From Streaming to Direct Buying: Customers' Impulsive Buying Behaviour in TikTok Live-Streaming Commerce

Indonesian context

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ABSTRACT

The rapid evolution of e-commerce and the integration of social media platforms have significantly altered consumer behavior, especially with the rise of livestream shopping. This study investigates impulsive buying behavior in the context of TikTok Live-Streaming Commerce in Indonesia. It explores how external stimuli such as variety of selection, attractiveness, and price attributes influence impulsive buying behaviors, mediated by utilitarian and hedonic values.

A quantitative research methodology was employed, using surveys distributed to TikTok livestream shopping users in Indonesia. Data were collected from 316 TikTok users who have engaged in live-stream shopping. The data was gathered through online questionnaires and analyzed using SPSS software to perform descriptive statistics, factor analysis, reliability tests, and regression analyses.

The findings reveal that a wide variety of selection enhances impulsive buying behavior in the dynamic environment of TikTok live streams which is believed to be due to the stimulating nature of the platform. Attractiveness and price attributes significantly increase impulsive buying behavior, with both utilitarian and hedonic values partially mediating these relationships. The study highlights that strategic pricing tactics also play a critical role in driving impulsive purchases.

This study extends the application of the Stimulus-Organism-Response (S-O-R) framework to the context of live streaming, demonstrating the significant roles of utilitarian and hedonic values in mediating the effects of external stimuli on impulsive buying behavior. The research provides insights for marketers and e-commerce platforms aiming to enhance consumer engagement and drive sales through optimized live streaming platform, specifically TikTok live streaming. Additionally, the study underscores the need for responsible marketing practices to mitigate the potential negative impacts of impulsive buying on consumers, promoting a balanced approach to digital commerce.

<u>KEYWORDS:</u> impulsive buying behavior, live-streaming commerce, TikTok, S-O-R model, consumer behavior, Indonesia, hedonic value, utilitarian value

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Preface

I would like to express my deepest gratitude to my parents, Mama Laily and Bapak Agus,. Despite the completely different path I have chosen, you both have never to put away your hopes and prayers into supporting your firstborn. Your supports are my pillar in life.

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Lastly, I want to thank myself. Moving over 10,000 km away from a comfortable home and leaving a job that you have already build was never easy. In pursuit of better opportunities and new knowledge. Thank you for having the courage to finish what you started. Don't forget to keep on learning.

1. Introduction

The rapid growth of e-commerce and the emergence of social media platforms have transformed the landscape of consumer behavior. One particularly interesting phenomenon is the rise of live-streaming, where an interactive virtual way of allowing brands and influencers to engage directly with consumers in real time. As e-commerce continues to evolve and social media platforms enhance their live-streaming capabilities, it is crucial for businesses to understand and adapt to these changing consumer behaviors (Keenan, 2023, para. 13). Moreover, a previous study conducted by Song et al. (2022, p. 11) found that by embracing live streaming as part of marketing and sales strategies, brands can create immersive, personalized experiences that resonate with consumers and drive business growth.

The emergence of Taobao Live in China in 2016 marked the beginning of a new way of selling through live-stream shopping (McKinsey, 2023, para. 1) and allowing viewers to watch live-streaming and shop simultaneously. The COVID-19 pandemic became a turning point for its rapid development globally, especially in South East Asia (SEA). In 2023, the growth of livestream shopping in SEA reached US\$20 billion. Among them, Indonesia holds the largest livestream shopping market in the region, showing an estimated Gross Merchandise Value (GMV) of up to US\$8 billion (Momentum, 2023, para. 4). This emergence calls for attention to the changing consumer behavior in Indonesia, and the role of live-stream shopping in shaping this behavior.

E-commerce has been booming in Indonesia, supported by widespread internet access and an increasing general population's comfort level with digital transactions. A survey by Ipsos SEA Study (2022, para. 2) also shows that the live-stream shopping market in Indonesia is growing, with 78% of consumers claiming to be aware of live-stream shopping, 71% have watched live-stream shopping, and 56% of them have purchased this feature. Social media such as TikTok, Instagram, and Facebook are starting to develop into social commerce by launching live-stream shopping features. Livestream shopping is revolutionizing traditional retail experiences by providing a more engaging and immersive way for consumers to discover and purchase products online.

One of the newest live-stream shopping players i TikTok, which entered Indonesia in September 2017. TikTok, the popular short-video sharing platform, has embraced this trend, enabling users to participate in livestreams and potentially making impulsive purchases. According to the 2023 World Population Review data on TikTok's active users, Indonesia has 99.1 million active TikTok users, making it the country with the second-largest number of

active TikTok users in the world (Dzulfaroh, 2023, para. 3). TikTok has tapped into this trend by offering an accessible platform combining entertainment and online shopping. In less than one year, live stream shopping on TikTok has succeeded in increasing the transaction value (GMV) of TikTok Shop by up to 411% and increasing the number of TikTok orders by up to 564.1% from the previous period (Katadata, 2023, para. 9). The transaction behavior of TikTok users is in line with the information presented in the TikTok What's Next Report 2022, where as many as 67% of TikTok users said that TikTok encouraged them to shop even when they didn't want to shop. The success of this model in Indonesia is part of a broader digital transformation in Sout East Asia, where platforms like TikTok adapt to local markets through strategic live-streaming operations. This extensive user base provides a fertile ground for the growth of TikTok's live-stream shopping feature, TikTok Shop, which was released in 2021 (Business Insider, 2023, para. 2). Other than Indonesia, TikTok Shop is currently available in some other Southeast Asian countries, including Thailand, Malaysia, Singapore, Vietnam, and the Philippines. It is also expanding to the United States and the United Kingdom. The feature is not yet available in all countries, but it is expected to launch in more countries in the future.

In Indonesia, several e-commerce platforms, such as Shopee and Tokopedia, also offer live-streaming services to engage consumers and drive sales. Shopee named its livestreaming service as Shopee Live, while Tokopedia as Tokopedia Play. These platforms allow sellers to interact with buyers in real-time, showcasing products and answering questions during live sessions. However, while these services have grown in popularity, they can't provide the seamless integration of social media engagement and e-commerce functionalities that TikTok provides.

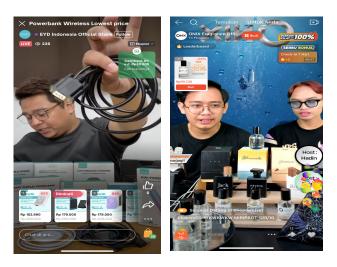


Figure 1.1: TikTok Live Competitors, Shopee Live (right) and Tokpedia Play (left)

TikTok Shop leverages advanced technical infrastructure to provide a seamless, livestream shopping experience. The platform integrates live video streaming with e-commerce
functionalities, allowing users to watch live product demonstrations and make real-time
purchases. The platform allows sellers to showcase their products through live videos, where
viewers can interact, ask questions, and make purchases without leaving the stream. TikTok
Shop livestreaming includes several key components that enhance the shopping experience.
Businesses and brands can upload their product catalogs, which include images, descriptions,
pricing, and inventory information, to create a virtual storefront within TikTok. This feature
allows users to browse a wide range of products, access detailed information, and make
purchases without leaving the app, thus creating a convenient and efficient shopping
experience. Shoppers have access to an extensive selection of items, from fashion and beauty
products to electronics and lifestyle goods, all at their fingertips. By providing such a wide
variety of options, TikTok Shop live streaming caters to the diverse interests and needs of its
users, making it a convenient one-stop destination for shopping across different categories.

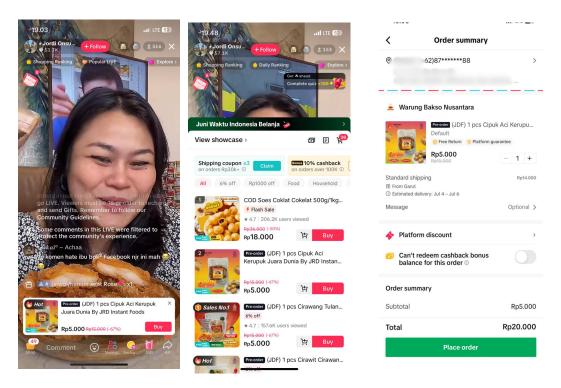


Figure 1.2: TikTok in-app purchase process until payment process during live session

Moreover, TikTok Shop facilitates in-app purchases, enabling users to complete transactions without being redirected to external websites. This in-app checkout process is designed to be user-friendly, reducing friction and increasing the likelihood of purchase completion. The app's user-friendly interface features easily accessible purchase buttons and real-time comment sections where potential buyers can engage directly with hosts, further driving impulsive buying behavior. Moreover, these live events frequently highlight promotions, flash sales, and special discounts in order to instill a feeling of immediacy and prompt spur-of-the-moment buying decisions.

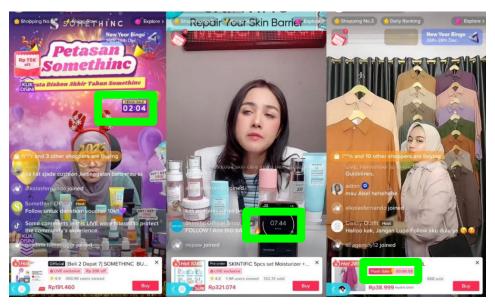


Figure 1.3: TikTok Live flash sale with remaining time display (in green box)

TikTok has tailored its live-stream shopping experience to cater to the preferences and cultural context of the Indonesian market. The platform has partnered with local brands and influencers, creating a localized shopping experience that resonates with Indonesian consumers. TikTok has unique characteristics that enable it to have a strong media penetration power (Dzulfaroh, 2023, para. 13). As a result, TikTok is often used as a source of information and news by Indonesian society (Dzulfaroh, 2023, para. 14), and the strategic adaptation has contributed to the rapid growth and success of TikTok Shop in Indonesia. This convenience factor contributes to the appeal and success of TikTok Shop livestreaming as a modern and innovative approach to e-commerce and live selling.

Changes in consumer shopping patterns, which currently use social commerce live streaming, have opened opportunities for consumers to make impulsive purchases online. According to a report co-published by TikTok and the Boston Consulting Group, 81% of APAC consumers are influenced by entertaining content when making purchase decisions (TikTok for Business, 2023, para. 5). This highlights the significant impact of content-driven commerce, or "shoppertainment", in shaping consumer behaviors in the region. Several researchers have proven that the internet does support impulsive buying. Many online consumers impulsive purchase studies (Floh & Madlberger, 2013, p. 427; Jeffrey & Hodge, 2007, p. 369; Parboteeah et al., 2009, p. 75) indicate that over half of all purchases made online are the result of impulsive decisions (Kimiagari & Malafe, 2021, p. 1). Liu et al. (2013, p. 830) also found that online impulsive buying behavior is higher than offline store

purchases. Furthermore, the incorporation of limited-time promotions, flash sales, and exclusive deals during these livestreaming events has heightened the sense of urgency and immediacy, prompting consumers to make spontaneous purchasing decisions (Feng et al., 2024, p.12). The convenience of seamless purchasing capabilities within the TikTok platform has facilitated frictionless transactions, which may enable consumers to act on their impulsiveness and make quick purchases while watching the live stream.

This research aims to understand the phenomenon of impulsive buying that consumers feel when using the live-stream shopping feature. Despite the growing popularity of live-stream shopping, there still needs to be more understanding of the factors that influences impulsive buyings. The existing literature has more studies on general online shopping behaviors, leaving a gap in understanding the uniqueness of new platforms like TikTok live streaming. To understand the factors that influence the impulsive to buy products on TikTok live stream shopping, this research uses the Stimulus-Organism-Response model, which studies how external and internal stimuli factors can influence consumers' value and ultimately create impulsive buying as a response.

Therefore, to achieve the research objectives, the following research questions must be answered by this study:

How do external factors or stimuli influence impulsive buying behaviour when using Tiktok Livestreaming?

1.1 Societal Relevance

From a societal perspective, this thesis addresses the trend of livestream shopping, which has implications for consumer behavior, marketing strategies, and economic transactions. Additionally, this research contributes to consumer education by highlighting the factors that trigger impulsive purchases during livestreams, helping consumers become more aware of their shopping behaviors in these interactive environments. By exploring how various stimuli in live streaming environments affect impulsive buying, this study offers valuable insights for marketers and e-commerce platforms aiming to optimize their strategies to enhance consumer engagement and sales. The findings could inform how platforms can design more effective livestreaming features that balance consumer enjoyment with informed purchasing decisions, potentially reducing regretful impulsive buys. Moreover, it empowers entrepreneurs and content creators to leverage their influence and reach a broader audience, fostering economic opportunities and entrepreneurship.

Additionally, this research contributes to consumer education by highlighting the factors that trigger impulsive purchases during livestreams, helping consumers become more aware of their shopping behaviors in these interactive environments. However, on the other side, the potential for impulsive buying raises concerns about overconsumption and financial implications for consumers, highlighting the need for responsible marketing practices and consumer education.

1.2 Scientific Relevance

Existing literature has explored the Stimulus-Organism-Response (S-O-R) theory, which suggests that external stimuli can influence an individual's emotional reactions and subsequent responses, including purchasing decisions. However, the unique nature of live-streaming e-commerce presents a novel context that warrants further investigation. Although numerous previous studies have used social commerce as their research object, most have focused on the TaoBao platform (Sun et al., 2019, p. 5). As a research gap, the TikTok platform is rarely used in live shopping context studies. Moreover, the importance of the live-streaming e-commerce context remains largely unexplored. This study aims to bridge this gap by applying the S-O-R model to the TikTok live-stream shopping environment, providing new insights into the factors influencing impulsive buying behavior in this rapidly growing e-commerce segment. This study seeks to fill this gap by providing an analysis of the factors influencing impulsive buying behavior in Indonesia, thereby contributing to a more balanced and globally relevant understanding of the phenomenon.

1.3 Chapter outline

This research is outlined as follows. Chapter 2 provides a comprehensive literature review, discussing impulsive buying behavior, the S-O-R model, and various stimuli influencing impulsive buying through utilitarian and hedonic values in this context. Chapter three details the methodology used in the study, including the research design, measurement, and operationalization of theoretical concepts, as well as data collection methods and steps taken to ensure validity and reliability. Chapter four presents the statistical results, including descriptive statistics and hypothesis testing, followed by a detailed analysis of the findings. Chapter five reflects on the results, interpreting them in the context of existing literature and theoretical frameworks, discussing the implications, acknowledging the limitations, and providing recommendations for future research.

