. If firms provide consumers with more coupons, consumers may perceive the product as having a lower value, in which case they may determine that purchasing or repurchasing these products is not worthwhile. For low-income consumers, especially for students, if the price of a product greatly exceeds their expectations, distributing more discounts is not sufficient to promote them to buy it. Consumer evaluations and income levels also affected these results. These factors resulted in a nonsignificant relationship between anticipated discounts and consumer value.

Implications for research and practice

Implications for research

The results of this research have several implications and provide various contributions to theory. The primary contribution is the combination of the S–O-R and CIFE frameworks for exploring factors affecting impulse and repeat buying. This study is also the first to explore the factors causing repeat buying after impulse buying. When consumers finished impulse buying, they generally evaluate the product from many aspects. If consumer value from impulse buying enhances, they are likely to increase the willingness to repeat buying. If not, they will not repurchase. Based on these above conditions, the development of a framework for simultaneously investigating the willingness to impulse buy and the willingness to repeat buy is an innovation of this study.

The CIFE framework was initially applied to probe the factors affecting impulsive consumption (Dholakia, 2000), and the S–O-R framework was subsequently used to investigate factors affecting consumer behavior (Chen & Yao, 2018). Because the S–O-R framework only focuses on the processes affecting consumer behaviors, the classification of stimuli before purchasing is ignored. The CIFE framework focuses more on impulse buying and does not explain repeat buying or loyalty. The CIFE framework also ignores the behavioral process of converting stimuli to responses. Hence, the two frameworks were combined to leverage their respective advantages, and a research model was developed for analyzing consumer willingness to impulse buy and to repeat buy.

Price, coupons, and discounts were regarded as marketing stimuli, and merchandise diversity was regarded as a situational factor. Value consciousness and coupon proneness were considered personality aspects. Although the original CIFE framework included marketing stimuli, situational factors, and impulsivity (Dholakia, 2000), we replaced impulsivity with personality in our model. Because this study explored not only impulse buying but also analyzed repeat buying, personality (i.e., value consciousness and coupon proneness) was deemed more suitable for understanding the behavior of both new and loyal customers. Future studies may explore the effect of free trials as a prepurchase stimulus on consumer purchase behavior.

For organism factors, consumer value was the mediator between stimuli and customer responses; this is in accordance with Chopdar and Balakrishnan (2020), who identified consumer value as an organism and a key measure of consumer purchase behavior. We further examined the correlation between the willingness to impulse buy and the willingness to repeat buy. Previous studies on consumer behavior have focused on either impulse buying or repeat buying (Bandyopadhyay et al., 2021; Chan et al., 2016; Ping et al., 2021; Yang et al., 2021). However, no study have addressed the relationship between the willingness to impulse buy and the willingness to repeat buy. To the best of our knowledge, this study is the first to examine both behavioral intentions in the same model. Therefore,

by exploring the correlation between these factors, this study yields a better understanding of customer behaviors. Future studies are encouraged to examine the impact of consumer satisfaction as an organism on impulse buying and repeat buying.

Implications for practice

The results of this study are beneficial for consumers and enterprises aiming to understand impulse buying and repeat buying. Price, merchandise diversity, value consciousness, and coupon proneness are the factors that influence consumer value, which in turn increases customer willingness to impulse buy and the willingness to repeat buy. The findings can help companies better understand the factors affecting the willingness to impulse buy and the willingness to repeat buy, facilitating the formulation of marketing strategies to attract consumers and increase profits. The findings could also be used by consumers to increase their opportunities to choose suitable commodities.

Enterprises should set corresponding price levels to improve purchase propensity for products at different levels. Product price is the key metric for most people. Firms should launch highly cost-effective products and set reasonable product prices to improve consumer value. Regardless of consumer income level, firms should develop products based on the expected price and value of individual consumers to encourage impulse and repeat purchases. Moreover, merchandise diversity is a key factor increasing consumer impulse buying and the willingness to repeat buy. Thus, firms should provide consumers with various products through product innovation to meet consumers' impulsive shopping needs.

