

The Journal of Behavioral Science (TJBS)

Original Article

Online Impulse Buying: Investigating the Role of E-Commerce Attributes, Customer Motivation, and Urge to Buy Impulsively

Ika Febrilia¹, Rahmi¹, Suddin Lada², and Brahim Chekima^{2*}

Author Affiliation

¹ Lecturer, Faculty of Economics
Universitas Negeri Jakarta,
Indonesia.
² Senior Lecturer, Faculty of
Business, Economics &
Accountancy, Universiti
Malaysia Sabah, Malaysia.

* Corresponding author e-mail:
bchekima@ums.edu.my

Article Information

Received: 4.8.23
Revised: 4.9.23
Accepted for initial review: 5.9.23

Keywords

S-O-R paradigm, website
personality, hedonistic, utilitarian,
online impulsive buying

Abstract

Online impulse buying is shaped by both external e-commerce factors and individual psychological intricacies. Thus, it is vital to comprehend the interplay between external e-commerce factors and individual psychological intricacies, providing insights essential for developing effective strategies in the digital marketplace. This research, centered on 205 samples from Malaysia, provides a nuanced understanding of the interplay between internal and external factors in shaping impulsive buying behavior by employing the S-O-R paradigm. Structural equation modelling technique was applied for analysis. The findings indicate that hedonistic consumer motivation in online impulsive buying is influenced by three external factors, website personality ($\beta = .25; p \leq .001$), product attributes ($\beta = .16; p = .01$), and retailer motivational activities ($\beta = .60; p \leq .001$). Moreover, the results suggest that website personality ($\beta = .17; p = .02$), and retailer motivational activities ($\beta = .57; p \leq .001$), have direct significant effects on utilitarian consumer motivation, while product attribute does not affect utilitarian customer motivations ($\beta = .12; p = .11$). Results also suggest that features of e-commerce platforms and the motivations of consumers can influence impulsive tendencies, providing an opportunity for businesses to offer conscientious nudges. By deliberately prompting customers about their goals and underscoring the value of products and their attachment from hedonic and utilitarian aspects, companies can guide impulsive buying shoppers towards more deliberate and gratifying decisions aligned with long-term goals and choice architecture in behavioral science.

Impulse buying is a crucial strategic component in the business landscape, providing opportunities for heightened sales, improved consumer allegiance, and overall business prosperity. Technological advancements have broadened the impact of impulse buying, particularly in the digital domain. The incorporation of technology in online commerce is evident through features like one-click purchasing and personalized notifications (Dholakia et al., 2005). Businesses adept at effectively utilizing these technological tools can elevate the online shopping experience, fostering impulsive buying tendencies. Moreover, the act of impulse buying contributes significantly to building brand loyalty and enhancing customer satisfaction. Ramanathan's (2011) study underscores that positive encounters with impulsive purchases establish emotional ties with a brand, resulting in heightened customer loyalty and contentment. Consequently, impulse buying is recognized as playing a pivotal role in bolstering revenue and profitability for businesses especially in e-commerce context (Verplanken & Herabadi, 2001).

The e-commerce sector in Southeast Asia holds undeniable significance, particularly with a pronounced level of consumer engagement surpassing developed nations like Japan and the United States, as indicated by experts (Khoo, 2021). Countries such as Thailand, Malaysia, Singapore, Indonesia,

Vietnam, and the Philippines exhibit a remarkable e-commerce usage rate, exceeding 70% of the global average in shopping activities (Khoo, 2021). Analyzing data from 125 million website users between January 1, 2021, and April 30, 2022, it was found that a significant portion of online consumers, up to twice a day, actively participates in shopping activities through their mobile devices (IPrice Insights Team, 2022). This underscores the growing trend of mobile-centric online shopping behavior, highlighting the need for businesses to prioritize mobile-friendly platforms and strategies to effectively cater to this tech-savvy consumer base.

This trend aligns with the observations of Azis (2019) regarding predominant trends in online consumer behavior in Indonesia, emphasizing the prevalence of smartphone use for internet access and product information search, with over 90% of consumers preferring mobile devices for browsing and shopping. Notably, trends also include the increasing presence of both men and women in online shopping, a focus on seeking detailed product information, and a rising reliance on e-money for transactions (Azis, 2019). The study by Helmi et al. (2018) comparing consumer buying behavior in Indonesia and Malaysia reveals that both countries share a shopping style characterized by perfectionism, brand orientation, and a tendency towards impulsiveness. While Indonesian consumers prioritize product prices, stick to familiar products, and sometimes face confusion with choices, Malaysian consumers embrace new products and consider shopping a recreational activity (Helmi et al., 2018). Similarities in exciting discount offers and promos across Indonesian and Malaysian online shops highlight marketers' strategies to tap into the psychological-impulsive aspect of consumer behavior (Bahrainizad & Rajabi, 2018; Populix, 2021).

Notably, research indicates that Malaysian consumers exhibit a unique shopping style marked by a blend of perfectionism, brand loyalty, and impulsive tendencies, emphasizing preferences for well-known brands while displaying a proclivity for impulsive purchases (Atulkar & Kesari, 2018; Febrilia & Warokka, 2021). Despite this evidence, the understanding of the underlying causes behind online impulsive buying behavior in Malaysia remains largely unexplored, particularly in the utilitarian and hedonic aspects of attitudes towards behavioral acts. This study aims to fill this research gap by incorporating motivational and psychological factors, thereby contributing to a more comprehensive understanding of online impulse purchasing behavior in the Southeast Asian e-commerce landscape (Rejikumar & Asokan-Ajitha, 2021).

In this study, researchers employ the stimulus-organism-response (SOR) paradigm to delve into the motivational and psychological factors influencing online impulse buying, building upon the model proposed by Rejikumar and Asokan-Ajitha (2021). The choice of adopting SOR aligns with the paradigm's widespread application in studies on customer online experience (Chang et al., 2014; Chekima & Chekima, 2019; Chen et al., 2020; Rejikumar & Asokan-Ajitha, 2021; Zafar et al., 2020). Rejikumar and Asokan-Ajitha's study (2021) highlights the intricate interplay of external and internal factors in driving impulse buying, ultimately diminishing rational decision-making capacity. External motivations rooted in the marketplace include store ambience, sales interactions, pricing, promotions, and payment terms. Internal drives involve psychological aspects, excitement levels, and lifestyle preferences contributing to the recreational aspects of shopping. Despite providing a comprehensive framework, potential research gaps are identified, urging a more nuanced exploration of online-specific stimuli, a deeper understanding of psychological intricacies, values such as hedonic and utilitarian, and exploration of consumer resistance mechanisms (Chen et al., 2020; Mehrabian & Russel, 1974). Addressing these gaps is crucial for a more holistic comprehension of impulse buying behavior.

