

TRIGGERS OF MALAYSIAN CONSUMERS' IMPULSE
PURCHASE DURING LIVE STREAMING

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BY

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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
B/ β	Beta
<i>df</i>	Degree of Freedom
DV	Dependent variable
F	F ratio
GMV	Gross Merchandise Value
H1	Hypothesis 1
H2	Hypothesis 2
H3	Hypothesis 3
H4	Hypothesis 4
H5	Hypothesis 5
H6	Hypothesis 6
IN	Interactivity
IP	Impulse Purchase
IV	Independent variable
N	Sample Population
p	P-value
PD	Price Discount
PE	Perceived Enjoyment
R^2	R-squared
Adj R^2	Adjusted R-squared
SE	Standard Error

Sig.	Significance
SOR	Stimulus Organism Response
SPSS	Statistical Package for Social Sciences
VA	Visual Appeal

PREFACE

One of the trendiest retail channels since the epidemic is seemed to be live streaming ecommerce. Studies from the past have shown that consumers are increasingly accepting to shop online. In Malaysia, live streaming shopping is growing in popularity in recent years. For local marketers and e-commerce businesses succeed in this market, it is crucial to analyze consumer behavior in live streaming commerce. Unfortunately, research related to live streaming shopping in Malaysia is insufficient and limited. As a result, it was suggested to carry out a research study on Malaysian customers' impulsive purchasing choices made when shopping live online.

ABSTRACT

With the rapid growth of the e-commerce market in Malaysia and the recent popularity of live streaming sales. Correspondingly, the situation of consumers purchasing merchandise through live streaming is also increasing. Therefore, this paper aimed to identify the factors that affect Malaysian consumers to make impulse purchases during live streaming shopping. With this aim, a convenience sample of 394 Malaysian consumers who had previously experienced on live streaming shopping were collected via a self-administered questionnaire. Proposed hypotheses and data analysis were tested using the Statistics Package for Social Sciences (SPSS).

Besides, the Stimulus Organism Response model was employed as a theoretical model in this study to investigate the influence of price discount, visual appeal, interactivity on consumers' impulse purchase during live streaming as well as perceived enjoyment act as a mediator variable.

The findings of this research reported that visual appeal and interactivity has a positive impact on consumer's perceived enjoyment during live streaming. It was also revealed that perceived enjoyment and price discount inspire consumers impulse to purchase during live streaming shopping. In addition, the empirical findings also found that the perceived enjoyment plays a mediating role among visual appeal, interactivity and impulse purchase. At the end of this study, theoretical contributions, managerial implications, limitations and recommendations for future research are provided.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

Chapter 1 gives a brief synopsis of the research topic, which comprises the research background, problem statement, research questions, research objectives, research scope, and the significance of research.

1.1 Research Background

The breakthrough in technology has given a fresh way for consumers and businesses to interact and are constantly changing consumer behavior (Cambra-Fierro et al., 2021). As mentioned by Paul and Rosenbaum (2020), thanks to recent technologies and innovations, the way markets are traded between the sellers and buyers has also changed. As expected, many merchants and retailers have transformed their business to online, and also consumers are increasingly making their purchases online rather than in-person, which has accelerated the growth of e-commerce.

Live streaming commerce is hailed as the latest trend in e-commerce, and it has become a new way or channel for buyers to purchase (Hu & Chaudhry, 2020; Geng et al., 2020). Basically, live streaming commerce is a term that combines "e-commerce" and "real-time interactive live broadcast" (Cai & Wohn, 2019). In other terms, live streaming commerce is interpreted as the transactions and the activities of e-commerce are transmitted via live streaming platforms (Xu, Wu, & Li, 2020). Besides, live streaming commerce can be divided into three types, which are (1) an e-commerce website or e-commerce application integrates with the live streaming functions (i.e., Taobao, Shopee, and Lazada); (2) social networking sites which adding live streaming functions to boost sales (i.e., Facebook, Instagram, and TikTok), as well as (3) originally a live streaming platform, but may include commercial events (i.e., Twitch and LiveMe) (Wongkitrungrueng, Dehouche & Assarut, 2020).