2. Theoretical Framework

This chapter explores the theoretical basis of impulsive buying behavior within the context of live-streaming on platforms like TikTok. It begins with an overview of the Stimulus-Organism-Response (S-O-R) theory, which serves as the foundation for understanding how external stimuli influence consumer responses through internal processes. The chapter systematically examines various external factors affecting impulsive buying behavior, including the variety of selection, attractiveness of the platform, and price attributes. It then investigates the mediating roles of hedonic and utilitarian values in these relationships, providing a framework for the research hypotheses.

2.1 Stimulus-Organism-Response (S-O-R) Theory

Stimulus-Organism-Response (SOR) is a model that explains how the physical environment as a stimulus can influence a person's response, which is mediated by the organism or the individual's emotional reaction (Mehrabian & Russell, 1974 cited in Chan et al., 2017, p. 207). The SOR model suggests that changes in how people act or what they buy (in business setting) are influenced by the effectiveness of the external factors they encounter. In simpler terms, it means that the way a person reacts or decides to purchase something is largely affected by the kind of experiences or influences they are exposed to.

The S-O-R framework in the field of environmental psychology firstly developed by Mehrabian and Russell (1974) was then widely adopted to understand the impact of the environment on consumer responses, from brick and mortar to online retail (Fiore & Kim, 2007, p. 424). SOR theory is a psychological framework that seeks to explain and understand human behavior in response to various stimuli. The SOR framework has been widely applied in various disciplines, including marketing, consumer behavior, environmental psychology, and stress research. In the field of marketing and consumer behavior, the SOR theory has been instrumental in understanding how consumers respond to different marketing stimuli (Peng & Kim, 2014, p. 161). In environmental psychology, the SOR theory has been used to study how individuals respond to various environmental stimuli, such as noise, crowding, and natural landscapes. Researchers have applied the SOR framework to investigate how these stimuli influence people's emotional and behavioral responses, as well as their overall well-being.

In the context of live streaming, the SOR framework is also useful to understand how viewers respond to the stimuli presented in the live stream. The stimuli in this context include

the content being streamed and the overall experience of the live stream. Viewers perceive and interpret these stimuli, eliciting emotional and cognitive responses. Lee and Chen (2021, p. 1) investigated impulsive buying behaviors in live-streaming commerce using the SOR framework. Their study demonstrated that the immediacy and interactive nature of live streaming platforms significantly influence consumers' purchasing decisions. The real-time interaction between hosts and viewers creates an engaging shopping environment and can impact the viewers' engagement with the live stream, their likelihood of interacting with the streamer or other viewers, and their final reaction towards the livestreaming such as (impulsive) purchasing.

Therefore, the environmental psychology paradigm with the SOR framework in this research was used for three reasons (Parboteeah et al., 2009, p. 64). First, it can provide a theoretical understanding of the influence of external/environmental stimuli in an online context such as situational stimuli, live streaming stimuli, and marketing stimuli. Second, it can understand the role of mediation reactions to stimuli influencing online impulsive buying. Third, the S-O-R framework is often used as a basis in research on online impulsive buying (Chan et al., 2017, p. 207). It frames impulsive buying as a response resulting from exposure to stimuli rather than just a personality trait. Thus, the SOR framework can help identify the factors that influence these responses (Kim et al., 2018, p. 71).

2.2 Impulsive Buying Behavior in the context of live-streaming and external factors

The research and definition of Impulse buying can be dated back decades before the rise of Tiktok. In the field of Consumer Research, it was defined as a purchase that is not planned but arises in response to certain stimuli (Rook, 1987, p. 191). Unlike planned purchases, which often involve the use of a shopping list and careful pre-purchase consideration, impulse purchases occur spontaneously and without prior planning. These spontaneous decisions are typically triggered by various situational factors and stimuli encountered by the consumer at the point of sale or during the shopping experience (Fataron, 2019, p. 58).

Impulse buying behavior has been proven to be influenced by a range of external stimuli such as store layout, product displays, promotional offers, and sensory elements like music and lighting. These factors can create an enticing shopping environment that encourages spontaneous purchases.

In the digital age, the phenomenon of impulse buying has expanded to online shopping platforms. The convenience of online shopping, combined with sophisticated marketing techniques such as personalized recommendations and flash sales, further enhances the likelihood of impulse purchases. The immediacy and ease of online transactions, coupled with the anonymity and lack of social presence, can reduce consumers' cognitive control and increase impulsivity (LaRose, 2001, p. 11).

Zhao et al. (2021, p. 1667) conducted a meta-analysis focusing on online impulsive buying and its correlation with economic development levels. The study emphasized the role of website stimuli, such as ease of navigation, attractive layouts, and promotional offers, in influencing online impulsive buying behavior across different economic development levels. This research extends the existing literature on impulsive buying to the online context by showing how economic factors can shape consumer behavior in digital environments.

Additionally, Dawson and Kim (2010, p. 240) studied external cues of impulsive buying online. They emphasized the importance of website stimuli such as personalized recommendations and visually appealing product displays in triggering impulsive purchases. Internal triggers, including mood, emotions, and personality traits, also play a crucial role. Consumers in a positive mood or experiencing excitement are more likely to make impulsive purchases as they seek to prolong their positive emotional state.

2.2.1 The Impact of Variation of Selection on Impulsive Buying Behaviour

Situational stimuli are the first external stimuli that the current study examines. They are social or environmental factors related to a particular product/service or consumption occasion that influence consumers' purchasing responses. Although situational stimuli have been studied extensively in the context of offline impulsive buying, few studies have explored situational stimuli in the context of online and livestreaming impulsive buying. Chan et al. (2017, p. 9) found that the variety of selection was a significant factor. When customers are faced with many choices, they tend to make a more in-depth assessment of the products and are less likely to buy impulsively (Park et al., 2012, p. 1585).

While a diverse array of products can attract customers by offering more choices, it can also lead to decision paralysis, where the abundance of options overwhelms the consumer, prompting a more deliberate and less impulsive decision-making process. This phenomenon is known as the "paradox of choice," which suggests that too many options can

lead to increased cognitive load and decision fatigue, reducing the likelihood of impulsive purchases (Iyengar & Lepper, 2006, p. 997).

Moreover, the context of the online shopping environment plays a crucial role. In physical stores, consumers may feel pressured by their surroundings and other shoppers to make quicker decisions. In contrast, the online environment allows consumers more time and freedom to explore different options without external pressures, further contributing to more deliberate decision-making processes (Dholakia, 2000, p. 961). This is particularly relevant in livestreaming, where consumers can take the time to ask questions and get immediate responses from hosts, leading to more informed and less impulsive decisions.

Additionally, a study by Diehl and Poynor (2010, p. 321) examined the effects of assortment size on consumer decision-making and found that larger assortments can lead to more thoughtful, less impulsive choices. This is because larger assortments increase the cognitive load on consumers, causing them to slow down and consider their options more carefully (Diehl & Poynor, 2010, p. 315). Similarly, Mogilner et al. (2008, p. 210) observed that consumers faced with extensive choices are likely to experience decision fatigue, leading to more deliberate decision-making rather than impulsive actions. Therefore, the following hypothesis is:

H1: Variety of Selection has a negative influence on impulsive buying behaviours.

2.2.2 The Impact of Attractiveness on Impulsive Buying Behaviour

Attractiveness relates to the visual elements and ease of navigation that enhance the overall user experience of a shopping platform. Both visual appeal and ease of navigation are critical components of attractiveness, contributing to the usability and overall effectiveness of live-streaming shopping platforms. The visual appeal of a shopping platform plays a crucial role in enhancing the user experience and influencing consumer behaviors. Previous research has demonstrated that well-designed online shopping environments can have a significant impact on consumer behavior (Wells et al., 2011, p. 47). Attractive website designs, which include appealing visual elements such as color schemes, typography, and imagery, have been shown to encourage shoppers to engage in impulse buying (Zhang et al., 2022, p. 9). Visual elements not only attract attention but also create a sense of enjoyment and pleasure, which can lead to increased impulsive buying behavior (Zheng et al., 2019, p. 157).

Ease of navigation is another essential aspect of attractiveness that enhances the usability of a shopping platform. A user-friendly navigation system allows consumers to find

products effortlessly and complete their purchases quickly, reducing frustration and improving satisfaction (Wells et al., 2011, p. 39). Previous study by Kimiagari and Malafe (2021, p. 6) have shown that when users find it easy to navigate through a website, they are more likely to make impulsive purchases. Efficient navigation structures, such as clear menus, search functions, and intuitive layouts, contribute significantly to the overall attractiveness of the platform.

The visual presentation and ease of navigation together create a seamless and enjoyable shopping journey, which enhances the likelihood of impulsive purchases.

Therefore, the following hypotheses is:

H2: Attractiveness has a positive influence on online impulsive buying behaviour.

2.2.3 The Impact of Price Attributes on Impulsive Buying Behaviour

Marketing stimuli are stimuli provided by marketers or sellers to persuade consumers to make purchases (Chan et al., 2017, p. 210). The price attribute is one of the most common and influential marketing stimuli in both offline and online shopping environments (Zhang et al., 2021, p. 8). In the online shopping environment, consumers heavily rely on price information when making purchase decisions, especially since they cannot physically examine products before buying. The research by Park et al. (2012, p. 1588) revealed that price attributions had a significant positive direct impact on impulsive buying. When consumers perceive prices as attractive or favorable, they are more likely to engage in impulsive buying, even in the absence of physical product examination (Park et al., 2012, p. 1586).

Studies have shown that various pricing strategies can enhance the attractiveness of prices and stimulate impulsive purchases. For instance, discounted prices, promotional offers, and price bundling are common tactics that create a perception of value, encouraging consumers to make quick purchasing decisions without thorough deliberation (Peck & Childers, 2006, p. 770). Such pricing strategies exploit the consumer's desire for deals and savings, making them more prone to impulsive buying.

Further research by Jones et al. (2003, p. 504) highlighted the role of price discounts and perceived value in impulsive buying behavior. They found that consumers are more likely to make impulsive purchases when they perceive the price as a good deal or when there is a significant discount, which lowers the psychological barriers to buying (Jones et al., 2003, p. 504). This finding is supported by subsequent studies, such as those by Wu et al.

(2016, p. 99), which demonstrated that flash sales and time-limited discounts increase the urgency to purchase, thus driving impulsive buying behavior.

The impact of price attributes on impulsive buying is also influenced by individual consumer characteristics. Consumers with high levels of price sensitivity are more likely to respond to price-based promotions and engage in impulsive purchases when they perceive the prices to be favorable (Lichtenstein et al., 1993, p. 237). Furthermore, consumers who frequently shop online and are accustomed to comparing prices across different platforms may exhibit stronger impulsive buying tendencies when they encounter attractive price offers (Kukar-Kinney et al., 2009, p. 273).

Overall, the evidence suggests that price attributes play a crucial role in driving impulsive buying behavior in online shopping environments. Attractive pricing strategies and the effective presentation of price information can significantly influence consumers' purchasing decisions, leading to increased impulsivity.

Therefore, the hypothesis is:

H3: Price attributes have a positive influence on impulsive buying behavior.

2.3 The Organism of impulsive buying: Perceived Hedonic and Utilitarian Value as Mediators

As discussed in Section 2.2, external stimuli significantly impact impulsive buying behaviors, which could be the same context for live-streaming shopping settings. According to the SOR model, the organism between these observable parameters should be an internal factor that is triggered by stimuli and subsequently motivates the response. In this context, values, specifically hedonic and utilitarian, will be discussed as the response.

Hedonic values, driven by the desire for pleasure, novelty, and social interactions, stimulate impulsive purchases by creating an emotional bond with the shopping experience (Evangelin et al., 2021, p. 252). Conversely, utilitarian values, driven by practical benefits, result in more rational and deliberate evaluations (Seo & Lee, 2008, p. 492). This differentiation allows for a deeper understanding of the internal processes of organism that mediate the relationship between external stimuli and impulsive buying behavior.

Research conducted by Wongkitrungrueng and Assarut (2020, p. 551) supports that emotional engagement in live streaming drives impulsive buying by enhancing consumers' emotional responses and reducing their cognitive control. Their study highlights the significant role of consumers' emotions, spontaneous behaviors, and low cognitive control in

driving impulsive purchases, providing valuable insights into the emotional and psychological drivers of impulsive purchase decisions. Furthermore, previous studies indicate significant relationships between utilitarian and hedonic values and online impulsive buying behaviors (Kim & Eastin, 2011, p. 71; Zhang et al., 2022, p. 8).

Therefore, it is suggested that these two types of values, hedonic and utilitarian, can effectively mediate the impact of external stimuli on impulsive buying behaviors. This research aims to explore if this is true in Indonesia's TikTok live-streaming shopping context.

2.3.1 How Values Mediate the Relationship Between Variety of Selection and Impulsive Buying Behaviour

Study have shown that when customers are faced with a variety of selections, they may engage in a more rational and deliberate evaluation process to assess the utilitarian benefits of each option (Roehm & Roehm, 2005, p. 330). Moreover, when customers are presented with a wide array of choices, they tend to engage in a more rational and deliberate evaluation process to assess the utilitarian benefits of each option (Williams et al., 2017, p. 369). The presence of utilitarian value as a mediator suggests that when consumers perceive high utilitarian value in the available options, the negative influence of the variety of selection on impulsive buying is likely to be stronger. This is because practical benefits become a more significant factor in the decision-making process. This leads to the following hypothesis:

H4: Utilitarian value mediates the effect of variety of selection on impulsive buying behaviors.

Moe (2003, p. 31) indicates that a wide selection can enhance hedonic shopping value by providing consumers with a sense of exploration and entertainment. When consumers encounter a variety of selections, they may be drawn into the experience not just to make a purchase but to enjoy the process itself. This hedonic aspect of shopping can serve as a mediator in the relationship between variety of selection and impulsive buying behavior. The pleasure derived from browsing a wide array of options can lead to impulsive purchases (Zhang et al., 2018, p. 525), as the enjoyable experience may trigger the desire for immediate gratification through buying. This leads to the following hypothesis:

H5: Hedonic value mediates the effect of variety of selection on impulsive buying behavior.