Consequently, the study's objective is to empirically investigate the influence of e-commerce attributes, such as website personality, product attributes, and retailer motivational activities, on customer motivations (utilitarian and hedonic). Furthermore, it explores how these motivations impact the urge to buy impulsively and subsequently influence online impulse buying behavior. The study's findings aim to serve as a valuable reference for marketers and contribute to the existing body of knowledge on the determinants of online impulse purchasing behavior. By unraveling the interplay between e-commerce

attributes, customer motivations, and impulsive buying behavior, the research extends the theoretical foundations of consumer behavioral science in the context of the rapidly evolving e-commerce landscape. This contribution is particularly significant in an era where understanding the determinants of online impulse purchasing is essential for both scholars and practitioners alike.

Literature Review

This section will delve into the foundational theory of the *stimulus-organism-response* (S-O-R) paradigm, fortify the rationale behind formulating research hypotheses, and introduce the research framework.

The S-O-R Paradigm

In this research, the researchers integrate external and internal factors influencing impulse buying within the framework of the stimulus-organism-response (S-O-R) paradigm. This posits that environmental cues or stimuli play a role in shaping an individual's internal state, influencing the inclination to respond positively or negatively (Mehrabian & Russel, 1974). In the online context, these stimuli refer to cues within the digital environment that impact consumers' cognitive and emotional aspects, influencing their decision to engage in online shopping. The organism encompasses consumers' cognitive and emotional dimensions, including their feelings, perceptions, and experiences. The response signifies consumer behavior resulting from the interaction between stimuli and the processes within the organism, such as purchasing behavior, loyalty, and usage behavior (Chen et al., 2020).

The adoption of the S-O-R paradigm in this study is based on its extensive application in previous research on customer online experiences (Chang et al., 2014; Chen et al., 2020; Rejikumar & Asokan-Ajitha, 2021; Zafar et al., 2020). This study aligns with and extends the SOR model proposed by Rejikumar and Asokan-Ajitha (2021) by introducing additional variables, namely e-commerce attributes (Akram et al., 2018; Atulkar & Kesari, 2018; Rezaei et al., 2016), as stimuli. The internal processes include hedonic/utilitarian shopping motives, moods, impulses to behave impulsively, and perceptions of risk (Bahrainizad & Rajabi, 2018; Chang et al., 2014; Mohan et al., 2013; Zhang et al., 2018). These internal processes represent the cognitive and emotional steps that consumers (organisms) navigate before arriving at a decision for impulsive buying as their response (Atulkar & Kesari, 2018; Bahrainizad & Rajabi, 2018; Febrilia & Warokka, 2021; Rejikumar & Asokan-Ajitha, 2021; Rezaei et al., 2016).

The SOR paradigm lays the foundation for researchers to adopt the model in different behavioural science contexts, and the factors are determined according to their role. For instance, in this study, the stimulus (S) is represented by website personality, product attributes and motivational activities by retailers. The justification for the inclusion of website personality as the stimulus is that the design, functionality, and overall personality of a website serve as the initial stimuli that consumers encounter during their online interactions. Website personality influences users' perceptions, emotional responses, and engagement levels (Rejikumar & Asokan-Ajitha, 2021). As for product attributes, it is due to the characteristics of a product, including quality, features, and pricing, acting as stimuli that shape consumers' perceptions, preferences, and attitudes. These attributes influence the evaluation of a product's utility and value (Chiu et al., 2014). Retailers' promotional activities, discounts, and incentives serve as external stimuli that influence consumers' motivations and emotions. These activities create a sense of urgency, excitement, and perceived value, impacting consumer responses (Darke & Dahl, 2003).

As for the organism (O), hedonistic and utilitarian motivations have been proposed. Hedonistic motivations represent consumers' desires for pleasure, enjoyment, and emotional gratification in the consumption process (Rejikumar & Asokan-Ajitha, 2021). External stimuli, such as attractive website design or promotional activities, can trigger hedonistic responses by appealing to consumers' emotional and

experiential needs. On the other hand, utilitarian motivations reflect consumers' practical and functional needs, emphasizing factors such as efficiency, value, and problem-solving (Rejikumar & Asokan-Ajitha, 2021). External stimuli, such as clear product information or user-friendly website features, can influence utilitarian responses by addressing consumers' pragmatic concerns.

Incorporating these stimuli into the S-O-R framework allows researchers to explore how website personality, product attributes, and promotional activities collectively shape the internal states of consumers, leading to specific responses such as hedonistic and utilitarian customer motivation, leading to urge to buy and, subsequently, impulsive buying behaviour. The integration of these stimuli provides a comprehensive understanding of the complex interplay between external influences and consumer reactions in the online shopping environment.

The S–Stimulus: Website Personality, Product Attributes, Motivational Activities by Retailers

Rezaei et al. (2016) stated that a web personality is a website owned by a store/brand that describes the dimensions of human personality. They also added that a website must meet the criteria of solidity, enthusiasm, genuineness, sophistication, and unpleasantness. The more these elements are fulfilled in a website, the tendency of consumers to shop impulsively increases along with the feeling of enjoyment and pleasure of consumers when accessing the website. In the context of e-commerce, several factors must also be appropriately managed to encourage purchases and increase perceived benefits, such as whether or not the application is easy to use (usability), the level of application security used for transactions (security), the quality of the information provided, how relevant it is with consumer needs (information quality), aesthetic application design and processing speed, the level of trust that service providers/online store applications can provide, to the availability of online customer service that will always be on standby responding to consumers (Rejikumar & Asokan-Ajitha, 2021).