Because value consciousness and coupon proneness are positively related to consumer value, firms should consider different consumers with different value consciousness when expanding their market share. Value consciousness and coupon proneness can aid in selecting consumers for targeting. Firms can understand customer characteristics based on customer transaction history. For value-conscious consumers, firms should launch products with high quality and performance to increase their purchase intention. For coupon-prone consumers, we suggest that firms regularly provide consumers with coupons to increase their willingness to impulse buy and maintain their loyalty. Firms can also provide different levels of coupons based on the recency, frequency, and price of consumer purchases. Distributing coupons can remind customers to make additional purchases.

Finally, the willingness to impulse buy can drive the willingness to repeat buy. Because impulse buying and consumer value both influence the willingness to repeat buy, firms should carefully study consumer psychology and then launch new products that meet consumer demands and should hold promotional activities to stimulate consumers to make impulse purchases. After a consumer makes an impulse purchase, firms should listen to that consumer's feedback and track their demand preferences to improve products and stimulate repeat buying. Therefore, maintaining the loyalty of previous customers and stimulating the interest of new customers are key for increasing impulse buying and repeat buying.

Conclusions and limitations

The main contribution of this study is its exploration of the factors required for consumer repeat buying following an impulse purchase. Considering many consumers find that the perceived value is lower than expected after impulsive purchase, the willingness to impulse buy and the willingness to repeat buy were simultaneously investigated to elucidate the relationship between these two states. This study is also the first to investigate the effects of marketing stimuli, situational factors, and personality (i.e., value consciousness and coupon proneness) on consumer value; it is also the first to investigate the influence of consumer value on the willingness to impulse buy and the willingness to repeat buy. Moreover, the correlation between the willingness to impulse buy and the willingness to repeat buy was explored. Price, merchandise diversity, value consciousness, and coupon proneness were found to significantly affect consumer value, which in turn influences the willingness to impulse buy and the willingness to repeat buy. To facilitate the transition from an impulse buy to a repurchase, companies should use appropriate prices and merchandise diversity to attract customers. Companies should attempt to understand the psychology of consumers who buy certain products on impulse. Based on the results of the survey, companies should update their products and develop new products to meet the diverse demands of customers and encourage them to repurchase. Prior studies have focused on either impulse buying or repeat buying; this study investigated the factors affecting both impulse and repeat buying as well as the relationship between these two behavioral intentions.

This study has some limitations. First, consumer willingness to impulse buy and the willingness to repeat buy were measured instead of actual behaviors. Second, this study was conducted in the context of the drinks industry. Caution should be exercised when applying these findings to other industries. Future research could examine the factors affecting the willingness to impulse buy and the willingness to repeat buy in other fields online or offline. Finally, the data collection process for this study was conducted in China. Cultural differences may directly affect consumer preferences, influencing the results. Thus, future research could validate these results in other cultural contexts.

Appendix 1

Measurement items of constructs.

Construct	Items		Source
Anticipated Price (AP)	AP1	I saved money when I shopped in this shop.	Chiu et al. (2014)
	AP2	I made inexpensive purchases in this shop.	
	AP3	I got my purchases cheaper in this shop than if I had made them elsewhere.	
Anticipated Coupons (AC)	AC1	When I use the coupons, I feel that I am getting a good deal.	Achadinha et al. (1994)
	AC2	The coupons can help me save money.	
	AC3	I believe the financial gain from using the coupons is worthwhile.	
	AC4	I think the coupons are valuable.	
Anticipated Discounts (AD)	AD1	I buy things because they are sold at a discounted price.	Chen and Yao (2018)
	AD2	I buy more things because of discounts.	
	AD3	I enjoy searching for discounts on the mobile app of the shop.	
Anticipated Merchandise Diversity (AMD)	AMD1	This shop provides a number of product offerings.	Chiu et al. (2014)
	AMD2	This shop provides a variety of product offerings.	
	AMD3	This shop provides products that suit the buyers' needs.	
Value Consciousness (VC)	VC1	I am very concerned about low prices, but I am equally concerned about product quality.	Lichtenstein et al. (1993)
	VC2	When purchasing a product, I always try to maximize the quality I get for the money I spend.	
	VC3	When I buy products, I like to be sure that I am getting my money's worth.	
	VC4	I generally shop around for lower prices on products, but they still must meet certain quality requirements before I will buy them.	
	VC5	When I shop, I usually compare the "price per ounce" information for brands I normally buy.	
	VC6	I always check prices at the store to be sure I get the best value for the money I spend.	
Coupon Proneness (CP)	CP1	Redeeming coupons makes me feel good.	Lichtenstein et al. (1993)
	CP2	I have favorite brands, but most of the time I buy the brand I have a coupon for.	
	CP3	I am more likely to buy brands for which I have a coupon.	
	CP4	Beyond the money I save, redeeming coupons gives me a sense of joy.	
	CP5	When I use coupons, I feel I'm getting a good deal.	