2.3.2 How Values Mediate the Relationship Between Attractiveness and Impulsive Buying Behaviour

The attractiveness of a platform enhances the consumer's utilitarian value by making the shopping experience more efficient and straightforward, thereby encouraging impulsive buying (Gao et al., 2023, p. 6). For instance, an attractive and well-designed website can facilitate easier navigation and product discovery, leading to a perception of greater utility and, consequently, a higher likelihood of impulsive purchases (Xu et al., 2020, p. 145). Moreove, study done by Bak et al. (2022, p. 10) showcase that attractive and visual aesthetic stimulation, such as an appealing user interface, significantly impacts impulse buying patterns. This suggests that the practical benefits derived from an attractive online shopping environment can serve as a critical pathway through which attractiveness influences impulsive buying behavior. This leads to the following hypothesis:

H6: Utilitarian value mediates the influence of attractiveness on online impulsive buying behavior.

The attractiveness of a platform can significantly enhance hedonic value by providing a visually appealing and enjoyable shopping experience (Kimiagari & Asadi Malafe, 2021, p. 6). This enhancement in hedonic value can stimulate consumers' emotional responses and lead to impulsive buying (Verhagen & van Dolen, 2011, p. 321). Moreover, based on Joseph and Balqiah (2022, p. 3) the simplicity of navigating the application, combined with the effortless access to information and interaction with sellers, making the process enjoyable and satisfying for consumers. For example, an attractive presentation of products can evoke positive emotions and a sense of enjoyment, making consumers more inclined to make unplanned purchases driven by these emotional responses. This leads to the following hypothesis:

H7: Hedonic value mediates the influence of attractiveness on online impulsive buying behavior.

2.3.3 How Values Mediate the Relationship Between Price Attributes and Impulsive Buying Behaviour

Utilitarian value mediates the influence of price attributes on online impulsive buying behaviors by providing a rational basis for the impulsive decision-making process (Gao et al., 2023, p. 14). Consumers are more likely to engage in impulsive buying when they perceive that the price attributes enhance the practical benefits and economic efficiency of the purchase. This mediation effect underscores the importance of strategically leveraging price attributes to enhance perceived utilitarian value and stimulate impulsive buying in the online shopping context. This leads to the following hypothesis:

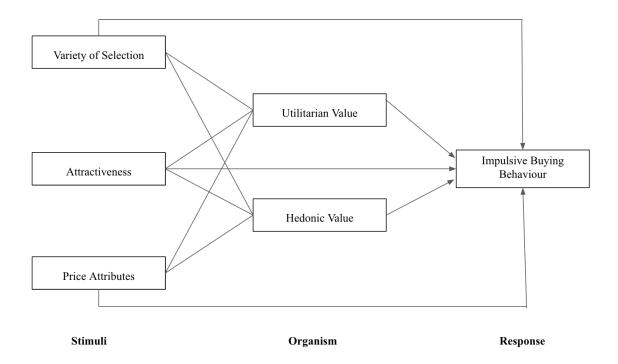
H8: Utilitarian value mediates the influence of price attributes on online impulsive buying behavior.

Furthermore, Park et al. (2012, p. 1588) found that price discounts and promotions increased the perceived hedonic value of shopping, which subsequently led to higher impulsive buying. Specifically, price discounts and favorable price attributes can enhance the hedonic value of shopping by providing consumers with a sense of excitement, achievement, and enjoyment. This heightened hedonic value, in turn, increases the likelihood of impulsive purchases as consumers are driven by the desire to experience pleasure and gratification (Ozen and Engizek, 2014, p. 8; Park and Forney, 2011, p. 33). This leads to the following hypothesis:

H9: Hedonic value mediates the influence of price attributes on online impulsive buying behavior.

The proposed research framework model is shown in Figure 2.1. This model illustrates a conceptual framework for understanding impulsive purchasing behaviours within a TikTok livestreaming consumer context.

Figure 2.1: Research Framework Model



3. Method

3.1 Justification of Research Method

To address the research questions effectively, a quantitative research methodology was employed, which is well-suited for examining the relationships between variables through the collection and analysis of numerical data. Creswell (1994, p. 32) defines quantitative methodologies as systematic investigations that employ statistical techniques to evaluate hypotheses and understand phenomena. This approach was selected to provide a structured and objective means of analyzing the data collected.

In this study, structured questionnaires were utilized as the primary tool for data collection. These questionnaires incorporated various types of questions, including multiple-choice, dichotomous, and Likert-scale formats (Malhotra, 2010, p. 264). The structured nature of the questions ensured that the data collected were consistent and comparable across all respondents, which is essential for conducting robust statistical analyses.

The decision to use surveys was driven by several key advantages. First, surveys allow for the efficient collection of data from a large and diverse sample, enhancing the generalizability of the findings. This is particularly important in understanding consumer behavior patterns across a broad demographic. Second, surveys can capture a wide array of information, including demographic details, attitudes, preferences, and behaviors, providing a comprehensive dataset for analysis.

The representativeness and reliability of survey data are critical for ensuring that the findings can be generalized to the broader population. In this context, the large sample size achieved through the survey method contributed to the robustness of the results. This methodological choice is particularly pertinent given the study's focus on TikTok live-stream shopping behaviors in Indonesia, where understanding diverse consumer profiles is essential.

Additionally, the quantitative approach facilitated the objective measurement and statistical testing of hypotheses. This method enabled the exploration of relationships between variables such as variety of selection, attractiveness, price attributes, and impulsive buying behavior. By employing statistical software (SPSS version 27), the study was able to conduct detailed analyses, including descriptive statistics, factor analysis, reliability testing, and regression analyses.

Furthermore, the structured and systematic nature of quantitative research ensures that the findings are not influenced by researcher bias, thus enhancing the validity of the results.

This is particularly important in social sciences research, where subjective interpretations can often skew data.

In summary, the adoption of a quantitative research methodology was justified by its ability to provide a comprehensive, objective, and systematic analysis of numerical data. This approach enabled the effective exploration of relationships between various consumer behavior variables, thereby validating theoretical propositions within the specific context of Indonesia's social media commerce landscape.

3.2 Operationalization

This section introduced the scales that were used to construct the questionnaire. To answer the research questions and verify the hypotheses, a standard questionnaire survey method was developed according to previous research. Multiple items were given for each variable in the hypotheses based on past research that had shown validity and reliability. The questionnaire in this study used several types of question formats, multiple choice, and a 1-6 Likert scale where one indicated "strongly disagree", two indicated "disagree", three indicated "somewhat disagree", four indicated "somewhat agree", five indicated "agree", and six indicated "strongly agree".

Variety of Selection. The variety of choices available to consumers, referred to as "Variety of Selection", was measured in this study using the scale established by Park et al. (2012, p. 1586). This scale consists of four items assessed on a 6-point Likert scale. Example items include: "The shopping pages deal with a variety of fashion items" and "The shopping pages have a wide assortment of products with different prices". This scale captures the essence of variety of selection as discussed in Chapter 2 by assessing the breadth and depth of product offerings available to consumers. This scale has been used in exploring consumer behavior and product assortment perceptions (Park et al., 2012, p. 1586).

Attractiveness. The visual appeal of the shopping environment, referred to as "Attractiveness", was measured using the scale developed by Wells et al. (2011). This scale consists of four items assessed on a 6-point Likert scale. Example items include: "The layout of the shopping pages is attractive" and "The shopping pages display a visually pleasing design". This scale aligns with the conceptualization of attractiveness in Chapter 2 by focusing on the aesthetic qualities of the online shopping interface. This scale was used to examine the influence of visual appeal and ease of navigation on consumer engagement and purchase intentions (Wells et al., 2011, p. 39).

Price Attribute. The perceived value and fairness of product pricing, referred to as "Price Attribute", was measured using items adapted from Park et al. (2012, p. 1586). This scale consists of three items assessed on a 6-point Likert scale. Example items include: "The shopping pages carry products with reasonable prices" and "Discounted prices are very cheap in the shopping pages". This scale captures the essence of Price Attribute by measuring consumers' perceptions of price fairness and attractiveness, which are crucial for impulsive buying as discussed in Chapter 2.

Hedonic Value. The enjoyment and pleasure derived from the shopping experience, referred to as "Hedonic Value", was measured using the scale developed by Park et al. (2012, p. 1586). This scale consists of four items assessed on a 6-point Likert scale. Example items include: "During my browsing, I can forget my issues and feel relaxed" and "I gain enough pleasure from browsing to get a time out". This scale captures the essence of Hedonic Value as it evaluates the emotional and enjoyable aspects of the shopping experience, aligning with the S-O-R framework's focus on internal emotional responses.

Utilitarian Value. The functional and practical benefits of the shopping experience, referred to as "Utilitarian Value", was measured using the scale developed by Park et al. (2012, p. 1586). This scale consists of five items assessed on a 5-point Likert scale. Example items include: "I search to purchase better products in terms of quality or price" and "I browse to collect information concerning products". This scale captures Utilitarian Value by measuring when consumers perceive high practical benefits from shopping.

Impulsive Buying Behavior. The tendency to make unplanned, immediate purchases, referred to as "Impulsive Buying Behavior", was measured using items adapted from Park et al. (2012, 1586). This scale consists of four items assessed on a 6-point Likert scale. Example items include: "I buy items on a whim" and "When I find something I like, I purchase it immediately". This scale captures Impulsive Buying Behavior by measuring the spontaneous and unplanned nature of purchases.

For all scales, the items were adapted to the context of TikTok Live for this research. The original items were developed for general online shopping contexts, but they were modified to specifically reference TikTok Live shopping experiences for the purposes of this study.

The last part of the survey contained demographic questions, such as about the participants' ages, genders, etc. Once the participants had answered all the questions, they were shown a message of appreciation, marking the end of their participation in the survey.

3.3 Population, Sampling Criteria, and Sampling

This research specifically targeted TikTok live stream shopping users in Indonesia who had previously engaged in live stream shopping and made purchases on the platform. The study used a non-probability sampling method, which was suitable given the specific focus and drawbacks of the research. Non-probability sampling was selected because it allowed for targeted respondents who fit the necessary criteria, ensuring that the sample was relevant to the research question.

Respondents were required to meet several key criteria to participate in the study. Firstly, they needed to be domiciled in Indonesia to ensure the geographic relevance of the data. Secondly, they had to be active users of TikTok, they have purchased a product live stream shopping at least once, which was essential to capture accurate and meaningful insights into their shopping behaviors on the platform. Lastly, respondents needed to be 18 years old or older to provide informed consent and to ensure compliance with ethical research standards.

Primary data were collected directly from respondents through online questionnaires, which were distributed using the Qualtrics application. This method was chosen for its efficiency and ability to reach a wide audience in quickly time manner. To ensure a broad and representative sample, the questionnaires were disseminated across multiple social media platforms, including Twitter, Instagram, and Facebook, as well as through digital messaging applications like WhatsApp. These platforms were selected to maximize the survey's reach and effectiveness.

Distributing the survey on platforms other than TikTok had several advantages. Platforms like WhatsApp, Twitter, and Facebook have a broader demographic reach, encompassing users of various age groups, which aligns with the study's aim to obtain a representative sample of the population. Furthermore, content on Twitter and Facebook tends to have greater visibility compared to TikTok's low spand. This decision also was also due to avoiding potential biases associated with TikTok's unique content algorithm and user engagement patterns, which could affect the sample representation.

3.4 Data Collection

Data collection was carried out in three stages, namely the wording test stage, the pretest stage, and finally the main-test stage. During the wording test stage, feedback was gathered from five respondents on whether the choice of words in the questionnaire was easy to understand. This was a crucial step to ensure the clarity and comprehensibility of the questionnaire. Furthermore, data collection for the pre-test was carried out on 30 respondents and then subjected to validity and reliability tests. This step was important to ensure the questionnaire was valid and reliable before it was distributed to the larger sample. Finally, main-test data collection was carried out on individuals who met the criteria required in this research.

Moreover, to ensure that the data collected was relevant and accurate, three filter questions were included at the beginning of the survey: "How old are you?", "Have you purchased a product from TikTok Live Streaming?", and "Do you currently live in Indonesia?" These filter questions were used to exclude respondents who did not meet the necessary criteria for the study, such as those who were under 18 years old, had never purchased from TikTok Live Streaming, or were not residing in Indonesia.

Because the most commonly used language in Indonesia is Bahasa Indonesia, the questionnaire needed to be translated into Bahasa Indonesia with back-to-back translation. This process ensured that the questions were culturally relevant and understandable to the respondents, maintaining the validity and reliability of the data collected. The translated version of the questionnaire is included in the appendix.

Finally, the questionnaire was then distributed from 11 April 2024 until 25 April 2024. The distribution of the questionnaire was stoped once the sample number reached 428 respondents.

3.5 Data Analysis

The analysis of the collected data was conducted using SPSS version 27 software. The procedure began with data cleansing and screening to ensure the dataset's integrity and quality. Utilizing SPSS for data cleaning is crucial as it helps detect errors such as out-of-range values, which could distort the results of the analysis.

The data cleaning process comprised several essential steps. Initially, the data were filtered based on the completeness of responses. Incomplete responses or those directed to the end of the questionnaire through the filtering questions were excluded from the dataset. This step was critical to ensure that only valid and comprehensive responses were included in the final dataset. Additionally, responses from the pre-test stage were eliminated to maintain the

integrity and focus of the main study. After this initial cleaning, the number of respondents was reduced from 428 to 316, ensuring a robust and accurate dataset for further analysis.

Once the initial cleaning was completed, the dataset was prepared for analysis. This preparation ensured that the dataset was clean and ready for detailed analysis, thereby minimizing the risk of errors and enhancing the validity of the study's findings.

Descriptive statistics were then applied to provide a comprehensive overview of the sample's characteristics, including measures such as mean and standard deviation. To ensure the validity of the chosen and modified scales, a confirmatory factor analysis was conducted on the survey items related to each scale. This analysis helped verify the constructs' validity and ensure they accurately reflected the underlying theoretical concepts.