Product attributes such as price, product features, and quality are important factors that encourage consumers to shop impulsively. Consumers in today's era primarily consider price when buying a product and look at all the aspects that exist in the product. The better the attributes attached to the product, in terms of price, features, and quality, the more likely consumers are to directly buy products they did not plan before (Atulkar & Kesari, 2018). These product attributes (a wide selection of products, brands, and detailed specifications) will generally be displayed in the online store application to give consumers a good shopping experience that meets their expectations (Rejikumar and Ajitha, 2021).

Motivational activities offered by marketers/retailers can take the form of many tools, such as free samples, gift vouchers, coupons, point of purchase, sign displays, live shows, price discounts, events, to friendly and responsive sales staff (Atulkar & Kesari, 2018). These various sales promotion activities are designed to stimulate consumers to purchase products within a certain period. This tool is used so that consumers who initially only want to browse become interested in buying suddenly or unplanned (Akram et al., 2018). The more motivational activities offered, it can be concluded that the higher the level of impulsive behaviour shown by consumers.

The O-Organism: Customer Motivations (Hedonistic/Utilitarian) and Urge to Buy Impulsively

The motives or reasons behind someone deciding to shop are generally divided into two, namely, rational (practical) or emotional (hedonic). Feelings of pleasure, comfort, and enthusiasm usually follow hedonic shopping motives. In contrast, practical shopping motives focus on the benefits that can be obtained from the products that have been purchased. Regarding impulse buying decisions, hedonic motives override utilitarian reasons, meaning consumers will be more concerned with their feelings than the product's benefits. Hedonic consumers will enjoy their shopping process and want the store's atmosphere, which stimulates their sensory perceptions, thereby reducing rationality in decision-making (Rejikumar & Asokan-Ajitha, 2021).

The urge to buy impulsively is a person's desire when meeting an object in a particular environment (Beatty & Ferrell, 1998), which encourages him to behave impulsively. Mohan et al., (2013) stated that the urge to buy impulsively is the urge that arises to buy a product when a consumer sees a particular product, model, or brand. The desire to buy is sudden and unplanned, eventually creating impulse actions. Even though sometimes the urge to make a purchase is irresistible, it doesn't mean the consumer will follow through. In other words, consumers may desire to shop impulsively, but actual impulse buying behavior is not implemented (Zhang et al., 2018).

The R – Response: Online Impulse Buying

Impulse buying is when a consumer tends to make spontaneous, sudden, complex, and hedonic purchases of products without adequate consideration and information about the product (Bahrainizad & Rajabi, 2018). Impulse buying is generally accompanied by pleasure and a great desire to own the product (Chang et al., 2014). Previous studies have stated that this impulse buying behaviour can occur in purchasing goods offline and online. Two perspectives that are generally attached to impulse buying behaviour are that the urge to buy comes from the shopping environment (or can be said as an external factor), and secondly consumer personality traits (internal factors) which ultimately encourage them to make purchases unplanned (Atulkar and Kesari, 2018; Bahrainizad & Rajabi, 2018; Febrilia & Warokka, 2021; Rejikumar & Asokan-Ajitha, 2021; Rezaei et al., 2016).

Atulkar and Kesari (2018) argue that impulse buying is an unplanned condition and occurs due to stimuli from marketing activities, such as attractive product displays, store designs, prices, promotional offers, and product packaging, to various sales activities that make consumers ultimately decide to make an impulsive purchase without thinking about any consequences. They also added a research model showing that many factors influence consumer impulse buying behaviour, divided into consumer traits and situational factors. Consumer traits include impulse buying, shopping enjoyment, and materialism. Meanwhile, situational factors include a person's situation, store environment, retailer motivational activities, and product attributes.

Bahrainizad and Rajabi (2018) categorize impulse buying factors into external and internal, with a notable focus on mood as an internal factor. Positive or negative psychological states significantly influence consumers, with happy moods leading to in-depth product evaluations and negative moods prompting immediate purchases to alleviate negativity. Rezaei et al. (2016) extend the understanding of impulse buying to online stores, highlighting the impact of website attributes on impulsive consumer decisions. A well-organized, dynamic, user-friendly, reliable, and stylish website can drive unplanned purchases, leveraging technological advancements that facilitate online shopping.

Febrilia and Warokka (2021) combine various factors influencing impulse buying into a more comprehensive research model. Supported by the ongoing COVID-19 pandemic situation, the researchers combined the consumer traits and situational factors models that had been developed by Atulkar and Kesari (2018), consumer mood (Bahrainizad & Rajabi, 2018) and website quality (Tariq et al., 2019) by taking a sample of respondents who live in Jakarta, Indonesia and actively transact at various online store brands within the last 6 (six) months. Moreover, Rejikumar and Asokan-Ajitha (2021) propose an online impulse buying model incorporating e-commerce attributes, customer motivations (hedonistic and utilitarian), and risk perception. Their study underscores the significance of hedonism in influencing impulse buying behavior online. In summary, these studies collectively contribute to a comprehensive understanding of the factors influencing impulse buying across various contexts, whether offline or online. Thus, nine hypotheses were proposed.

H1: Website personality influences customer motivation hedonistically.

H2: Product attributes influence customer motivations hedonistically.