Construct	Items		Source
Consumer Value (CV)	CV1	The price I pay for the product in this shop is a good deal.	Sirdeshmukh et al. (2002)
	CV2	The effort involved in buying the product from this shop is worthwhile.	
	CV3	I think the overall shopping experience in this shop is good value.	
Willingness to Impulse Buy (WIB)	WIB1	My purchase was unplanned.	Verhagen and van Dolen (2011)
	WIB2	Before visiting this shop, I did not have the intention to do this purchase.	
	WIB3	I could not resist to do this purchase on the mobile app of this shop.	
Willingness to Repeat Buy (WRB)	WRB1	I predict I would repurchase the product at this shop.	Venkatesh et al. (2003), Lam (2007)
	WRB2	I want to repurchase the product at this shop.	
	WRB3	It is likely that I will repurchase the product at this shop.	

Appendix 2

The descriptive statistics of the questionnaire

Construct	Item	Min	Max	Mode	Mean	Standard Error	Standard Deviation	Variance
Anticipated Price (AP)	AP1	1	7	7	5.79	0.067	1.187	1.408
	AP2	1	7	7	5.51	0.076	1.341	1.798
	AP3	1	7	7	5.31	0.082	1.462	2.139
Anticipated Coupons (AC)	AC1	3	7	7	5.93	0.064	1.131	1.278
	AC2	3	7	7	5.75	0.068	1.215	1.475
	AC3	1	7	7	6	0.066	1.173	1.376
	AC4	2	7	7	6.05	0.066	1.172	1.373
Anticipated Discounts (AD)	AD1	1	7	7	5.89	0.066	1.167	1.363
	AD2	1	7	7	5.87	0.066	1.17	1.368
	AD3	1	7	7	5.96	0.067	1.196	1.431
Anticipated Merchandise Diversity (AMD)	AMD1	2	7	7	5.59	0.07	1.237	1.529
	AMD2	1	7	5	5.5	0.069	1.222	1.493
	AMD3	2	7	6	5.73	0.064	1.137	1.293
Value Consciousness (VC)	VC1	2	7	7	6.42	0.049	0.864	0.747
	VC2	2	7	7	6.28	0.055	0.98	0.961
	VC3	2	7	7	6.05	0.062	1.106	1.223
	VC4	1	7	7	6.13	0.065	1.153	1.33
	VC5	1	7	7	6.09	0.062	1.095	1.199
	VC6	2	7	7	6.04	0.06	1.07	1.145
Coupon Proneness (CP)	CP1	2	7	7	6.26	0.054	0.965	0.93
	CP2	1	7	7	6.04	0.066	1.17	1.368
	CP3	1	7	7	6.11	0.062	1.109	1.229
	CP4	1	7	7	5.94	0.068	1.209	1.461
	CP5	3	7	7	6.09	0.058	1.028	1.056
Consumer Value (CV)	CV1	3	7	7	5.74	0.065	1.151	1.325
	CV2	3	7	7	5.67	0.068	1.202	1.445
	CV3	1	7	7	5.57	0.073	1.298	1.686