Reliability was assessed using Cronbach's alpha, which measures the internal consistency of each scale. High Cronbach's alpha values indicated that the scales were reliable and that the items within each scale were consistently measuring the same construct.

The core of the hypothesis testing involved linear regression analysis. This statistical technique allowed for examining the relationships between an independent variable (such as variety of selection, attractiveness, perceived price attribute, hedonic value, or utilitarian value) and the dependent variable (impulsive buying behavior). Linear regression analysis enabled the assessment of the impact of each predictor individually on the outcome variable, providing valuable insights into the factors influencing impulsive buying behavior.

By following this comprehensive data analysis procedure, the study was able to derive meaningful and robust findings, contributing to the understanding of consumer behavior in the context of TikTok live stream shopping in Indonesia.

3.6 Ethical Consideration

Ethical considerations were conducted in this study to protect participants and ensuring that this research meets ethical standards. Participants needed to be 18 years or older, this requirement was set to ensure that participants are legally adults and capable in providing informed consent without the need for guardian approval. Participants were also informed before starting the survey that the survey would take approximately 10-15 minutes. Any of the participants' information would remain confidential and entirely anonymous. The data collected will not be shared with third parties and will be used solely for this thesis study.

Participation was entirely voluntary, with no right or wrong answers, encouraging honest responses. Participants were informed that they could withdraw from the study at any time without any consequences. Participants acknowledged that they had read the introduction, understood the study's purpose, and consented to participate.

4. Result

The data that was collected was analyzed with SPSS version 27. Started by a descriptive analysis of the sample. Additionally, factor analyses and reliability tests were performed on the pre-existing variables. Finally, to address the research question, the results of all statistical analyses conducted using SPSS are thoroughly explained in the following sections. Finally, the results of the analysis will be discussed, which test the hypotheses of this study.

4.1 Sample description

After data cleaning, the sample for this study consists of 316 respondents, representing various demographic and socioeconomic backgrounds. The gender distribution among the respondents is as follows: 78 respondents (24.7%) identified as male, 236 respondents (74.7%) identified as female, and 2 respondents (0.6%) chose not to disclose their gender.

The respondents' ages range from 18 to 61 years old. The mean age of the participants was 28.97 years (SD = 8.21). The most represented age group is 25 years old, with 42 respondents (13.3%). This is followed by 26 years old with 27 respondents (8.5%), 24 years old with 23 respondents (7.3%), and 23 years old with 17 respondents (5.4%). The least represented ages are 45, 56, and 61 years old, each with only 1 respondent (0.3%). The age distribution shows that a significant portion of the respondents is in their mid-20s, highlighting a younger demographic engaged in TikTok live streaming purchases.

The respondents come from different provinces across Indonesia, showcasing a diverse geographic representation. The largest group of respondents is from DKI Jakarta, with 117 individuals (37.0%). This is followed by respondents from West Java (57 respondents, 18.0%), Central Java (38 respondents, 12.0%), and Banten (34 respondents, 10.8%). Other provinces represented include East Java (24 respondents, 7.6%), South Sulawesi (10 respondents, 3.2%), and the Special Region of Yogyakarta (8 respondents, 2.5%). Smaller groups of respondents come from various other provinces, each contributing less than 2% to the total sample.

In terms of educational background, the majority of respondents hold a Bachelor's degree or equivalent (S1/D4/Setara), accounting for 187 individuals (59.2%). High school graduates (SMA) make up the second-largest group with 102 respondents (32.3%). Other educational qualifications include Master's degree (S2) with 17 respondents (5.4%), and a

small number of respondents with Doctorate (S3), junior high school (SMP), or other educational levels.

The respondents also reported their spending on TikTok livestreaming purchases. The majority spend between 100,000 and 200,000 IDR per purchase, representing 142 respondents (44.9%). This is followed by 70 respondents (22.2%) who spend less than 100,000 IDR, 61 respondents (19.3%) who spend between 200,000 and 300,000 IDR, and 43 respondents (13.6%) who spend more than 300,000 IDR per purchase.

Lastly, the time spent on TikTok per day was also recorded. 98 respondents (31.0%) spend less than 1 hour per day on TikTok, another 98 respondents (31.0%) spend between 1 and 2 hours, 68 respondents (21.5%) spend between 2 and 3 hours, and 52 respondents (16.5%) spend more than 3 hours per day on the platform.

4.2 Factor Analysis and Reliability

To confirm the factor analysis, a posteriori check evaluation was performed. Three criteria had to be met: first, more than one-third of the correlations needed to be greater than .30; second, the KMO value had to be .60 or above; and third, Bartlett's test of Sphericity had to be significant (p < .05). All these conditions were satisfied for the scales in this research, thereby validating the factor analysis.

Moreover, to ensure the reliability of the measured variable, an empirical analysis was performed using Cronbach's α coefficient to evaluate internal consistency reliability. Generally, it is suggested that Cronbach's α coefficient should be 0.6 or higher to confirm reliability. This standard was also utilized in this research.

4.2.1 Factor Analysis and Reliability of Variety of Selection

The 4 items which were Likert-scale based were entered into factor analysis using Principal Components extraction. The KMO value was 0.79, and Bartlett's test of Sphericity was significant with $\chi 2$ (N = 316, 6) = 566.78, p < .001. The resultant model explained 68.8% of the variance in the variety of selection. The factor loadings of the four items are presented in the table below. Moreover, in measuring the reliability, Cronbach's alpha was .84. This analysis confirms that the measurement scale of variety of selection is internally consistent, reliable, and valid.

Table 4.1. Factor loadings, explained variance and reliability for the scale *Variety of Selection* (N = 316)

Item	Variety of Selection
Tiktok Live Streaming sells various types of goods	.857
Tiktok Live Streaming has a variety of products at different prices.	.863
Tiktok Live Streaming sells goods from various brands.	.881
Tiktok Live Streaming sells the latest products.	.704
R^2	68.7%
Eigenvalue	2.75
Cronbach's α	.84

4.2.2 Factor Analysis and Reliability of Attractiveness

The 4 items which were Likert-scale based were entered into factor analysis using Principal Components extraction. The KMO value was 0.74, and Bartlett's test of Sphericity was significant with $\chi 2$ (N = 316, 6) = 886.72, p < .001. The resultant model explained 76.7% of the variance in *Attractiveness*. The factor loadings of the four items are presented in the table below. Moreover, in measuring the reliability, Cronbach's alpha was 0.90. This analysis confirms that the measurement scale of *Attractiveness* is internally consistent, reliable, and valid.

Table 4.2. Factor loadings, explained variance and reliability for the scale *Attractiveness* (N = 316)

Item	Attractiveness
Navigating in Tiktok Livestreaming for product purchased is easy for me.	.880
Tiktok Livestreaming provides concise and clear navigation menus / icons to purchase my product.	.873
Tiktok Livestreaming are visually pleasing.	.877
The layout of Tiktok Livestreaming is attractive.	.873
R^2	76.7%
Eigenvalue	3.07
Cronbach's α	.90

4.2.3 Factor Analysis and Reliability of Price Attributes

The 3 items that were Likert-scale based were entered into factor analysis using Principal Components extraction. The KMO value was 0.72, and Bartlett's test of Sphericity was significant with $\chi 2$ (N = 316, 3) = 526.48, p < .001. The resultant model explained 80.5% of the variance in price attributes. The factor loadings of the three items are presented in the table below. Moreover, in measuring the reliability, Cronbach's alpha was 0.88. This analysis confirms that the measurement scale of *Price Attributes* is internally consistent, reliable, and valid.

Table 4.3. Factor loadings, explained variance and reliability for the scale *Price Attributes* (N = 316)

Item	Price Attributes
Tiktok Live Streaming carries products with reasonable prices.	.858
Discounted prices are very cheap in TikTok Livestreaming	.907
The price of products in Tiktok Livestreaming platform is economical.	.925
R^2	80.5%
Eigenvalue	2.41
Cronbach's α	.88

4.2.4 Factor Analysis and Reliability of Utilitarian Value

The 5 items which were Likert-scale based were entered into factor analysis using Principal Components extraction. The KMO value was 0.82, and Bartlett's test of Sphericity was significant with $\chi 2$ (N = 316, 10) = 603.55, p < .001. The resultant model explained 61.5% of the variance in utilitarian value. The factor loadings of the five items are presented in the table below. Moreover, in measuring the reliability, Cronbach's alpha was 0.84. This analysis confirms that the measurement scale of *Utilitarian Value* is internally consistent, reliable, and valid.

Table 4.4. Factor loadings, explained variance and reliability for the scale *Utilitarian Value* (N = 316)

Item	Utilitarian Value
I watch Tiktok Live Streaming to buy things that are better in price or quality.	.792
I watched Tiktok Live Streaming to gather information about the product.	.800
I watch TikTok Live Streaming to compare items.	.769
I watch TikTok Live Streaming to get as much added value as possible.	.760
I watch Tiktok Live Streaming for efficient online shopping.	.798
R^2	61.5%
Eigenvalue	3.07
Cronbach's α	.84

4.2.5 Factor Analysis and Reliability of Hedonic Value

The 4 items which were Likert-scale based were entered into factor analysis using Principal Components extraction. The KMO value was 0.78, and Bartlett's test of Sphericity was significant with $\chi 2$ (N = 316, 6) = 581.25, p < .001. The resultant model explained 68.4% of the variance in hedonic value. The factor loadings of the four items are presented in the table below. Moreover, in measuring the reliability, Cronbach's alpha was 0.84. This analysis confirms that the measurement scale of *Hedonic Value* is internally consistent, reliable, and valid.

Table 4.5. Factor loadings, explained variance and reliability for the scale $Hedonic\ Value\ (N=316)$

Item	Hedonic Value
When watching Tiktok Live Streaming I can forget about my problems and feel relaxed.	.849
While watching Tiktok Live Streaming I feel very excited.	.849
I gain enough pleasure from Tiktok Livestreaming to get a time out.	.847
I browse items on Tiktok Live Streaming just for fun.	.689
R^2	68.4%
Eigenvalue	2.74
Cronbach's α	.84

4.2.6 Factor Analysis and Reliability of Impulsive Buying Behaviour

The 4 items which were Likert-scale based were entered into factor analysis using Principal Components extraction. The KMO value was 0.81, and Bartlett's test of Sphericity was significant with $\chi 2$ (N = 316, 6) = 662.37, p < .001. The resultant model explained 72.1% of the variance in impulsive buying behavior. The factor loadings of the four items are presented in the table below. Moreover, in measuring the reliability, Cronbach's alpha was 0.87. This analysis confirms that the measurement scale of *Impulsive Buying Behaviour* is internally consistent, reliable, and valid.

Table 4.6. Factor loadings, explained variance and reliability for the scale *Impulsive Buying Behaviour* (N = 316)

Item	Impulsive Buying Behaviour
I buy items on a whim on TikTok Livestreaming.	.886
During Tiktok Livestreaming, I buy products without a lot of thinking.	.911
I tend to buy things I have no desire to buy during Tiktok Livestreaming.	.775
When I find something I like on TikTok Live Streaming, I purchase it immediately.	.819
R^2	72.1%
Eigenvalue	2.89
Cronbach's α	.87

4.3 The direct effect of external factors on Impulsive Buying Behavior

4.3.1 The Impact of Variety of Selection on Impulsive Buying Behavior

To test H1, a simple linear regression analysis was conducted to test *Variety of Selection* (DV) on *Impulsive Buying Behavior* (IV). The model was found to be significant, F(1, 314) = 11.33, p < .001. This regression test was useful for predicting *Impulsive Buying Behaviour*, as 3.5% of the variance in *Impulsive Buying Behaviour* could be explained by *Variety of Selection* ($R^2 = .03$). *Variety of Selection* had a positive significant influence on *Impulsive Buying Behaviour* ($\beta = .19$, t(314) = 3.37, p < .001). Therefore, based on these results, H1 was rejected.

4.3.2 The Impact of Attractiveness on Impulsive Buying Behavior

To test the hypothesis a simple linear regression analysis was conducted *Attractiveness* (DV) on *Impulsive Buying Behavior* (IV). The model was found to be significant, F(1, 314) = 42.31, p < .001. This regression test was useful for predicting *Impulsive Buying Behaviour*, as 11.9% of the variance in *Impulsive Buying Behaviour* could be explained by *Attractiveness* ($R^2 = .12$). *Attractiveness* had a positive significant influence on *Impulsive Buying Behaviour* ($\beta = .34$, t (314) = 6.51, p < .001,). Based on these results, the hypothesis that *Attractiveness* would predict *Impulsive Buying Behaviour* was accepted. Therefore, based on these results, the H2 was accepted.

4.3.3 The Impact of Price Attributes on Impulsive Buying Behavior

To test the hypothesis between *Price Attributes* (DV) and *Impulsive Buying Behaviour* (IV), a simple linear regression analysis was conducted. The model was found to be significant, F(1, 314) = 33.35, p < .001 This regression test was useful for predicting Impulsive Buying Behaviour, as 9.6% of the variance in *Impulsive Buying Behaviour* could be explained by *Price Attributes* ($R^2 = .07$). *Price Attributes* had a positive significant influence on *Impulsive Buying Behaviour* ($\beta = .31$, t(314) = 5.78, p < .001,). Therefore, based on these results, the H3 was accepted.

4.4 Mediating Effect of Value

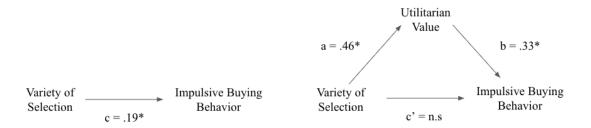
4.4.1 Mediating Effect of Utilitarian Value on Variety of Selection to Impulsive Buying Behavior

The first model examines the impact of the independent variable, *Variety of Selection*, on the mediator, *Utilitarian Value*. Results indicated that the *Variety of Selection* significantly predicted the *Utilitarian Value* ($R^2 = .21$), with an F(1, 314) = 82.35, p < .001. The coefficients for this model showed that the Variety of Selection was $\beta = .46$, t(314) = 9.08, p < .001.