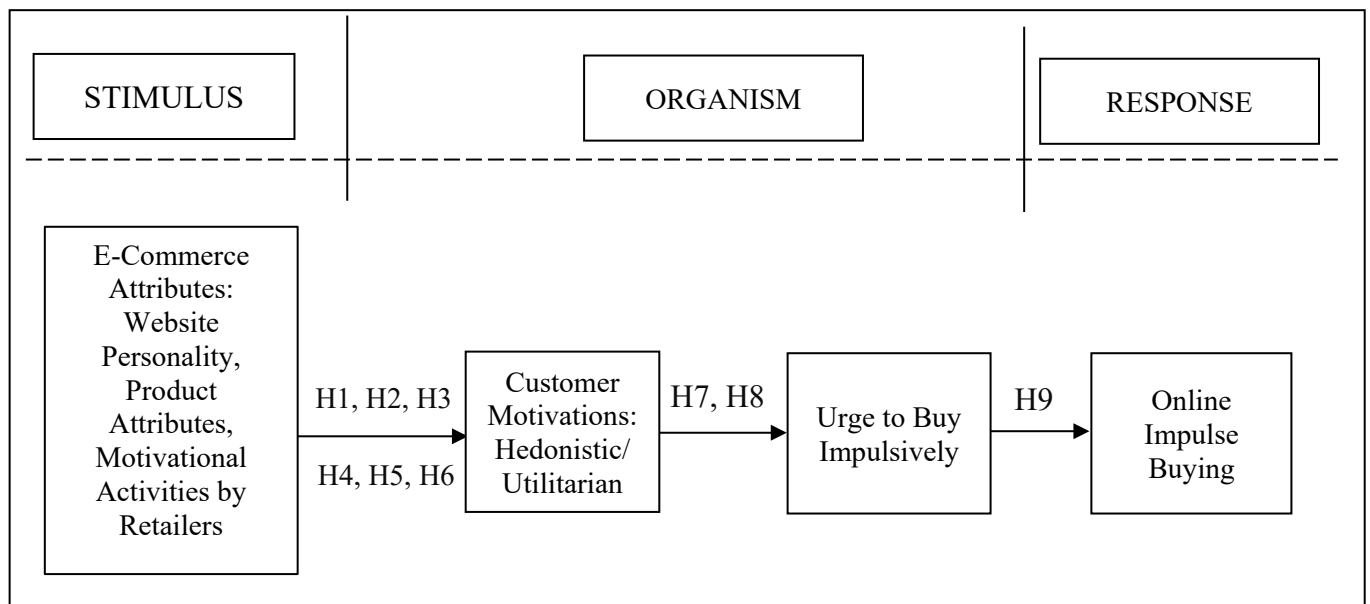
H3: Motivational activities by retailers influence customer motivations hedonistically.

H4: Website personality influences customer motivations utilitarian.

- H5: Product attributes influence customer motivations utilitarian.
 H6: Motivational activities by retailers influence customer motivations utilitarian.
 H7: Customer motivations hedonistic influences urge to buy impulsively.
 H8: Customer motivations utilitarian influences urge to buy impulsively.
 H9: The urge to buy impulsively influences online impulse buying.

Therefore, drawing from the arguments presented and the hypotheses derived from the studies mentioned earlier, the research framework is depicted in Figure 1. Given the complexity of the subject matter and the associated stimuli related to impulsive buying behavior explored in the aforementioned studies, it is evident that further investigations are warranted.

Figure 1
The Research Framework



Method

Sampling and Data Collection

This research was a quantitative study that used purposive sampling technique, where the selected respondents must meet the criteria, namely the participants were students from Malaysia's public universities; at least 18 years old, familiar with popular online store brands in Malaysia (Shopee, Lazada, Bukalapak, Blibli, PG Mall, Decathlon, Qoo10), have made at least three transactions in online store applications in Malaysia within the last three months; and have suddenly/unplanned to shop at online shop applications in Malaysia (online impulse buying). The reason behind selecting university students is due to their active engagement with electronic commerce platforms and have purchasing power resulting from stipend received from parents or scholarships (Chekima, 2016; 2018; Kemp, 2023).

The samples participated on a voluntarality basis and were informed that their response is confidential and will not be disclosed to any third party unless for researcher's use for data analyses purposes. The sample's socio-demographic characteristics comprised 151 (73.66%) women and 54 (26.34%) men. Regarding the age group, most respondents in the research are aged 21-23. In addition, the most visited online store or e-commerce brands for shopping are Shopee, with fashion as an item commonly purchased online. Based on the frequency of shopping online in a month, most of the respondents did online shopping once a month and three-four times a month. Finally, respondents shop online because many online stores provide promotions discounts, cash back, etc.

All information regarding the socio-demographic characteristics of the respondents is presented in Table 1.

Table 1

Socio-Demographic Characteristics of the Respondents (n=205)

Items	Frequency	Percentage
Gender		
Female	151	73.65
Male	54	26.35
Age		
18-20 years old	2	0.97
21-23 years old	175	85.37
24-26 years old	25	12.19
27-29 years old	2	0.97
Above 30 years old	1	0.50
Most visited online store/e-commerce brands for shopping		
Blibli	1	0.50
Decathlon	1	0.50
Lazada	7	3.41
Shopee	183	89.23
TikTok Shop	6	2.93
Tokopedia	6	2.93
Zalora	1	0.50
Items commonly purchased online		
Car Parts	1	0.50
Cellphones, USB flash drives, and various accessories (for cellphones and computers/other gadgets)	16	7.80
Daily uses items	1	0.50
Fashion (e.g., clothing, shoes, bags, accessories)	185	90.23
Veil/hijab and cosmetics	2	0.97
Frequency of shopping online in a month		
Once a month	94	45.85
3-4 times a month	94	45.85
5-10 times a month	11	5.37
Countless/very frequent	6	2.93
Reasons for shopping online		
Many online stores provide promos, discounts, cashback, etc.	168	81.96
Mood/feeling influence	4	1.95
Personality factors	2	.97
Shopping online saves time	13	6.34
The appearance of the online store (website) is beautiful	6	2.93
The online store provides quality products	12	5.85

Research Instruments

The study involves seven variables, comprising three independent e-commerce attributes: website personality, product attributes, and motivational activities by retailers. Additionally, there are three

intermediary variables, namely customer motivations categorized as hedonistic and utilitarian, along with the urge to buy impulsively. The dependent variable is online impulse buying. Measurement of these variables utilized a Likert scale with six points ranging from strongly disagree (scale 1) to strongly agree (scale 6). The website personality variable incorporates six indicators sourced from Rezaei et al. (2016). Sample items are “I like shopping on apps that provide reliable information” and “Visually appealing apps can influence my desire to shop online”. For product attributes, six indicators from Atulkar and Kesari (2018) were adopted, and 11 indicators from Dawson and Kim (2009) and Atulkar and Kesari (2018) were utilized for the motivational activities by retailers variable. The customer motivations variables (hedonistic and utilitarian) each comprise six indicators from Chen et al. (2020) and Park et al. (2012). Sample items are “I feel happy when browsing the online store application”, “I feel enjoy when browsing the online store application” and “I did some browsing on the online store application to get as much value as possible”. The urge to buy impulsively variable includes nine indicators from Mohan et al. (2013) and Atulkar and Kesari (2018), while the online impulse buying variable is represented by seven indicators from Rezaei et al. (2016) and Atulkar and Kesari (2018). Samples are “I can't control myself from shopping online” and “I always make unplanned online purchases”.