Construct	Item	Min	Max	Mode	Mean	Standard Error	Standard Deviation	Variance
Willingness to Impulse Buy (WIB)	WIB1	1	7	7	6.57	0.048	0.858	0.736
	WIB2	2	7	7	6.3	0.062	1.105	1.221
	WIB3	1	7	7	6.17	0.073	1.299	1.688
Willingness to Repeat Buy (WRB)	WRB1	1	7	7	6.1	0.065	1.15	1.323
	WRB2	1	7	7	5.88	0.073	1.293	1.671
	WRB3	1	7	7	5.81	0.08	1.419	2.015

Funding This research was supported by the General Project of National Social Science Foundation of China (21BJY032) and Zhejiang Provincial Social Science Planning Project (21NDJC087YB).

Data availability The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

Declarations

Ethical approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent Informed consent was obtained from all individual participants included in the study.

Conflict of interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

References

Achadinha, N. M. J., Jama, L., & Nel, P. (1994). The drivers of consumers' intention to redeem a push mobile coupon. *Behaviour & Information Technology, 33*, 1306–1316.

Adan, A., Prat, G., Fabbri, M., & Sànchez-Turet, M. (2008). Early effects of caffeinated and decaffeinated coffee on subjective state and gender differences. *Progress in Neuro-Psychopharmacology and Biological Psychiatry, 32*(7), 1698–1703.

Babin, B. J., Darden, W. R., & Mitch, G. (1994). Work and/or fun: Measuring hedonic and utilitarian shopping value. *The Journal of Consumer Research, 20*, 644–644.

Bandyopadhyay, N., Sivakumaran, B., Patro, S., & Kumar, R. S. (2021). Immediate or delayed! Whether various types of consumer sales promotions drive impulse buying? An empirical investigation. *Journal of Retailing and Consumer Services, 61*, 102532.

Baumeister, R. F. (2002). Yielding to temptation: Self-control failure, impulsive purchasing, and consumer behavior. *The Journal of Consumer Research, 28*, 670–676.

Bawa, K., & Shoemaker, R. W. (1989). Analyzing incremental sales from a direct mail coupon promotion. *Journal of Marketing, 53*, 66–78.

Belk, R. W. (1975). Situational Variables and Consumer Behavior. *The Journal of Consumer Research, 2*, 157–164.

Blattberg, R. C., Neslin, S. A., & Hall, P. (1990). *Sales promotion concepts, methods, and strategies*. Prentice Hall.

Cai, F., Bagchi, R., & Gauri, D. K. (2016). Boomerang effects of low price discounts: How low price discounts affect purchase propensity. *The Journal of Consumer Research, 42*, 804–816.

Chan, T. K. H., Cheung, C. M. K., & Lee, Z. W. Y. (2016). The state of online impulse-buying research: A literature analysis. *Information & Management, 54*, 204–217.

Chang, H. H., & Su, W. C. (2008). The impact of online store environment cues on purchase intention: Trust and perceived risk as a mediator. *Online Information Review, 32*, 818–841.

Chang, T. Z., & Wildt, A. R. (1994). Price, product information, and purchase intention: An empirical study. *Journal of the Academy of Marketing Science, 22*, 16–27.

Chen, C., & Li, X. (2020). The effect of online shopping festival promotion strategies on consumer participation intention. *Industrial Management & Data Systems, 120*, 2375–2395.

Chen, C. C., & Yao, J. Y. (2018). What drives impulse buying behaviors in a mobile auction? The perspective of the stimulus-organism-response model. *Telematics and Informatics, 35*, 1249–1262.

Chen, J., Lan, Y. C., Chang, Y. W., Samaranayake, P., & Chen, K. C. (2022). Buyers' psychological situations in cross-border electronic commerce. *ACIS 2022 Proceedings*. 30. https://aisel.aisnet.org/acis2022/30

Cheung, M. L., Leung, W. K., Cheah, J.-H., & Ting, H. (2021). Exploring the effectiveness of emotional and rational user-generated contents in digital tourism platforms. *Journal of Vacation Marketing, 28*, 13567.