The second model evaluates the effect of the independent variable, *Variety of Selection*, on the dependent variable, *Impulsive Buying Behaviour*. This model was already discussed and analyzed in previous section 4.3.1.

The third model incorporates the independent and mediator variables to predict the dependent variable. The results indicated that the model was significant ($R^2 = .12$) with an F (2, 313) = 21.00, p < .001. The coefficients for this model showed the *Variety of Selection* was $\beta = .04$, t (313) = .65, p = .517, and the *Utilitarian Value* was $\beta = .33$, t (313) = 5.44, p < .001. The summary of these results is shown in Figure 4.1 below.

Figure 4.1: Summary of Direct and Indirect Causality of Hypothesis 4



The results indicate that Variety of Selection significantly predicts the Utilitarian Value and the Impulsive Buying Behaviour when analyzed separately. However, when both predictors (Variety of Selection and Utilitarian Value) are included in the model predicting Impulsive Buying Behaviour, the effect of Variety of Selection is no longer significant (p = .517). In contrast, the Utilitarian Value remains a significant predictor (p < .001). Given that the direct effect of Variety of Selection on Impulsive Buying Behaviour becomes non-significant when the mediator is included, this indicates full mediation. Thus, the variety of selection influences impulsive buying behaviour indirectly through utilitarian values, demonstrating a full mediation effect. H4 was accepted.

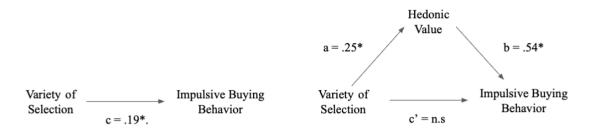
4.4.2 Mediating Effect of Hedonic Value on Variety of Selection to Impulsive Buying Behavior

The first model examines the impact of the independent variable, *Variety of Selection*, on the mediator, *Hedonic Value*. Results indicated that the *Variety of Selection* significantly predicted the *Hedonic Value* ($R^2 = .06$), with an F(1, 314) = 20.88, p < .001. The coefficients for this model showed the *Variety of Selection* was $\beta = .25$, t(314) = 4.57, p < .001.

The second model evaluates the effect of the independent variable, *Variety of Selection*, on the dependent variable, *Impulsive Buying Behaviour*. This model also showed a significant prediction as analyzed in previous section 4.3.1.

The third model incorporates both the independent variable and the mediator to predict the dependent variable. The results indicated that the model was significant $R^2 = .30$) with an F(2, 313) = 68.31, p < .001. The coefficients for this model showed the *Variety of Selection* was $\beta = .05$, t = 1.09, p = .278, and the *Hedonic Value* $\beta = .54$, t(313) = 11.00, p < .001. The summary of these results is shown in Figure 4.2 below.

Figure 4.2: Summary of Direct and Indirect Causality of Hypothesis 5



The results indicate that Variety of Selection significantly predicts both the Hedonic Value and the Impulsive Buying Behaviour when analyzed separately. However, when both predictors (Variety of Selection and Hedonic Value) are included in the model predicting Impulsive Buying Behaviour, the effect of Variety of Selection is no longer significant (p = .278), whereas the Hedonic Value remains a significant predictor (p < .001). This suggests that the Hedonic Value mediates the relationship between Variety of Selection and Impulsive Buying Behaviour. The mediation effect is confirmed by the reduction in the significance of the Variety of Selection when the mediator is included. Given that the direct effect of Variety of Selection on Impulsive Buying Behaviour becomes non-significant when the mediator is included, this indicates full mediation. Thus, the Variety of Selection influences impulsive Suving Selection indirectly through the Selection Selection influences impulsive Selection Selection indirectly through the Selection Selection influences impulsive Selection Selection indirectly through the Selection Selection influences impulsive Selection Selection indirectly through the Selection Selection influences impulsive

4.4.3 Mediating Effect of Utilitarian Value on Attractiveness to Impulsive Buying Behavior

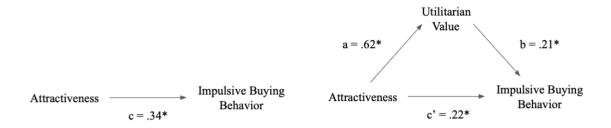
The first model examines the impact of the independent variable, *Attractiveness*, on the mediator, *Utilitarian Value*. Results indicated that the *Attractiveness* significantly predicted the *Utilitarian Value* ($R^2 = .38$), with an F(1, 314) = 193.12, p < .001. The coefficients for this model showed that the *Attractiveness* was $\beta = .62$, t(314) = 13.90, p < .001.

The second model evaluates the effect of the independent variable, *Attractiveness*, on the dependent variable, *Impulsive Buying Behaviour*. This model also showed a significant prediction as analyzed in previous section 4.3.2.

The third model incorporates both the independent variable and the mediator to predict the dependent variable. The results indicated that the model was significant ($R^2 = .15$),

with an F(2, 313) = 26.73, p < .001. The coefficients for this model showed the *Attractiveness* was $\beta = .22$, t = 3.25, p < .001, and the *Utilitarian Value* was $\beta = .21$, t(313) = 3.15, p = .002. The summary of these results is shown in Figure 4.3 below.

Figure 4.3: Summary of Direct and Indirect Causality of Hypothesis 6



The results indicate that *Attractiveness* significantly predicts both the *Utilitarian Value* and the *Impulsive Buying Behaviour* when analyzed separately. However, when both predictors (*Attractiveness* and *Utilitarian Value*) are included in the model predicting *Impulsive Buying Behaviour*, the effect of *Attractiveness* is reduced but remains significant (*p* < .001), whereas the *Utilitarian Value* also remains a significant predictor (*p* = .002). This suggests that the *Utilitarian Value* partially mediates the relationship between *Attractiveness* and *Impulsive Buying Behaviour*. The mediation effect is confirmed by the reduction in the significance of the *Attractiveness* when the mediator is included. Given that the direct effect of *Attractiveness* on *Impulsive Buying Behaviour* remains significant but reduced when the mediator is included, this indicates partial mediation. Thus, the *Attractiveness* influences *Impulsive Buying Behaviour* both directly and indirectly through the *Utilitarian Value*, demonstrating a partial mediation effect. H6 was accepted.

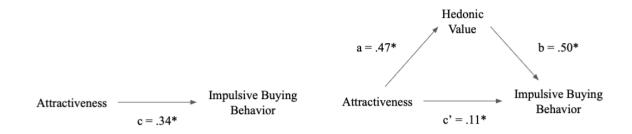
4.4.4 Mediating Effect of Hedonic Value on Attractiveness to Impulsive Buying Behavior
The mediation effect was analyzed using a series of regression analyses. The first
model examines the impact of the independent variable, *Attractiveness*, on the mediator, *Hedonic Value*. Results indicated that the *Attractiveness* significantly predicted the *Hedonic*

Value (R^2 = .22), with an F (1, 314) = 90.88, p < .000. The coefficients for this model showed that the *Attractiveness* was β = .47, t (314) = 9.53, p < .001.

The second model evaluates the effect of the independent variable, *Attractiveness*, on the dependent variable, *Impulsive Buying Behaviour*. This model was already discussed and analyzed in previous section 4.3.2.

The third model incorporates the independent and mediator variables to predict the dependent variable. The results indicated that the model was significant ($R^2 = .31$), with an F (2, 313) = 70.46, p < .000. The coefficients for this model showed the *Attractiveness* was $\beta = .11$, t (313) = 2.05, p = .042, and the *Hedonic Value* was $\beta = .50$, t (313) = 9.33, p < .001. The summary of these results is shown in Figure 4.4 below.

Figure 4.4 Summary of Direct and Indirect Causality of Hypothesis 7



The results indicate that Attractiveness significantly predicts both the $Hedonic\ Value$ and the $Impulsive\ Buying\ Behaviour$ when analyzed separately. However, when both predictors (Attractiveness and $Hedonic\ Value$) are included in the model predicting $Impulsive\ Buying\ Behaviour$, the effect of Attractiveness is reduced but remains significant (p=.042), whereas the $Hedonic\ Value$ also remains a significant predictor (p<.001). This suggests that the $Hedonic\ Value$ partially mediates the relationship between Attractiveness and $Impulsive\ Buying\ Behaviour$. The mediation effect is confirmed by the reduction in the significance of the Attractiveness when the mediator is included. Given that the direct effect of Attractiveness on $Impulsive\ Buying\ Behaviour$ remains significant but reduced when the mediator is included, this indicates partial mediation. Thus, Attractiveness, directly and indirectly, influences $Impulsive\ Buying\ Behavior$ through the $Hedonic\ Value$, demonstrating a partial mediation effect. H7 was accepted.

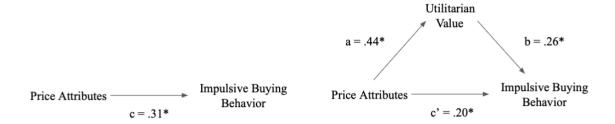
4.4.5 Mediating Effect of Utilitarian Value on Price Attributes to Impulsive Buying Behavior

The first model examines the impact of the independent variable, *Price Attributes*, on the mediator, *Utilitarian Value*. Results indicated that the Price Attributes significantly predicted the *Utilitarian Value* ($R^2 = .20$), with an F(1, 314) = 76.42, p < .001. The coefficients for this model showed that *Price Attributes* was $\beta = .44$, t = 8.74, p < .001.

The second model evaluates the effect of the independent variable, *Price Attributes*, on the dependent variable, *Impulsive Buying Behaviour*. This model was already discussed and analyzed in previous section 4.4.3.

The third model incorporates the independent and mediator variables to predict the dependent variable. The results indicated that the model was significant ($R^2 = .15$), with an F(2, 313) = 27.26, p < .001. The coefficients for this model showed the *Price Attributes* was $\beta = .20$, t = 3.39, p < .001, and the *Utilitarian Value* was $\beta = .26$, t = .26, t = .

Figure 4.5: Summary of Direct and Indirect Causality of Hypothesis 8



When analyzed separately, the results indicate that $Price\ Attributes$ significantly predict both the $Utilitarian\ Value$ and the $Impulsive\ Buying\ Behaviour$. However, when both predictors ($Price\ Attributes$ and $Utilitarian\ Value$) are included in the model predicting the $Impulsive\ Buying\ Behaviour$, the effect of $Price\ Attributes$ is reduced but remains significant (p < .001), whereas the $Utilitarian\ Value$ also remains a significant predictor (p < .001). This suggests that the $Utilitarian\ Value$ partially mediates the relationship between $Price\ Attributes$ and $Impulsive\ Buying\ Behaviour$. The mediation effect is confirmed by the reduction in the significance of the $Price\ Attributes$ when the mediator is included. Given that the direct effect of $Price\ Attributes$ on impulsive $Buying\ Behaviour\ remains\ significant\ but$

reduced when the mediator is included, this indicates partial mediation. Thus, the *Price Attributes* influence impulsive *Buying Behaviour* both directly and indirectly through the *Utilitarian Value*, demonstrating a partial mediation effect. H8 was accepted.

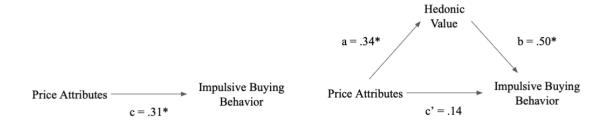
4.4.6 Mediating Effect of Hedonic Value on Price Attributes to Impulsive Buying Behavior

The first model examines the impact of the independent variable, *Price Attributes*, on the mediator, *Hedonic Value*. Results indicated that *Price Attributes* significantly predicted *Hedonic Value* ($R^2 = .12$), with an F(1, 314) = 41.48, p < .001. The coefficients for this model showed that the *Price Attributes* was $\beta = .34$, t(314) = 6.44, p < .001.

The second model evaluates the effect of the independent variable, *Price Attributes*, on the dependent variable, *Impulsive Buying Behaviour*. This model was already discussed and analyzed in previous section 4.3.3.

The third model incorporates the independent and mediator variables to predict the dependent variable. The results indicated that the model was significant ($R^2 = .32$), with an F (2, 313) = 73.04, p < .001. The coefficients for this model showed the *Price Attributes* was $\beta = .14$, t (313) = 2.79, p = .006, and the Hedonic Value was $\beta = .50$, t (313) = 10.10, p < .001. The summary of these results is shown in Figure 4.6 below.

Figure 4.6: Summary of Direct and Indirect Causality of Hypothesis 9



The results indicate that $Price\ Attributes$ significantly predict both the $Hedonic\ Value$ and the $Impulsive\ Buying\ Behaviour$ when analyzed separately. However, when both predictors ($Price\ Attributes$ and $Hedonic\ Value$) are included in the model predicting $Impulsive\ Buying$, the effect of $Price\ Attributes$ is reduced but remains significant (p=.006), whereas the $Hedonic\ Value$ also remains a significant predictor (p<.001). This suggests that the $Hedonic\ Value$ partially mediates the relationship between $Price\ Attributes$ and $Impulsive\ Buying$. The mediation effect is confirmed by the reduction in the significance of the Price

Attributes when the mediator is included. Given that the direct effect of *Price Attributes* on *Impulsive Buying* remains significant but reduced when the mediator is included, this indicates partial mediation. Thus, the *Price Attributes* directly and indirectly influence *Impulsive Buying* through the *Hedonic Value*, demonstrating a partial mediation effect. H9 was accepted.

4.5 Summary of Statistical Results

This section provides an overview of the statistical outcomes from the hypotheses tested in this study. Each hypothesis was evaluated using regression analysis to understand the direct and indirect effects of various factors on impulsive buying behavior. The results are systematically summarized in the Table 4.7 below.