Results

The data obtained were then analyzed using AMOS 24, a structural equation modeling approach. The first step involves the measurement model's reliability (composite reliability-CR), convergent validity (factor loadings and AVE or average variance extracted) and discriminant validity Hair et al. (2019). The result revealed that all items were substantially accepted as the items have reached the threshold values for factor loading (≥ 0.5), AVE (≥ 0.5), and CR (≥ 0.7). One item (PA5) showed poor loading of less than 0.4; hence, it was removed as per Hair et al. (2019). Overall, the results confirm the validity of the measurement model.

Table 2 displays the outcomes of the discriminant validity assessment. The evaluation was conducted following the Fornell and Larcker (1981) approach, where associations between constructs and the square root of the average variance extracted (AVE) for each construct were compared. As per Hair et al. (2019) guideline, the square root of each construct's AVE should surpass the correlations between that construct and the other constructs. In Table 3, the diagonal entries represent the square roots of AVEs for the constructs, while the off-diagonal entries show the correlations between the constructs. These results affirm the establishment of discriminant validity among the constructs.

Table 2

Discriminant Validity (Fornell-Larcker Criterion)

	1	2	3	4	5	6	7
1. WP	.80						
2. PA	.01	.82					
3. MA	.03	.06	.81				
4. CMH	.02	.20	.13	.78			
5. CMU	.50	.24	.06	.51	1		
6. UBI	.04	.18	.15	.02	.49	.75	
7. OIB	.60	.15	.32	.10	.70	.07	.82

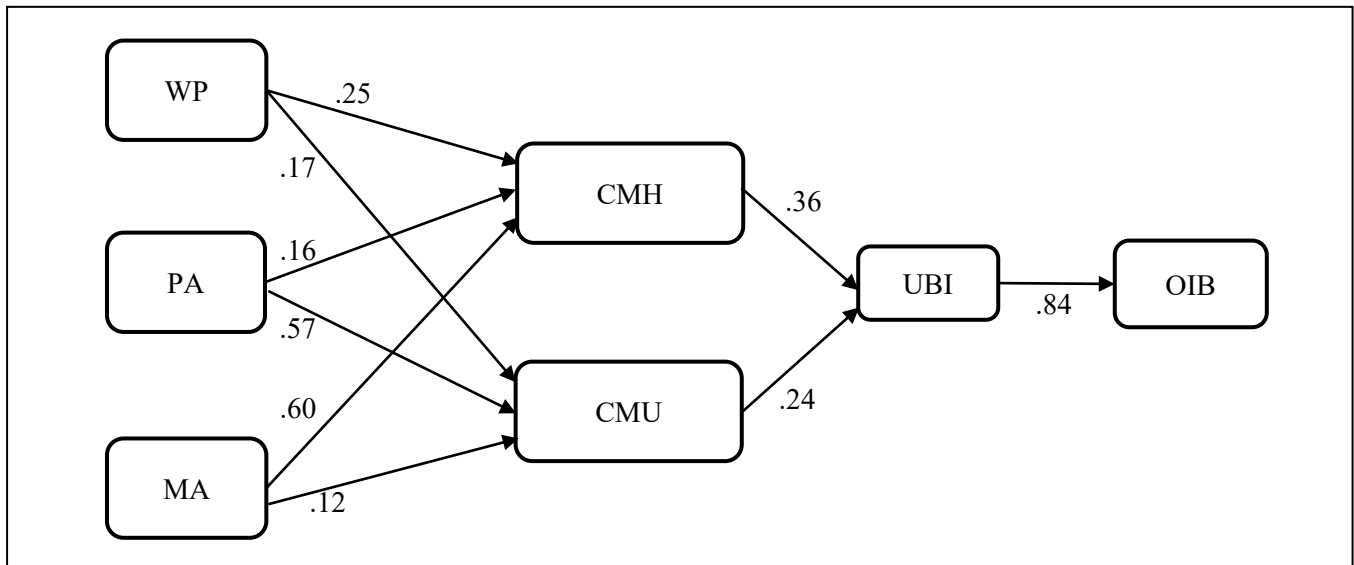
Note. WP = Website Personality; PA = Product Attributes; MA = Motivational Activities by Retailers; CMH = Customer Motivations – Hedonistic; CMU = Customer Motivations – Utilitarian; UBI = Urge to Buy Impulsively; OIB = Online Impulse Buying

In the second stage of analysis, the structural model was assessed. Table 3 and Figure 2 present the result of the structural model analysis (hypotheses testing). The result indicates that website personality

($\beta = 0.25$; $p \leq .001$), product attributes ($\beta = .16$; $p = .01$), and motivational activities by retailers ($\beta = .60$; $p \leq .001$) have significant direct effects on hedonistic customer motivations. In addition, website personality ($\beta = .17$; $p = .02$) and motivational activities by retailers ($\beta = .57$; $p \leq .001$) had significant direct effects on utilitarian customer motivations, while product attribute does not affect utilitarian customer motivations ($\beta = .12$; $p = .11$). Thus, H4 and H6 were supported, while H5 was not supported. As for the urge to buy impulsively, it was found that it is influenced by hedonistic customer motivations ($\beta = .36$; $p \leq .001$) and utilitarian customer motivations ($\beta = .24$; $p = .01$), where both of these factors explained 58% of the variance in the urge to buy impulsively. Lastly, is the urge to buy impulsively found to have significant direct effects on online impulse buying ($\beta = .84$; $p \leq .001$) and explained 60% of the variance in online impulse buying. Thus, hypotheses H7 through 9 were supported.

Figure 2

The Results of the Structural Model Analysis



Note. WP = Website Personality; PA = Product Attributes; MA = Motivational Activities by Retailers; CMH = Customer Motivations – Hedonistic; CMU = Customer Motivations – Utilitarian; UBI = Urge to Buy Impulsively; OIB = Online Impulse Buying

Discussion

The landscape of consumer behavior in the digital realm is a dynamic and intricate tapestry, as evidenced by the comprehensive findings presented in this Study. The findings of this study shed light on the multifaceted interplay between website personality, product attributes, motivational activities, and distinct consumer motivations that govern online impulse buying. Notably, the Study delves into the impact of website personality on hedonistic motivations, the nuanced relationship between product attributes and utilitarian motivations, and the influence of motivational activities on both hedonistic and utilitarian consumers.