Chiou-Wei, S. Z., & Inman, J. J. (2008). Do shoppers like electronic coupons? A panel data analysis. *Journal of Retailing, 84*, 297–307.

Chiu, C. M., Wang, E. T., Fang, Y. H., & Huang, H. Y. (2014). Understanding customers' repeat purchase intentions in B2C e-commerce: The roles of utilitarian value, hedonic value and perceived risk. *Information Systems Journal, 24*, 85–114.

Chopdar, P. K., & Balakrishnan, J. (2020). Consumers response towards mobile commerce applications: S-O-R approach. *International Journal of Information Management, 53*, 102106.

Chopdar, P. K., Paul, J., Korfiatis, N., & Lytras, M. D. (2022). Examining the role of consumer impulsiveness in multiple app usage behavior among mobile shoppers. *Journal of Business Research, 140*, 657–669.

Chris, J., & Lichtenstein, D. R. (1999). A range theory account of price perception. *The Journal of Consumer Research, 25*, 353–368.

Chuah, S. H. W., Aw, E. C. X., & Cheng, C. F. (2022). A silver lining in the COVID-19 cloud: Examining customers' value perceptions, willingness to use and pay more for robotic restaurants. *Journal of Hospitality Marketing & Management, 31*, 49–76.

Dholakia, U. M. (2000). Temptation and resistance: An integrated model of consumption impulse formation and enactment. *Psychology and Marketing, 17*, 955–982.

Dodds, W. B., Monroe, K. B., & Grewal, D. (1991). Effects of price, brand, and store information on buyers' product evaluations. *Journal of Marketing Research, 28*, 307–319.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equations with unobservable variables and measurement error. *Journal of Marketing Research, 18*, 39–50.

Goel, P., Parayitam, S., Sharma, A., Rana, N. P., & Dwivedi, Y. K. (2022). A moderated mediation model for e-impulse buying