Table 4.7: Summary of Hypothesis Result

Hypothesis	Hypothesis Result
H1: Variety of Selection has a negative influence on Impulsive Buying Behaviour	Rejected
H2: Attractiveness has a positive influence on Impulsive Buying Behaviour	Accepted
H3: Price Attributes have a positive influence on Impulsive Buying Behaviour	Accepted
H4: Utilitarian Value mediates the effect of Variety of Selection on Impulsive Buying Behaviour	Accepted (Full Mediation)
H5: Hedonic Value mediates the effect of Variety of Selection on Impulsive Buying Behaviour	Accepted (Full Mediation)
H6: Utilitarian Value mediates the effect of Attractiveness on Impulsive Buying Behaviour	Accepted (Partial Mediation)
H7: Hedonic Value mediates the effect of Attractiveness on Impulsive Buying Behaviour	Accepted (Partial Mediation)
H8: Utilitarian Value mediates the effect of Price Attributes on Impulsive Buying Behaviour	Accepted (Partial Mediation)
H9: Hedonic Value mediates the effect of Price Attributes on Impulsive Buying Behaviour	Accepted (Partial Mediation)

5. Conclusion and Discussion

5.1 Summary of the main findings contextualized in Indonesian's Tiktok

This study aimed to understand the factors influencing impulsive buying behavior in the context of TikTok live-stream shopping in Indonesia, focusing on factors such as the attractiveness, price attributes, and variety of selection in live-stream shopping. Utilizing the Stimulus-Organism-Response (SOR) framework, the research investigated how these stimuli impact consumers through utilitarian and hedonic values, ultimately affecting their impulsive purchase decisions. Through performing statistical analysis, this study confirmed that attractiveness and price attributes significantly increase impulsive buying behavior, while variety of selection impacts it indirectly through utilitarian and hedonic values. The key findings are discussed as follows.

5.1.1 Variety of Selection

Firstly, this study has revealed some surprising findings which the initial hypothesis that variety of selection would negatively influence impulsive buying behavior was based on studies suggesting that a wide range of options might lead consumers to make more deliberate, less impulsive choices. For instance, as discussed by Park et al. (2012, p. 45) indicated that an extensive variety could encourage a more thoughtful evaluation process, reducing impulsive purchases. However, in the context of TikTok live streaming, this study found that variety of selection does not deter impulsive buying.

When utilitarian and hedonic values were introduced as mediators, they fully explained the relationship between the variety of selection and impulsive buying behavior. This indicates that the practical benefits (utilitarian value) and the enjoyment (hedonic value) derived from a wide selection of products are the real drivers of impulsive buying. Utilitarian value refers to the convenience and functional benefits consumers perceive from having a broad range of options, such as finding exactly what they need or discovering a better deal. Hedonic value, on the other hand, pertains to the pleasure and excitement of exploring diverse products in a lively and entertaining setting.

Once these mediating effects are considered, the direct influence of variety of selection on impulsive buying is no longer significant, demonstrating full mediation. The availability of multiple options during live streams directly leads to more impulsive purchases due to the excitement and dynamic presentation of options available to consumers. It provides a sense of exploration and enjoyment, ultimately leading to impulsive purchases.

This finding is consistent with previous, highlighting the stimulating effect of a wide selection on impulsive buying by enhancing the shopping experience and providing a sense of exploration and enjoyment.

5.1.2 Attractiveness and Price Attributes

Attractiveness and price attributes also play crucial roles in influencing impulsive buying behavior in the context of TikTok live streaming. The study found that in Indonesian context, both attractiveness and price attributes positively influence impulsive buying behavior directly. Moreover, the study highlighted the partial mediation effects of utilitarian and hedonic values, which further explained these relationships.

The results of this study reveal distinct outcomes when analyzing the mediation paths of attractiveness and price attributes compared to the variety of selection. The findings demonstrated that attractiveness and price attributes significantly predict both utilitarian and hedonic values, as well as impulsive buying behavior, when analyzed separately. However, when these predictors were included in the model together, the effects of attractiveness and price attributes on impulsive buying behavior were reduced but remained significant, indicating partial mediation by utilitarian and hedonic values. This contrasts with the variety of selection, where the mediation effect showed full mediation by utilitarian and hedonic values, indicating that its direct influence on impulsive buying behavior becomes non-significant when the mediators are included.

In the context of TikTok live streaming, the visual appeal and user-friendly navigation of the app significantly enhance the practical benefits perceived by consumers. The ease with which users can discover, evaluate, and purchase products is facilitated by the platform's appealing design, making the shopping process more convenient, simplified, and enjoyable. Therefore, the ease of use translates into increased utilitarian value, as consumers perceive the platform as more useful and efficient (Davis, 1989, p. 334), thereby encouraging impulsive purchases (Chen & Yao, 2021, p. 1257). Meanwhile, the hedonic value comes from the pleasure and excitement of engaging with an appealing and easy-to-navigate interface. These combined benefits lead to increased impulsive purchases, as consumers are both practically and emotionally satisfied. The straightforward navigation and intuitive interface reduce the cognitive effort required to complete a purchase, thereby increasing the utilitarian value perceived by users (Davis, 1989, 323). This ease of use translates into increased

utilitarian value because users can quickly and efficiently achieve their shopping goals with minimal hassle, thus reinforcing the practical benefits of the platform.

Moreover, TikTok Livestreaming stands out as the only social commerce platform in Indonesia that combines social media and e-commerce within a single application. This integration allows users to experience an end-to-end purchase journey without needing to switch applications during transactions. Therefore, while the direct impact of attractiveness drives impulsive buying, the added convenience and enjoyment provided by the attractive and user-friendly interface also play crucial roles.

Strategic pricing tactics such as discounts, flash sales, and exclusive offers in TikTok Livestreaming not only enhance the perceived economic benefits but also create a sense of urgency and excitement. The utilitarian value is derived from the financial advantages perceived by consumers, such as getting a good deal or saving money, which directly encourages impulsive purchases. Consumers feel compelled to take advantage of these limited-time offers, perceiving them as smart financial decisions. Additionally, the hedonic value is amplified by the excitement and pleasure of finding bargains during live stream events, which adds an emotional layer to the shopping experience. The dynamic presentation of these offers by influencers creates a thrilling shopping atmosphere, enhancing both the perceived practical benefits and the emotional satisfaction. Consequently, while the direct impact of attractive pricing remains strong, the combined utilitarian and hedonic benefits associated with these price attributes further drive impulsive buying behavior.

5.2 Theoretical Implications

This study extends the application of the S-O-R theory, originally developed by Mehrabian and Russell (1974). This research extends the application of the S-O-R framework to the live streaming context, highlighting the significant roles of utilitarian and hedonic values in mediating the effects of external stimuli on impulsive buying behavior. By demonstrating how stimuli (variety of selection, attractiveness, and price attributes) affect internal states (utilitarian and hedonic values), which in turn influence impulsive buying behavior, this study confirms the relevance of the S-O-R framework in understanding consumer responses in dynamic and interactive online environments. The real-time and interactive nature of TikTok live streaming offers a unique setting for examining these processes, thereby enriching the theoretical foundations of consumer behavior research in digital contexts and more specifically, live streaming platform.

The dynamic and engaging nature of live streams can transform the decision-making process, making it more about the enjoyment and excitement of the experience rather than a purely rational evaluation of choices. These results can be attributed to the nature of live streaming, which often includes interactive elements such as real-time comments, influencer endorsements, and limited-time offers that create a sense of urgency and excitement. This environment fosters a heightened state of arousal and engagement, leading consumers to make quicker, more impulsive decisions driven by emotional gratification.

The study underscores the critical role of attractiveness in influencing consumer behavior. In this study, the attractiveness of the TikTok platform, characterized by user-friendly navigation and visually appealing layouts, significantly enhances both utilitarian and hedonic values. It aligns with Zhang et al. (2022, p. 4) that visual attractiveness has a positive influence on utilitarian and hedonic. This dual enhancement leads to increased impulsive buying behavior, indicating that an attractive interface can make the shopping process more enjoyable and efficient. This finding supports and extends the work of previous studies that emphasized the importance of visual appeal in online shopping environments (Chan et al., 2017, p. 9). In line with Wells et al. (2011, p. 37), who claimed that a well-designed interface increases the likelihood of impulsive purchases, our study confirms that attractiveness not only draws consumers in but also makes their shopping experience smoother and more pleasurable, thereby increasing the likelihood of impulsive purchases. The integration of social media and e-commerce in TikTok's live streaming also plays a pivotal role in this dynamic, offering an uninterrupted and engaging shopping journey.

This study shows an understanding of how price attributes affect consumer behavior, emphasizing the need to consider both practical and emotional benefits in pricing strategies. The utilitarian value, derived from the financial advantages perceived by consumers, such as getting a good deal or saving money, directly encourages impulsive purchases. Meanwhile, the hedonic value, derived by the excitement and pleasure of finding bargains during TikTok livestreaming, adds an emotional layer to the shopping experience. These results support the findings of Kimiagari and Malafe (2021, p. 12), which stated price attributes directly predict impulsive buying behavior, with this effect being mediated through both utilitarian and hedonic value. This may be due to impulsive buyers often make unplanned purchases without a predetermined budget for the desired item, making price a crucial factor in their decision-making process.

5.3 Managerial and Practical Implications

Contrary to previous research (Park et al., 2012, p. 1587), a wide variety of selection on live streaming platforms like TikTok can enhance impulsive buying behavior. Marketers should ensure a diverse range of products is available during live streams to capture the interest of a broader audience. However, it is also essential to present these options in an organized and engaging manner to prevent decision paralysis. Utilizing categories, filters, and personalized recommendations can help manage the variety and guide consumers towards making impulsive purchases. This approach can enhance consumer engagement and satisfaction, ultimately boosting sales.

Furthermore, this study shows the critical role of attractiveness in influencing consumer behavior. Managers and platform developers should focus on creating attractive visually appealing and user-friendly interfaces. This includes investing in high-quality graphics, intuitive navigation, and engaging layouts. An attractive platform not only draws in consumers but also enhances their shopping experience, making it more enjoyable and efficient. This, in turn, can lead to increased impulsive purchases.

In terms of price attributes significantly impact impulsive buying behavior, mediated by both utilitarian and hedonic values. Managers should implement strategic pricing tactics such as discounts, flash sales, and exclusive offers during live streams to create a sense of urgency and excitement. Highlighting the economic benefits and limited-time nature of these offers can trigger impulsive purchases. Clearly displaying price comparisons and savings can enhance the perceived value of the products being sold. Managers should ensure that consumers are aware of the discounts they are receiving by highlighting the original price alongside the discounted price during the live stream. This strategy not only emphasizes the economic benefits but also enhances the excitement and pleasure associated with finding a good deal, thereby increasing the likelihood of impulsive purchases. Additionally, clearly displaying price comparisons and savings can enhance perceived value and drive sales.

However, the potential for impulsive buying raises concerns about overconsumption and financial implications for consumers, highlighting the need for responsible marketing practices and consumer education. This research contributes to consumer education by highlighting the factors that trigger impulsive purchases during live streams, helping consumers become more aware of their shopping behaviors in these interactive environments. By understanding the triggers of impulsive buying, businesses can design live streaming features that balance consumer enjoyment with informed purchasing decisions, potentially

reducing regretful impulsive buys. This approach fosters a healthier consumer marketplace and supports sustainable business practices.

5.4 Limitations and Future Research

The study's sample is limited to TikTok live-stream shopping users in Indonesia who have watched TikTok live stream shopping. This may limit the generalizability of the findings to other product categories or geographical regions. Future research should consider a more diverse sample to enhance the generalizability of the results.

The study employs a cross-sectional design, capturing data at a single point in time. This approach does not account for potential changes in consumer behavior over time. Longitudinal studies are needed to examine how impulsive buying behavior evolves with ongoing exposure to live-stream shopping and to identify potential long-term effects. Additionally, the use of self-reported data through questionnaires may introduce response biases, such as social desirability bias or recall bias. Future studies could incorporate objective measures, such as actual purchase data from TikTok Shop, to validate self-reported behaviors and enhance data accuracy.

Moreover, the study examines variety of selection, attractiveness, and price attributes as stimuli influencing impulsive buying behavior. However, other potential factors, such as social influence, live-stream host characteristics, and consumer personality traits, were not included. Future research should explore these additional factors to gain a holistic view of the determinants of impulsive buying in live-stream shopping contexts.

Building on the findings and addressing the limitations, several avenues for future research are proposed. Future studies should investigate impulsive buying behavior across a wider range of product categories and in different cultural and geographical contexts. This will help to understand how cultural differences and product types influence consumer responses to live-stream shopping.

Comparative studies across different live-stream shopping platforms would create insights into the the unique features and strategies that drive impulsive buying behavior on each platform. Understanding these differences can guide platform-specific marketing strategies and feature development. Future research should expand the scope of potential moderators, such as consumer mood or situational factors during the live stream, could provide deeper insights into the conditions under which impulsive buying is most likely to occur.

Investigating the long-term impact of impulsive buying behavior on consumer well-being, including financial health and emotional satisfaction, is essential. Understanding these effects can inform responsible marketing practices and support the development of consumer protection guidelines. As live-stream shopping technology evolves, future research should explore how emerging technologies (e.g., augmented reality, artificial intelligence) influence consumer behavior. These innovations may introduce new dynamics in the live-stream shopping experience, affecting impulsive buying tendencies.

References

- Bak, S., Jeong, Y., Yeu, M., & Jeong, J. (2022). Brain–computer interface to predict impulse buying behavior using functional near-infrared spectroscopy. *Scientific Reports*, 12(1), 18024. https://doi.org/10.1038/s41598-022-22653-8
- Biino, M. (2023). A TikTok Shop exec breaks down the company's vision for the product and how it's wooing brands and creators. *Business Insider*.

 https://www.businessinsider.com/tiktok-ecommerce-shop-feature-future-vision-livestream-shopping-2023-5?international=true&r=US&IR=T
- Chan, T. K. H., Cheung, C. M. K., & Lee, Z. W. Y. (2017). The state of online impulse-buying research: A literature analysis. *Information & Management*, *54*(2), 204–217. https://doi.org/10.1016/j.im.2016.06.001
- 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(5), 1249–1262. https://doi.org/10.1016/j.tele.2018.02.007
- Creswell, J. W. (1994). Research design: Qualitative and quantitative approaches. SAGE Publications, Incorporated.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, *13*(3), 319. https://doi.org/10.2307/249008
- Dawson, S., & Kim, M. (2010). Cues on apparel web sites that trigger impulse purchases.