The findings presented in Table 3, suggest a significant impact of website personality on customer motivations, specifically in the hedonistic dimension. This implies that website meeting criteria such as user-friendliness, secure transactions, comprehensive information provision, and aesthetic design can influence consumers to engage in hedonistic behaviour. This aligns with previous studies (Jones & Kim, 2010; Rejikumar & Asokan-Ajitha, 2021).

The acceptance of hypothesis 2, which asserts that product attributes influence customer motivations in the hedonistic realm, provides valuable insights into the factors that drive hedonistic

consumer behavior. The study's results suggest that better product quality, exclusive features, and lower prices contribute to an elevated likelihood of consumers exhibiting hedonistic behavior. This finding aligns with existing research by Abdallah and Jaleel (2015) and Rejikumar and Asokan-Ajitha (2021), reinforcing the notion that hedonistic consumers are particularly drawn to products that offer a combination of quality, exclusivity, and affordability. While hedonistic consumers are often associated with impulsivity and a focus on pleasure and enjoyment, the study suggests that tangible aspects of the product, such as quality and features, play a significant role in shaping their motivations.

Table 3
Hypotheses Testing

	Hypotheses			β	<i>t</i> -value	Result
H1	WP	→	CMH	.25	3.92	Supported
H2	PA	→	CMH	.16	2.59	Supported
H3	MA	→	CMH	.60	10.24	Supported
H4	WP	→	CMU	.17	2.36	Supported
H5	PA	→	CMU	.12	1.62	Not Supported
H6	MA	→	CMU	.57	8.31	Supported
H7	CMH	→	UBI	.36	4.00	Supported
H8	CMU	→	UBI	.24	2.65	Supported
H9	UBI	→	OIB	.84	18.76	Supported

The acceptance of hypothesis 3, which posits that motivational activities by retailers impact hedonistic customer motivations, signifies a significant contribution to the understanding of consumer behavior in the context of marketing stimuli. The study's results indicate that various promotional strategies, including discounts and other motivational activities, play a crucial role in increasing hedonistic behavior among consumers. This finding resonates with and supports the conclusions drawn in previous research by McGuire (1974) and Rejikumar and Asokan-Ajitha (2021). The observed consistency across multiple studies underscores the robustness of the relationship between motivational activities and hedonistic consumer motivations. Specifically, the allure of benefits associated with promotions, such as financial savings, exclusive deals, or enhanced shopping experiences, appears to effectively tap into the hedonistic desires of consumers seeking immediate pleasure and enjoyment in their shopping endeavours.

The acceptance of hypothesis 4, which posits that website personality influences utilitarian customer motivations, sheds light on the intricate relationship between the online environment and consumers driven by practical considerations. The study suggests that website attributes such as usability, security, quality information, aesthetics, speed, and reliable customer service collectively contribute to shaping utilitarian motivations. This finding aligns with the insights derived from prior research by Wang (2015) and Rejikumar and Asokan-Ajitha (2021), reinforcing the understanding that website characteristics play a pivotal role in influencing utilitarian consumer behavior. The acknowledgement of website personality as a significant factor in shaping utilitarian motivations underscores the multifaceted nature of consumer decision-making in the digital space. Utilitarian consumers, traditionally associated with a focus on benefits, value, and convenience, are evidently swayed by the broader online experience offered by a website. Elements such as user-friendliness, security measures, and efficient access to information contribute to the perceived utility of the website, influencing utilitarian-minded consumers in their purchasing decisions.

Contrary to expectations and existing research, the study's result in rejecting H5, which posits that product attributes do not impact utilitarian motivations, challenges the prevailing consensus. The study prioritizes price considerations over features and quality components when representing product attributes. This departure from conventional perspectives, as indicated by Chiu et al. (2014) and Rejikumar and Asokan-Ajitha (2021), raises noteworthy implications for understanding consumer behavior in the utilitarian context. Traditionally, utilitarian consumers are perceived as individuals who prioritize practical

considerations such as benefits, value, and quality features when making purchasing decisions. However, the study suggests that, in the context of online shopping, price considerations take precedence over other product attributes for utilitarian motivations. This finding introduces a nuanced perspective, emphasizing the significance of affordability in influencing utilitarian consumer behavior.

The acceptance of hypothesis 6, which asserts that motivational activities by retailers affect utilitarian customer motivations, introduces a nuanced perspective into the relationship between promotions and the utilitarian mindset of consumers. The study's results reveal that promotions, including discounts and price reductions, surprisingly enhance consumers' sense of utility, even among those primarily focused on practical benefits and value. These findings align with and provide additional support to prior research conducted by Darke and Dahl (2003) and Rejikumar and Asokan-Ajitha (2021). The study suggests that promotions can play a substantial role in influencing utilitarian motivations by enhancing the perceived value and utility of the products or services offered. Moreover, the findings highlight the adaptability and responsiveness of utilitarian consumers to external incentives. The sense of utility derived from promotions not only influences purchasing decisions but may also contribute to increased consumer satisfaction and loyalty.

The acceptance of hypothesis 7, which posits that hedonistic motivations influence impulsive buying urges, provides valuable insights into the emotional drivers behind impulsive consumer behavior. The study's results suggest that hedonistic consumers, motivated by the pursuit of pleasure and enjoyment, are more prone to making impulsive purchases. This finding aligns with prior research by Yu and Bastin (2010) and Rejikumar and Asokan-Ajitha (2021), reinforcing the connection between hedonistic motivations and impulsive buying tendencies. Hedonistic consumers, characterized by their inclination toward enjoyment and immediate gratification, are more likely to succumb to impulsive impulses during the shopping process.

Furthermore, the result of H8 indicates that utilitarian motivations influence impulsive buying urges, bringing forth an intriguing dimension in understanding consumer behavior, particularly for individuals traditionally associated with careful and rational decision-making. The study suggests that even utilitarian consumers, who typically prioritize benefits, quality, and features, may deviate from their usual cautious approach and engage in impulsive buying under specific circumstances. This finding challenges the conventional dichotomy that separates utilitarian and hedonistic motivations, indicating that the boundaries between these two consumer types may not be as rigid as previously thought. While utilitarian consumers are generally perceived as making deliberate and calculated choices based on rational considerations, the study suggests that external factors, such as an attractive website and a positive shopping experience, can trigger impulsive buying tendencies among them.