tendency, customer satisfaction and intention to continue e-shopping. *Journal of Business Research, 142*, 1–16.
Gong, H., Huang, J., & Goh, K. H. (2019). The illusion of double-discount: Using reference points in promotion framing. *Journal of Consumer Psychology, 29*, 483–491.
Guimond, L., Kim, C., & Laroche, M. (2001). An investigation of coupon-prone consumers: Their reactions to coupon feature manipulations. *Journal of Business Research, 54*, 131–137.
Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal, 6*, 1–55.
Huang, L. T. (2016). Flow and social capital theory in online impulsive buying. *Journal of Business Research, 69*, 2277–2283.
Kato, R., & Hoshino, T. (2020). Unplanned purchase of new products. *Journal of Retailing and Consumer Services, 59*, 102397.
Kerin, R. A., Jain, A., & Howard, D. J. (1992). Store shopping experience and consumer price-quality-value perceptions. *Journal of Retailing, 68*, 376–397.
Kim, H. (2019). An analysis in preference of coffee consumption by gender and age[J]. *Culinary Science & Hospitality Research, 25*(9), 129–134.
Kim, C. H., & Han, E. (2020). Premiums paid for what you believe in: The interactive roles of price promotion and cause involvement on consumer response. *Journal of Retailing, 96*, 235–250.
Kim, Y., & Peterson, R. A. (2017). A meta-analysis of online trust relationships in e-commerce. *Journal of Interactive Marketing, 38*, 44–54.
Kimiagari, S., & Malafe, N. S. A. (2021). The role of cognitive and affective responses in the relationship between internal and external stimuli on online impulse buying behavior. *Journal of Retailing and Consumer Services, 61*, 102567.
Köchling, A. (2021). Experiential marketing as a tool to enhance Tourists' pre-travel online destination experiences? A web-based experiment. *Journal of Destination Marketing & Management, 22*, 100669.
Lam, D. (2007). Cultural influence on proneness to brand loyalty. *Journal of International Consumer Marketing, 19*, 7–21.
Lee, J. E., & Chen-Yu, J. H. (2018). Effects of price discount on consumers' perceptions of savings, quality, and value for apparel products: Mediating effect of price discount affect. *Fashion and Textiles, 5*, 13.
Li, Y., Li, G., & Tayi, G. K. (2019). Try-before-you-buy: Online retailing strategy with customer self-mending. *Electronic Commerce Research and Applications, 36*, 1–50.
Li, J., Zhu, A., Liu, D., Zhao, W., Zhou, Y., Chen, Y., Liu, Y., & Sun, N. (2020). Sustainability of China's singles day shopping festivals: Exploring the moderating effect of fairness atmospherics on consumers' continuance participation. *Sustainability., 12*, 2644.
Lichtenstein, D. R., Netemeyer, R. G., & Burton, S. (1990). Distinguishing coupon proneness from value consciousness: An acquisition-transaction utility theory perspective. *Journal of Marketing, 54*, 54–67.
Lichtenstein, D. R., Ridgway, N. M., & Netemeyer, R. G. (1993). Price perceptions and consumer shopping behavior: A field study. *Journal of Marketing Research, 30*, 234–245.
Matsuoka, K. (2022). Effects of revenue management on perceived value, customer satisfaction, and customer loyalty. *Journal of Business Research, 148*, 131–148.
Meehee, C., Bonn, M. A., & Li, J. (2018). Differences in perceptions about food delivery apps between single-person and multi-person households. *International Journal of Hospitality Management, 77*, 108–116.
Mehrabian, A., & Russell, J. (1974). *An approach to environmental psychology*. MIT Press.
Moore, G. C., & Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information Systems Research, 2*, 192–222.
Mullen, E. M. (1995). *Mullen scales of early learning manual*. T.O.T.A.L. Child.
Muratore, I. (2016). Teens as impulsive buyers: What is the role of price? *International Journal of Retail & Distribution Management, 44*, 1166–1180.
Nam, C., Cho, K., & Kim, Y. D. (2020). Cross-cultural examination of apparel online purchase intention: S-o-r paradigm. *Journal of Global Fashion Marketing, 12*, 62–76.
Oh, H. (2000). The effect of brand class, brand awareness, and price on customer value and behavioral intentions. *Journal of Hospitality & Tourism Research, 24*, 136–162.
Park, M., & Lennon, S. J. (2009). Brand name and promotion in online shopping contexts. *Journal of Fashion Marketing and Management, 13*, 149–160.
Park, E. J., Kim, E. Y., Funches, V. M., & Foxx, W. (2012). Apparel product attributes, web browsing, and e-impulse buying on shopping website. *Journal of Business Research, 65*, 1583–1589.
Ping, C. S., Chuang, H. C., Chou, Y. C., & Liang, T. P. (2021). Predictive analytics for customer repurchase: Interdisciplinary integration of buy till you die modeling and machine learning. *European Journal of Operational Research, 296*, 635–651.
Rao, A. R., & Monroe, K. B. (1989). The effect of price, brand name, and store name on buyers' perceptions of product quality: An integrative review. *Journal of Marketing Research, 26*, 351–357.
Rook, D. W. (1987). The buying impulse. *The Journal of Consumer Research, 14*, 189–199.
Shang, B., & Zheshi, B. (2020). How repurchase intention is affected in social commerce? An empirical study. *The Journal of Computer Information Systems, 62*, 326–336.
Sheth, J. N., Newman, B. I., & Gross, B. L. (1991). *Consumption values and market choice: Theory and application* (Vol. 29, pp. 487–489). South Western Publishing.
Sirdeshmukh, D., Singh, J., & Sabol, B. (2002). Consumer trust, value, and loyalty in relational exchanges. *Journal of Marketing, 66*, 15–37.
Souza, J., Tondolo, V., Sarquis, A. B., Longaray, A. A., & Da Costa, R. M. (2020). Effect of perceived value, risk, attitude and environmental consciousness on the purchase intention. *International Journal of Business Environment, 11*, 11–31.
Sparks, D. L., & Tucker, W. T. (1971). A multivariate analysis of personality and product use. *Journal of Marketing Research, 8*, 67–70.
Su, M., Zheng, X., & Sun, L. (2014). Coupon trading and its impacts on consumer purchase and firm profits. *Journal of Retailing, 90*, 40–61.
Sullivan, Y. W., & Kim, D. J. (2018). Assessing the effects of consumers' product evaluations and trust on repurchase intention in e-commerce environments. *International Journal of Information Management, 39*, 199–219.
Sweeney, J. C., & Soutar, G. N. (2001). Consumer perceived value: The development of a multiple item scale. *Journal of Retailing, 77*, 203–220.
Tarka, P., Kukar-Kinney, M., & Harnish, R. J. (2022). Consumers' personality and compulsive buying behavior: The role of hedonistic shopping experiences and gender in mediating-moderating relationships. *Journal of Retailing and Consumer Services, 64*, 102802.
Varki, S., & Colgate, M. (2001). The role of price perceptions in an integrated framework of behavioral intentions. *Journal of Service Research, 3*, 232–240.
Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly, 27*, 425–478.
Venkatesh, V., Speier-Pero, C., & Schuetz, S. (2022). Why do people shop online? A comprehensive framework of consumers' online shopping intentions and behaviors. *Information Technology & People, 35*(5), 1590–1620.
Verhagen, T., & van Dolen, W. (2011). The influence of online store beliefs on consumer online impulse buying: A model and empirical application. *Information & Management, 48*, 320–327.