 *Journal of Fashion Marketing and Management: An International Journal, 14(2),

 230–246. https://doi.org/10.1108/13612021011046084
- Dholakia, U. M. (2000). Temptation and resistance: An integrated model of consumption impulse formation and enactment. *Psychology and Marketing*, *17*(11), 955–982. https://doi.org/10.1002/1520-6793(200011)17:11<955::AID-MAR3>3.0.CO;2-J

- Diehl, K., & Poynor, C. (2010). Great expectations?! Assortment size, expectations, and satisfaction. *Journal of Marketing Research*, 47(2), 312–322. https://doi.org/10.1509/jmkr.47.2.312
- Momentum Works. (2023). Ecommerce in Southeast Asia 2023. *Momentum Works*. https://momentum.asia/product/ecommerce-in-southeast-asia-2023/
- Evangelin, M. R., Sulthana, A. N., & Vasantha, S. (2021). The effect of hedonic motivation towards online impulsive buying with the moderating effect of age. *Quality Access to Success*, 22(184). https://doi.org/10.47750/QAS/22.184.31
- Fataron, Z. A. (2019). Online impulse buying behaviour: Case study on users of Tokopedia.

 Journal of Digital Marketing and Halal Industry, 1(1), 47–60.

 https://doi.org/10.21580/jdmhi.2019.1.1.4762
- Feng, Z., Al Mamun, A., Masukujjaman, M., Wu, M., & Yang, Q. (2024). Impulse buying behavior during livestreaming: Moderating effects of scarcity persuasion and price perception. *Heliyon*, 10(7), e28347. https://doi.org/10.1016/j.heliyon.2024.e28347
- Fiore, A. M., & Kim, J. (2007). An integrative framework capturing experiential and utilitarian shopping experience. *International Journal of Retail & Distribution Management*, 35(6), 421–442. https://doi.org/10.1108/09590550710750313
- Floh, A., & Madlberger, M. (2013). The role of atmospheric cues in online impulse-buying behavior. *Electronic Commerce Research and Applications*, *12*(6), 425–439. https://doi.org/10.1016/j.elerap.2013.06.001
- Gao, Y., Ahmad, A., & Azman, N. (2023). Impact of external and internal stimuli on online impulsive buying behavior: Mediating role of hedonic and utilitarian shopping value.
 International Journal of Professional Business Review, 8(9), e03459.
 https://doi.org/10.26668/businessreview/2023.v8i9.3459

- Ha, N. M., & Lam, N. H. (2016). The effects of celebrity endorsement on customer's attitude toward brand and purchase intention. *International Journal of Economics and Finance*, 9(1), 64. https://doi.org/10.5539/ijef.v9n1p64
- Huang, Y., & Suo, L. (2021). Factors affecting chinese consumers' impulse buying decision of live streaming e-commerce. *Asian Social Science*, *17*(5), 16. https://doi.org/10.5539/ass.v17n5p16
- Huo, C., Wang, X., Sadiq, M. W., & Pang, M. (2023). Exploring factors affecting consumer's impulse buying behavior in live-streaming shopping: An interactive research based upon SOR model. SAGE Open, 13(2), 215824402311726.
 https://doi.org/10.1177/21582440231172678
- Dzulfarohswi (2023). Indonesia pengguna TikTok terbesar kedua di dunia, mengapa aplikasi ini begitu digemari? *KOMPAS.Com*.

 https://www.kompas.com/tren/read/2023/01/19/200000065/indonesia-penggunatiktok-terbesar-kedua-di-dunia-mengapa-aplikasi-ini
- Ipsos. (2022, March 15). Livestream Selling in Indonesia Market is Growing. *Ipsos*. https://www.ipsos.com/en-id/livestream-selling-indonesia-market-growing
- Iyengar, S. S., & Lepper, M. R. (2006). When choice is demotivating: Can one desire too much of a good thing? In S. Lichtenstein & P. Slovic (Eds.), *The Construction of Preference* (1st ed., pp. 300–322). Cambridge University Press. https://doi.org/10.1017/CBO9780511618031.017
- Iyer, G. R., Blut, M., Xiao, S. H., & Grewal, D. (2020). Impulse buying: A meta-analytic review. *Journal of the Academy of Marketing Science*, 48(3), 384–404. https://doi.org/10.1007/s11747-019-00670-w

- Jeffrey, S. A., & Hodge, R. (2007). Factors influencing impulse buying during an online purchase. *Electronic Commerce Research*, 7(3–4), 367–379. https://doi.org/10.1007/s10660-007-9011-8
- Jones, M. A., Reynolds, K. E., Weun, S., & Beatty, S. E. (2003). The product-specific nature of impulse buying tendency. *Journal of Business Research*, *56*(7), 505–511. https://doi.org/10.1016/S0148-2963(01)00250-8
- Joseph, H., & Balqiah, T. (2022). Impulsive buying behavior analysis of e-commerce application: A perspective of the stimulus-organism-response model. *Proceedings of the 4th International Conference on Economics, Business and Economic Education Science, ICE-BEES 2021, 27-28 July 2021, Semarang, Indonesia.*https://doi.org/10.4108/eai.27-7-2021.2316878
- Keenan, M. (2023). Global ecommerce statistics: Trends to guide your store in 2024. *Shopify*. https://www.shopify.com/enterprise/blog/global-ecommerce-statistics
- Kim, M. J., Lee, C.-K., & Jung, T. (2020). Exploring consumer behavior in virtual reality tourism using an extended stimulus-organism-response model. *Journal of Travel Research*, *59*(1), 69–89. https://doi.org/10.1177/0047287518818915
- Kim, S., & Eastin, M. S. (2011). Hedonic tendencies and the online consumer: An investigation of the online shopping process. *Journal of Internet Commerce*, 10(1), 68–90. https://doi.org/10.1080/15332861.2011.558458
- Kimiagari, S., & Asadi Malafe, N. S. (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. https://doi.org/10.1016/j.jretconser.2021.102567

- LaRose, R. (2006). On the negative effects of e-commerce: A sociocognitive exploration of unregulated online buying. *Journal of Computer-Mediated Communication*, 6(3), 0–0. https://doi.org/10.1111/j.1083-6101.2001.tb00120.x
- Lavuri, R. (2021). Intrinsic factors affecting online impulsive shopping during the COVID-19 in emerging markets. *International Journal of Emerging Markets*, *18*(4), 958–977. https://doi.org/10.1108/ijoem-12-2020-1530
- Lee, C.-H., & Chen, C.-W. (2021). Impulse buying behaviors in live streaming commerce based on the stimulus-organism-response framework. *Information*, *12*(6), 241. https://doi.org/10.3390/info12060241
- Lee, Y. Y., Gan, C. L., & Liew, T. W. (2022). The impacts of mobile wallet app characteristics on online impulse buying: A moderated mediation model. *Human Behavior and Emerging Technologies*, 2022, 1–15.

 https://doi.org/10.1155/2022/2767735
- Lichtenstein, D. R., Ridgway, N. M., & Netemeyer, R. G. (1993). Price perceptions and consumer shopping behavior: A field study. *Journal of Marketing Research*, 30(2), 234. https://doi.org/10.2307/3172830
- Liu, C., & Arnett, K. P. (2000). Exploring the factors associated with web site success in the context of electronic commerce. *Information & Management*, *38*(1), 23–33. https://doi.org/10.1016/s0378-7206(00)00049-5
- Liu, Y., Li, H., & Hu, F. (2013). Website attributes in urging online impulse purchase: An empirical investigation on consumer perceptions. *Decision Support Systems*, *55*(3), 829–837. https://doi.org/10.1016/j.dss.2013.04.001
- Malhotra, N. K. (2010). Marketing research: An applied orientation. Pearson.
- Mallari, E. F. I., Ato, C. K. A., Crucero, L. J. M. O., Escueta, J. T., Eslabra, V. A. P., & Urbano, P. E. M. (2023). The mediating role of impulse buying on hedonic shopping

- motivation and life satisfaction of online shoppers in the Philippines. *International Social Science Journal*, 73(249), 861–872. https://doi.org/10.1111/issj.12430
- Mehrabian, A., & Russell, J. A. (1974). *An approach to environmental psychology*. MIT Press (MA).
- Moe, W. W. (2003). Buying, searching, or browsing: Differentiating between online shoppers using in-store navigational clickstream. *Journal of Consumer Psychology*, *13*(1–2), 29–39. https://doi.org/10.1207/S15327663JCP13-1&2 03
- Ozen, H., & Engizek, N. (2014). Shopping online without thinking: Being emotional or rational? *Asia Pacific Journal of Marketing and Logistics*, 26(1), 78–93. https://doi.org/10.1108/APJML-06-2013-0066
- Parboteeah, D. V., Valacich, J. S., & Wells, J. D. (2009). The influence of website characteristics on a consumer's urge to buy impulsively. *Information Systems**Research*, 20(1), 60–78. JSTOR. https://doi.org/10.2307/23015461
- Park, E. J., & Forney, J. C. (2011). Assessing and predicting apparel impulse buying. *Journal of Global Fashion Marketing*, *2*(1), 28–35. https://doi.org/10.1080/20932685.2011.10593080
- 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
- Parsad, C., Prashar, S., & Vijay, T. S. (2019). Comparing between product-specific and general impulse buying tendency: Does shoppers' personality influence their impulse buying tendency? *Asian Academy of Management Journal*, 24(2), 41–61. https://doi.org/10.21315/aamj2019.24.2.3

- Peck, J., & Childers, T. L. (2006). If I touch it I have to have it: Individual and environmental influences on impulse purchasing. *Journal of Business Research*, *59*(6), 765–769. https://doi.org/10.1016/j.jbusres.2006.01.014
- Peng, C., & Kim, Y. G. (2014). Application of the stimuli-organism-response (S-O-R) framework to online shopping behavior. *Journal of Internet Commerce*, *13*(3–4), 159–176. https://doi.org/10.1080/15332861.2014.944437
- Peng, L., Cui, G., Chung, Y., & Zheng, W. (2020). The faces of success: Beauty and ugliness premiums in e-commerce platforms. *Journal of Marketing*, 84(4), 67–85. https://doi.org/10.1177/0022242920914861
- Setyowati, D. (2023, November 17). Pesanan di TikTok Shop disebut hampir 3 juta per hari sebelum tutup. *Katadata.Co.Id*.

 https://katadata.co.id/desysetyowati/digital/6556edeed45e2/pesanan-di-tiktok-shop-disebut-hampir-3-juta-per-hari-sebelum-tutup
- Qing, C., & Jin, S. (2022). What drives consumer purchasing intention in live streaming e-commerce? *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.938726
- McKinsey (2023, July 7). Ready for prime time? The state of live commerce. *McKinsey & Company*. https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/ready-for-prime-time-the-state-of-live-commerce
- Roehm, H. A., & Roehm, M. L. (2005). Revisiting the effect of positive mood on variety seeking. *Journal of Consumer Research*, 32(2), 330–336. https://doi.org/10.1086/432242
- Rook, D. W. (1987). The buying impulse. *Journal of Consumer Research*, *14*(2), 189–199. JSTOR. https://doi.org/10.2307/2489410

- Seo, S., & Lee, Y. (2008). Shopping values of clothing retailers perceived by consumers of different social classes. *Journal of Retailing and Consumer Services*, *15*(6), 491–499. https://doi.org/10.1016/j.jretconser.2008.02.001
- Setyowati, D. (2023). Riset: Jumlah pelanggan TikTok lampaui JD.ID dan Blibli. *Katadata.Co.Id.* https://katadata.co.id/digital/e-commerce/64226d7bb0541/riset-jumlah-pelanggan-tiktok-lampaui-jdid-dan-blibli
- Song, Z., Liu, C., & Shi, R. (2022). How do fresh live broadcast impact consumers' purchase intention? Based on the SOR theory. *Sustainability*, 14(21), 14382.
 https://doi.org/10.3390/su142114382
- Tiktok. (2019, August 16). Introducing the what's next: Shopping trend report. *TikTok*. https://newsroom.tiktok.com/en-ca/introducing-the-whats-next-shopping-trend-report-ca
- Tiktok for Business (2023). TikTok for Business year in review: APAC 2023 wrapped! *TikTok For Business*. https://www.tiktok.com/business/en-SG/blog/tiktok-for-business-year-in-review-apac-2023-wrapped?redirected=1
- Stone, M. (2023, September 13). TikTok's new app store signals its e-commerce ambitions to compete with established players like Amazon and Shopify. *Insider*. https://www.businessinsider.com/tiktok-shop-app-store-more-e-commerce-software-partners-2023-9?international=true&r=US&IR=T
- Trivedi, J., Kasilingam, D., Arora, P., & Soni, S. (2022). The effect of augmented reality in mobile applications on consumers' online impulse purchase intention: The mediating role of perceived value. *Journal of Consumer Behaviour*, 21(4), 896–908. https://doi.org/10.1002/cb.2047

- 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(8), 320–327. https://doi.org/10.1016/j.im.2011.08.001
- 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(8), 320–327. https://doi.org/10.1016/j.im.2011.08.001
- Vieira, V. A. (2013). Stimuli–organism-response framework: A meta-analytic review in the store environment. *Journal of Business Research*, 66(9), 1420–1426. https://doi.org/10.1016/j.jbusres.2012.05.009
- Wangsaputra, N. (2023, April 13). TikTok vs Shopee: How does each platform interact with Indonesians through live shopping? *Campaign Asia*.

 https://www.campaignasia.com/article/tiktok-vs-shopee-how-does-each-platform-interact-with-indonesians-through-live-s/483998
- Wells, J., Parboteeah, V., & Valacich, J. (2011). Online impulse buying: Understanding the interplay between consumer impulsiveness and website quality. *Journal of the Association for Information Systems*, 12(1), 32–56.
 https://doi.org/10.17705/1jais.00254
- TikTok (2019). What's next report 2022: Insight into culture drivers on TikTok. *Newsroom* | *TikTok*. https://newsroom.tiktok.com/en-us/tiktok-whats-next-report-2022
- Williams, P. J., Khan, M. S., Semaan, R., Naumann, E. R., & Ashill, N. J. (2017). Drivers of contract renewal in international B2B services: A firm-level analysis. *Marketing Intelligence & Planning*, 35(3), 358–376. https://doi.org/10.1108/MIP-05-2016-0079

- Wongkitrungrueng, A., & Assarut, N. (2020). The role of live streaming in building consumer trust and engagement with social commerce sellers. *Journal of Business Research*, 117, 543–556. https://doi.org/10.1016/j.jbusres.2018.08.032
- Wu, I.-L., Chen, K.-W., & Chiu, M.-L. (2016). Defining key drivers of online impulse purchasing: A perspective of both impulse shoppers and system users. *International Journal of Information Management*, 36(3), 284–296.
 https://doi.org/10.1016/j.ijinfomgt.2015.11.015
- Xu, X., Wu, J., & Li, Q. (2020). What drives consumer shopping behavior in live streaming commerce. *Journal of Electronic Commerce Research*, 21, 144.
- 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. https://doi.org/10.1016/j.jretconser.2021.102683
- Zhang, K. Z. K., 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
- Zhao, Y., Li, Y., Wang, N., Zhou, R., & Luo, X. (2022). A meta-analysis of online impulsive buying and the moderating effect of economic development level. *Information Systems Frontiers*, 24(5), 1667–1688. https://doi.org/10.1007/s10796-021-10170-4
- Zheng, X., Men, J., Yang, F., & Gong, X. (2019). Understanding impulse buying in mobile commerce: An investigation into hedonic and utilitarian browsing. *International Journal of Information Management*, 48, 151–160.
 https://doi.org/10.1016/j.ijinfomgt.2019.02.010

Appendix

V2. TikTok Livestreaming (Eng Version)

Start of Block: Block 1

Open Dear participant,

Thank you for your interest in participating in this research study. To participate in this survey, you need to be 18 years or older and have previously purchased product through TikTok Live Streaming.