The acceptance of hypothesis 9, which suggests that impulsive buying urges significantly influence online impulse buying, underscores a crucial link in the chain of consumer behavior. This finding aligns with previous research by Donthu and Garcia (1999) and Rejikumar and Asokan-Ajitha (2021), confirming the robustness of the relationship between impulsive buying urges and the actual occurrence of online impulse buying. The study's confirmation that a higher desire to shop impulsively correlates with a greater likelihood of engaging in online impulse buying reinforces the idea that consumer emotions and urges play a pivotal role in shaping actual purchasing behavior. This finding reinforces the importance of considering emotional and psychological factors in the design of online shopping experiences and marketing strategies. As the digital marketplace continues to evolve, acknowledging and leveraging impulsive tendencies can be a key element in enhancing consumer engagement and driving online sales.

Behavioral Science Implications and Future Research Directions

In the realm of behavioral science, this research provides valuable insights into the intricate interplay between e-commerce attributes and consumers' shopping motivations in an impulsive buying behavior context. The acknowledgment that hedonistic motivation significantly influences consumer

behavior aligns with behavioral science theories, particularly those emphasizing the role of emotions and pleasure in decision-making. The finding that hedonistic consumers may make spontaneous purchase decisions based on positive inputs resonates with behavioral economics, which recognizes the impact of emotions on choices, often leading to irrational or impulsive behaviors.

The findings of this research hold significant practical implications for businesses operating in the e-commerce sector. Understanding the nuanced interplay between e-commerce attributes, shopping motivations, and consumer behavior is crucial for designing effective strategies to enhance online sales. Businesses can strategically tailor their website personality, highlight specific product attributes, and employ motivational activities to resonate with different consumer motivations.

For hedonistic consumers, creating an engaging and aesthetically pleasing online shopping experience with positive inputs can be particularly effective.

In addition, marketing efforts can be designed to appeal to both hedonistic and utilitarian motivations. Highlighting the experiential and emotional aspects for hedonistic consumers, and emphasizing the practical benefits, value, and quality for utilitarian consumers, can optimize marketing messages. Recognizing that utilitarian consumers prioritize benefits, value, and quality over price suggests that businesses can focus on improving product quality while maintaining affordability.

Additionally, enhancing the overall user experience, including website design, navigation, and functionality, can contribute to positive stimuli for both types of consumers, potentially increasing conversion rates. Acknowledging the coexistence of emotional and rational processes in decision-making, businesses can adopt strategies that cater to both aspects. This involves striking a balance between appealing to the emotional aspects that drive impulse buying and providing rational information for considered decision-making.

In behavioral science, these findings can be interpreted through the lens of dual-process theories, recognizing the coexistence of emotional and rational processes in decision-making. The research underscores that e-commerce attributes act as stimuli influencing both hedonistic and utilitarian motivations, offering a nuanced perspective on the factors shaping consumer behavior in the online shopping context. This synthesis thus enhances our understanding of the psychological underpinnings of online impulse buying within the broader framework of behavioral science.

As for suggestion for future research, while the theoretical model is robust and well established, it may be beneficial to replicate the study or conduct additional tests with diverse samples and across various cultures to validate the present research findings. Also, other variables can be added such as trust since it deals with online platforms where fraud or scams cannot be avoided. Trust plays a crucial role in behavioral science as it influences human behavior, decision-making, and social interactions in various contexts. Trust can shape cognitive biases such as confirmation bias, where individuals are more likely to trust information that confirms their existing beliefs. This bias influences decision-making and information processing in various situations (Cialdini, 2001).

References

- Abdallah, S., & Jaleel, B. (2015). Website appeal: Development of an assessment tool and evaluation framework of e-marketing. *Journal of Theoretical and Applied Electronic Commerce Research*, 10(3), 45–62. <https://doi.org/10.4067/S0718-18762015000300005>
- Akram, U., Hui, P., Kaleem Khan, M., Tanveer, Y., Mehmood, K., & Ahmad, W. (2018). How website quality affects online impulse buying: Moderating effects of sales promotion and credit card use. *Asia Pacific Journal of Marketing and Logistics*, 30(1), 235 – 256. <https://doi.org/10.1108/APJML-04-2017-0073>