Weber, R. (2001). Understanding information systems continuance: An expectation-confirmation model. *MIS Quarterly, 25*, 351–370.

Wierich, R. (2014). How retailer coupons increase attitudinal loyalty—The impact of three coupon design elements. *European Journal of Marketing, 48*, 699–721.

Xu, Y., & Huang, J. S. (2014). Effects of price discounts and bonus packs on online impulse buying. *Social Behavior and Personality, 42*, 1293–1302.

Yang, D. J., Huang, K. C., & Feng, X. (2012). A study of the factors that affect the impulsive cosmetics buying of female consumers in Kaohsiung. *African Journal of Business Management, 6*, 652–657.

Yang, F., Tang, J., Men, J., & Zheng, X. (2021). Consumer perceived value and impulse buying behavior on mobile commerce: The moderating effect of social influence. *Journal of Retailing and Consumer Services, 63*, 102683.

Yoo, B., Donthu, N., & Lee, S. (2000). An examination of selected marketing mix elements and brand equity. *Journal of the Academy of Marketing Science, 28*, 195–211.

Zang, W., Qian, Y., & Song, H. (2022). The effect of perceived value on consumers' repurchase intention of commercial ice stadium: The mediating role of community interactions. *International Journal of Environmental Research and Public Health, 19*, 3043.

Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end framework and synthesis of evidence. *Journal of Marketing, 52*, 2–22.

Zhang, Z., Zhang, N., & Wang, J. (2022). The influencing factors on impulse buying behavior of consumers under the mode of hunger marketing in live commerce. *Sustainability, 14*, 2122.

Zhao, Y., Xu, X., & Wang, M. (2019). Predicting overall customer satisfaction: Big data evidence from hotel online textual reviews. *International Journal of Hospitality Management, 76*, 111–121.

Zheng, X., Lee, M., & Cheung, C. M. K. (2017). Examining e-loyalty towards online shopping platforms: The role of coupon proneness and value consciousness. *Internet Research, 27*, 709–726.

Zhou, S., Li, T., Yang, S., & Yang, C. (2022). What drives consumers' purchase intention of online paid knowledge? A stimulus-organism-response perspective. *Electronic Commerce Research and Applications, 52*, 101126.

Zhu, L., Li, H., Wang, F. K., He, W., & Tian, Z. (2020). How online reviews affect purchase intention: A new framework based on the stimulus-organism-response (s-o-r) framework. *Aslib Journal of Information Management, 72*, 463–488.