My name is Sufya Nabila and I am currently writing my thesis for my Master's Media and Business at the Erasmus University Rotterdam. The purpose of this study is to gain insight in your purchasing behavior on TikTok Livestreaming platform. Filling out this survey will roughly take 10-15 minutes.

The information gathered will remain confidential and entirely anonymous. Therefore, the data will not be shared with third parties and solely used for this thesis study. Your participation is completely voluntary, there are no right or wrong answers. Please take your time to honestly answer each question.

If you have any questions regarding this study, please feel free to email 702157sn@eur.nl. By selecting "I agree" below, you acknowledge that you have read this introduction, understand the study's purpose, and consent to participate.

O I <u>agree (</u> 1)	
O I <u>disagree (</u> 2)	
End of Block: Block 1	
Start of Block: Filter Questions 18 years old	

Q1 How old are you?
▼ < 18 years old (1) > 80 years old (65)
End of Block: Filter Questions 18 years old
Start of Block: Filter Question Purchased
Q2 Have you purchased a product from TikTok Live Streaming?
O <u>Yes (</u> 1)
O <u>No. (</u> 2)
End of Block: Filter Question Purchased
Start of Block: Filter Question Indonesia
Q5 Do you currently live in Indonesia?
O <u>Yes (</u> 1)
O <u>No. (</u> 2)
End of Block: Filter Question Indonesia

Start of Block: Main Questions

Variety of Selection In the following pages I will ask your opinion and purchase behaviour in TikTok Live Streaming. Please follow the prompts below to choose the option that is consistent with your idea on the right side of each question.

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
Tiktok Live Streaming sells various types of goods (1)	0	0	0	0	0	0
Tiktok Live Streaming has a variety of products at different prices. (2)	0	0	0	0	0	0
Tiktok Live Streaming sells goods product various brands. (3)	0	0	0	0	0	0
Tiktok Live Streaming sells the latest products. (4)	0	0	0	0	0	0

Page Break

Price Attributes The following is a question about your opinion on product price in TikTok Live Streaming compare to other online live-streaming shopping platforms.

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
Tiktok Live Streaming carries products with reasonable prices. (1)	0	0	0	0	0	0
Discounted prices are very cheap in TikTok Livestreaming (2)	0	0	0	0	0	0
The price of products in Tiktok. Livestreaming platform is economical. (3)	0	0	0	0	0	0

Page Break -

Attractiveness The following is a question about your opinion on Tik Tok Live Streaming's platform attractiveness.

piatroini attracti	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
Navigating in Tiktok Livestreaming for product purchased is easy for me. (1)	0	0	0	0	0	0
Tiktok Livestreaming provides concise and clear navigation menus / icons to purchase my product. (2)	0	0	0	0	0	0
Tiktok Livestreaming are visually pleasing. (3)	0	0	0	0	0	0
The layout of Tiktok Livestreaming is attractive. (4)	0	0	0	0	0	0
Page Break						

Utilitarian Value The following is a question is to assess your Utilitarian Value on TikTok Live Streaming.

Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
	Disagree	Disagree (2)	Disagree Disagree	Disagree Disagree Somewhat Agree (4)	Disagree Disagree Disagree Somewhat Agree (5)

Hedonic Value The following is a question is to assess your Hedonic Value on TikTok Live Streaming.

z nomang.	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
When watching Tiktok Live Streaming I can forget about my problems and feel relaxed. (1)	0	0	0	0	0	0
While watching Tiktok Live Streaming I feel very excited. (2)	0	0	0	0	0	0
I gain enough pleasure from Tiktok Livestreaming to get a time out. (3)	0	0	0	0	0	0
I browse items on Tiktok Live Streaming just for fun.	0	0	0	0	0	0

Impulsive Buying The following is a question is to assess your Impulse Buying on TikTok Live Streaming.

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
I buy items on a whim on TikTok Livestreaming. (1)	0	0	0	0	0	0
During Tiktok Livestreaming, I buy products without a lot of thinking. (2)	0	0	0	0	0	0
I tend to buy things I have no desire to buy during Tiktok Livestreaming.	0	0	0	0	0	0
When I find something I like on TikTok Live Streaming, I purchase it immediately. (4)	0	0	0	0	0	0

Page Break

Gender What is your gender?
O <u>Male (1)</u>
Eemale (2)
Prefer not to say (3)
Live In which province do you currently live?
▼ Aceh (1) Southwest Papua (38)
Education Your highest education background is
O Junior High School (1)
Senior High School (2)
O Bachelor's degree (3)
O Master's <u>degree (</u> 4)
O PhD (5)
Others (6)
Purchase How much is your average amount of expenditure per purchase in Tiktok Livestreaming?
O < 100 000 (1)
O 100.000 - 200.000 (2)
O 200.000 - <u>300.000 (</u> 3)
O > 300 000 (4)

V1. TikTok Livestreaming (Bahasa Version)

Start of Block: Block 1

Open Terima kasih atas minat Anda untuk berpartisipasi dalam penelitian ini. Untuk berpartisipasi dalam survei ini, Anda harus berusia 18 tahun atau lebih dan pernah membeli produk melalui TikTok Live Streaming.

Nama saya Sufya Nabila dan saat ini saya sedang menulis tesis untuk S2 Media dan Bisnis di Erasmus University Rotterdam. Tujuan dari penelitian ini adalah untuk menilai perilaku pembelian di platform TikTok Livestreaming. Mengisi survei ini akan memakan waktu sekitar 10-15 menit.

Informasi yang dikumpulkan akan rahasia dan sepenuhnya anonim. Oleh karena itu, data tidak akan dibagikan kepada pihak ketiga dan hanya digunakan untuk studi tesis ini. Partisipasi Anda sepenuhnya sukarela, tidak ada jawaban yang benar atau salah. Silahkan luangkan waktu Anda untuk menjawab setiap pertanyaan dengan jujur.

Jika Anda memiliki pertanyaan mengenai penelitian ini, jangan ragu untuk mengirim email | ke 702157sn@eur.nl. Dengan memilih "Saya setuju" di bawah ini, Anda telah membaca pengantar ini, memahami tujuan studi, dan setuju untuk berpartisipasi.

O Saya setuju_(1)	
O Saya tidak setuju_(2)	
End of Block: Block 1	
Start of Block: Filter Questions 18 years old	
Page Break	

Age Filter Berapakah umur Anda?

di bawah 18 tahun (1) > 80 years old (65)	
d of Block: Filter Questions 18 years old	
art of Block: Filter Question Purchased	
rchase Filter Apakah Anda pernah membeli produk dari TikTok Live Streaming?	
○ ¥a_(1)	
O Tidak_(3)	
d of Block: Filter Question Purchased	
art of Block: Filter Question Indonesia	
donesia Filter Apakah Anda saat ini tinggal di Indonesia?	
○ <u>Ya_(</u> 1)	
O Tidak_(2)	
d of Block: Filter Question Indonesia	

Start of Block: Main Questions

Variety of Selection Di halaman berikut saya akan menanyakan pendapat dan perilaku pembelian Anda di TikTok Shop Live Streaming. Silakan ikuti petunjuk di bawah ini untuk memilih opsi yang sesuai.

	Sangat Tidak Setuju (1)	Tidak Setuju (2)	Agak Tidak Setuju (3)	Agak Setuju (4)	Setuiu (5)	Sangat Setuju (8)
TikTok Live Streaming meniual berbagai jenis barang (1)	0	0	0	0	0	0
TikTok Live Streaming memiliki boragam produk dengan barga yang bervariasi (2)	0	0	0	0	0	0
TikTok Live Streaming menxediakan berbagai merek (3)	0	0	0	0	0	0
TikTok Live Streaming meniual produk terharu (4)	0	0	0	0	0	0

Page Break

Price Attributes Berikut pertanyaan mengenai pendapat Anda mengenai harga produk di TikTok Live Streaming dibandingkan dengan platformlive streaming lainnya.

	Sangat Tidak Setuju (1)	Tidak Setuju (2)	Agak Tidak Setuju (3)	Agak Setviv (4)	Setuiu (5)	Sangat Setuju (6)
Produk di TikTok Livestreaming dijual dengan harga yang terjangkau (1)	0	0	0	0	0	0
Harga diskon di TikTok Livestreaming lehih terjangkau (2)	0	0	0	0	0	0
Harga produk di TikTok Livestreaming lebib ekonomis, (3)	0	0	0	0	0	0

Page Break

Attractiveness Berikut pertanyaan mengenai pendapat Anda terhadap daya tarik platform TikTok Live Streaming.

	Sangat Tidak Setuju (1)	Tidak Setuju (2)	Agak Tidak Setuiu (3)	Agak Setuiu (4)	Setujų (5)	Sangat Setuiu (6)
Navigasi di TikTok Livestreaming mudab dalam membeli produk (1)	0	0	0	0	0	0
TikTok Livestreaming menyediakan menu/ikon navigasi yang ielas untuk membeli produk saya (2)	0	0	0	0	0	0
Platform Tiktok Livestreaming menarik secara visual. (3)	0	0	0	0	0	0
Online layout/tata letak TikTok Livestreaming menarik (4)	0	0	0	0	0	0

Page Break -

Utilitarian Value Berikut ini adalah pertanyaan untuk menilai Nilai Utilitarian Anda di TikTok Live Streaming.

	Sangat Tidak Setuju (1)	Tidak Setuju (2)	Agak Tidak Setuju (3)	Agak Setuju (4)	Setuju (5)	Sangat Setuiu (6)
Saya menonton TikTok Live Streaming untuk membeli produk yang memiliki barga atau kualitas yang lebih baik (1)	0	0	0	0	0	0
Saya menonton TikTok Live Streaming untuk mengumpulkan informasi produk yang ingin saya beli (2)	0	0	0	0	0	0
Saya menonton TikTok Live Streaming untuk membandingkan produk (3)	0	0	0	0	0	0
Saya menonton TikTok Live Streaming untuk mendapatkan nilai tambah sebanyak- banyaknya (4)	0	0	0	0	0	0
Saya menonton Tiktok Live Streaming untuk belanja online yang efisien (5)	0	0	0	0	0	0
Page Break						

Hedonic Value Berikut pertanyaan untuk menilai Nilai Hedonis Anda di Live Streaming TikTok.

	Sangat Tidak Setuju (1)	Tidak. Setuju (2)	Agak Tidak Setuju (3)	Agak Setuiu (4)	Setuiu (5)	Sangat Setuju (6)
Saat metorton TikTok Live Streaming sava bisa melunakan masalah sava dan metasa santai (1)	0	0	0	0	0	0
Saat menorton TikTok Live Streaming saya merasa senang (2)	0	0	0	0	0	0
Saya cukun menikmati menonton TikTok Livestreaming ketika sedang beristirahat (3)	0	0	0	0	0	0
Saya menelusuri produk di TikTok Live Streaming banya untuk bersenang- senang. (4)	0	0	0	0	0	0

Page Break —

Impulsive Buying Berikut ini adalah pertanyaan untuk menilai Pembelian Impuls Anda di TikTok Livestreaming

	Sangat Tidak Setuju (1)	Tidak Setuin (2)	Agak Tidak Setuin (3)	Agak Setuiu (4)	Setuin (5)	Sangat Setuju (6)
Saya pernah membeli barang secara spontan di TikTok Livestreaming. (1)	0	0	0	0	0	0
Saat menonton TikTok Livestreaming, saxa pernah membeli produktanna banyak berpikir (2)	0	0	0	0	0	0
Saya pernah membeli produk yang sebetulnya tidak saya butuhkan di TikTok Livestreaming.	0	0	0	0	0	0
Ketika saya menemukan sesuatu yang saya sukai di TikTok Livestreaming, saya pernah langsung membelinya (5)	0	0	0	0	0	0
Page Break —						
End of Block: Ma	in Question:	S				

Start of Block: Demographics

Gender Jenis kelamin Anda
O Pria_(1)
O Perempuan (2)
O Memilih untuk tidak mengatakan (3)
Place of Living Di provinsi manakah Anda tinggal?
▼ Aceh (1) Southwest Papua (38)
Education Latar belakang pendidikan tertinggi anda adalah
O <u>SMP (</u> 1)
O <u>SMA (</u> 2)
O S1/D4/Setara_{3})
O s2_(7)
O s <u>3_(</u> 5)
O Lainnva (6)
Purchase Berapa jumlah rata-rata pengeluaran Anda per pembelian di TikTok Livestreaming?
O < 100 000 (1)
O 100.000 - <u>200.000 (</u> 2)
O 200.000 - <u>300.000 (</u> 3)
O > 300 000 (4)