- Atulkar, S., & Kesari, B. (2018). Role of consumer traits and situational factors on impulse buying: Does gender matter? *International Journal of Retail & Distribution Management*, 46(4), 386–405. <https://doi.org/10.1108/IJRDM-12-2016-0239>
- Azis, I. (2019). *Trends in Indonesian consumer online behavior throughout 2018*. <https://tirto.id/tren-perilaku-online-konsumen-indonesia-sepanjang-2018-ddcH>. [in Indonesian]
- Bahrainizad, M., & Rajabi, A. (2018). Consumers' perception of usability of product packaging and impulse buying: Considering consumers' mood and time pressure as moderating variables. *Journal of Islamic Marketing*, 9(2), 262–282. <https://doi.org/10.1108/JIMA-04-2016-0030>
- Beatty, S. E., & Ferrell, M. E. (1998). Impulse buying: Modeling its precursors. *Journal of Retailing*, 74(2), 169–191. [https://doi.org/10.1016/S0022-4359\(99\)80092-X](https://doi.org/10.1016/S0022-4359(99)80092-X)
- Chang, H. J., Yan, R. N. & Eckman, M. (2014). Moderating effects of situational characteristics on impulse buying. *International Journal of Retail & Distribution Management*, 42(4), 298–314. <https://doi.org/10.1108/IJRDM-04-2013-0074>
- Chekima, B. (2016). Consumer values and green products consumption in Malaysia: A structural equation modelling approach. In A. Gbadamosi (Ed.), *Handbook of research on consumerism and buying behavior in developing nations* (pp. 383–408). IGI Global. <https://doi.org/10.4018/978-1-5225-0282-1.ch017>
- Chekima, B. (2018). The dilemma of purchase intention: A Conceptual Framework for Understanding Actual Consumption of Organic Food. *International Journal of Sustainable Economies Management*, 7(2), 1–13. <http://doi.org/10.4018/IJSEM.2018040101>
- Chekima, F. Z. & Chekima, B. (2019). Celebrity Credibility Influence on Cosmetic Product Purchase Intention: The Moderating Role of Ethnocentrism. In *Exploring the dynamics of consumerism in developing Nations* (pp. 153–175). IGI Global. <https://doi.org/10.4018/978-1-5225-7906-9.ch007>
- Chen, Y., Lu, Y., Gupta, S., & Pan, Z. (2020). Understanding “window” shopping and browsing experience on social shopping website: An empirical investigation. *Information Technology & People*, 33(4), 1124–1148. <https://doi.org/10.1108/ITP-12-2017-0424>
- 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(1), 85–114. <https://doi.org/10.1111/j.1365-2575.2012.00407.x>
- Cialdini, R. B. (2001). *Influence: Science and practice* (4th ed.). Allyn & Bacon.
- Darke, P. R., & Dahl, D. W. (2003). Fairness and discounts: The subjective value of a bargain. *Journal of Consumer Psychology*, 13(3), 328–338. https://doi.org/10.1207/S15327663JCP1303_13
- Dawson, S., & Kim, M. (2009). External and internal trigger cues of impulse buying online. *Direct Marketing: An International Journal*, 3(1), 20–34. <https://doi.org/10.1108/17505930910945714>
- Dholakia, R. R., Zhao, M., & Dholakia, N. (2005). Multichannel retailing: A case study of early experiences. *Journal of Interactive Marketing*, 19(2), 63–74. <https://doi.org/10.1002/dir.20035>
- Donthu, N., & Garcia, A. (1999). The internet shopper. *Journal of Advertising Research*, 39(3), 52–52. <https://link.gale.com/apps/doc/A60072293/AONE?u=anon~908a1b89&sid=googleScholar&xid=72569b93>
- Febrilia, I., & Warokka, A. (2021). Consumer traits and situational factors: Exploring the consumer's online impulse buying in the pandemic time. *Social Sciences & Humanities Open*, 4(1), 100182. <https://doi.org/10.1016/j.ssaho.2021.100182>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31, 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Helmi, R. A., Arifianti, R., & Nugraeni, W. (2018). Shopping style: Comparison of Indonesian and Malaysian customer. *AdBispreneur: Jurnal Pemikiran dan Penelitian Administrasi Bisnis dan Kewirausahaan*, 3(1), 31–37. <https://doi.org/10.24198/adbispreneur.v3i1.16523> [in Indonesian]
- IPrice Insights Team. (2022). *Mobile only: The future of southeast asian e-commerce has arrived*. IPrice Insights. <https://iprice.my/insights/digital-economy/state-online-shoppers-sea-mobile-use/>

- Jones, C., & Kim, S. (2010). Influences of retail brand trust, off-line patronage, clothing involvement and website quality on online apparel shopping intention. *International Journal of Consumer Studies*, 34(6), 627–637. <https://doi.org/10.1111/j.1470-6431.2010.00871.x>
- Kemp, S. (2023, February 4). *Digital 2023: Global overview report*. DataReportal. <https://datareportal.com/reports/digital-2023-global-overview-report>
- Khoo, S. (2021). *Top 7 e-commerce in Southeast Asia*. https://www.linkedin.com/pulse/top-7-ecommerce-southeast-asia-sen-khoo-?trk=pulse-article_more-articles_related-content-card
- McGuire, W. J. (1974). Psychological motives and communication gratification. In J. G. Blumler & E. Katz (Eds.), *The uses of mass communications: Current perspectives on gratifications research* (pp. 167–196). Sage.
- Mehrabian, A., & Russel, J. A. (1974). *An approach to environmental psychology*. MIT.
- Mohan, G., Sivakumaran, B., & Sharma, P. (2013). Impact of store environment on impulse buying behavior. *European Journal of Marketing*, 47(10), 1711–1732. <https://doi.org/10.1108/EJM-03-2011-0110>
- Park, E. J., Kim, E. Y., Funches, V. M., & Foxx, W. (2012). Apparel product attributes, web browsing, and e-impulse buying on shopping websites. *Journal of Business Research*, 65(11), 1583–1589. <https://doi.org/10.1016/j.jbusres.2011.02.043>
- Populix (2021). *5 Most Visited Indonesian e-commerce according to data*. <https://www.info.populix.co/post/ecommerce-indonesia>. [in Indonesian]
- Ramanathan, R. (2011). An empirical analysis on the influence of risk on relationships between handling of product returns and customer loyalty in e-commerce. *International Journal of Production Economics*, 130(2), 255–261. <https://doi.org/10.1016/j.ijpe.2011.01.005>
- Rejikumar, G., & Asokan-Ajitha, A. (2020). Role of impulsiveness in online purchase completion intentions: An empirical study among Indian customers. *Journal of Indian Business Research*, 13(2), 189–222. <https://doi.org/10.1108/JIBR-04-2018-0132>
- Rezaei, S., Ali, F., Amin, M., & Jayashree, S. (2016). Online impulse buying of tourism products: The role of web site personality, utilitarian and hedonic web browsing. *Journal of Hospitality and Tourism Technology*, 7(1), 60–83. <https://doi.org/10.1108/JHTT-03-2015-0018>
- Verplanken, B., & Herabadi, A. (2001). Individual differences in impulse buying tendency: Feeling and no thinking. *European Journal of Personality*, 15(1_suppl). <https://doi.org/10.1002/per.423>
- Wang, H. (2015). Study of influencing factors on consumer online impulse buying. *Management Science and Research*, 4(2), 19–25. <http://www.ivypub.org/MSR/cn/paperinfo/22921.shtml>
- Yu, C., & Bastin, M. (2010). Hedonic shopping value and impulse buying behavior in transitional economies: A symbiosis in the mainland China marketplace. *Journal of Brand Management*, 18, 105–114. <https://doi.org/10.1057/bm.2010.32>
- Zafar, A. U., Qiu, J., & Shahzad, M. (2020). Do digital celebrities' relationships and social climate matter? Impulse buying in f-commerce. *Internet Research*, 30(6), 1731–1762. <https://doi.org/10.1108/INTR-04-2019-0142>
- Zhang, K. Z., Xu, H., Zhao, S., & Yu, Y. (2018). Online reviews and impulse buying behavior: the role of browsing and impulsiveness. *Internet Research*, 28(3), 522–543. <https://doi.org/10.1108/IntR-12-2016-0377>