With the live streaming commerce gaining popularity quickly, the world has set off an upsurge of live streaming shopping (Sun et al., 2019). According to Chevalier (2022), consumers in the Asia-Pacific region are more interested in livestream commerce than consumers in other parts of the world. This new business trend started to sprout in 2015 and is booming in 2019 (Lee & Chen, 2021). Taobao e-commerce platform was the pioneer of this business model, and it took the lead in launching the live stream business in 2016, which has ushered in a new of e-commerce and became popular in China (Arora et al., 2021). Afterwards, Douyin, Kuaishuo, etc. also entered China's live commerce market, which makes China the largest live streaming market in the world. In 2020, the volume of live streamers in China has exceeded 130 million, while live streaming users were reached 716 million, accounting for 62.4% of the total amount of Internet users in China (Global, 2021). With a 35% market share, Taobao remains by far the largest player in the world (Arora et al., 2021).

In recent years, live streaming business has also experienced exponential growth in Southeast Asia. In 2020, The Gross Merchandise Value (GMV) of live stream commerce in Vietnam, Thailand, the Philippines, and Singapore has increased by 306% (AsiaTechDaily, 2021). According to Edge by Ascential (2022), Vietnam and Thailand are at the forefront of live streaming adoption in Southeast Asia. In 2021, these two countries have the largest number of consumers using live streaming to purchase products, with the proportions of Vietnamese consumers and Thai consumers reaching 70% and 61% respectively (Ganbold, 2022). Moreover, 60% of businesses in Philippines are also using live streaming selling to reach their consumers (AsiaTechDaily, 2021). Shopee stated that a 40x increase in live streaming from Singapore-based brands and sellers to connect virtually and engage with their customers (Liew, 2021).

The outbreak of the Coronavirus pandemic over the past few years has been one of the driving factors for this e-commerce business model to flourish in Malaysia. Statistics show that in Malaysia, the total streaming time of e-commerce platforms has increased by 200% (Lin, 2022). In addition, another research conducted in 2021 by Ganbold (2022), found that 79% of consumers in Malaysia were aware of live streaming commerce, 48% of consumers have been exposed to live streaming commerce, as well as 35% of consumers have purchased products through live streaming. According to GlobalData (2020), the e-commerce market of Malaysia

is forecasted to reach RM 51.6 billion by 2024 (US\$12.6 billion), growing at a 14.3% of compound annual growth rate (CAGR) from 2020 to 2024.

In Malaysia, Shopee, Lazada, Facebook and Instagram have become hugely popular for livestream shopping (The Star, 2019). For instance, Lazada has launched an immersive real-time feature on its mobile application in December 2018, and just to catch up the Lazada 12.12 sales (The Star, 2019). Correspondingly, this live streaming feature has become a marketing channel for new Lazada sellers and newly established brands to engage the consumers (The Star, 2018). After that, Shopee Malaysia also launched Shopee Live in May 2019, with this live streaming feature has strengthen the shopping experiences of the consumers (The Star, 2019a). In the end, Shopee Live has achieved great success. Shopee said: "Tyra Kamaruzzaman who an influencer, launched her brand successfully. Beautyra's latest lipstick was sold out through Shopee Live in a few minutes and received more than 2,000 orders." (The Star, 2019a)

The real-time and highly interactive of live selling has creates a sense of urgency, which caused buyers to be forced to make a purchase decision on the spot (Nguyen, 2021). In the same manner, there are a lot of studies have conducted examining on the impulse purchasing behavior of China's consumers in live streaming. Nevertheless, research on the impulse purchasing behavior of Malaysian consumers during live streaming is limited. Therefore, this literature research gap provides the purpose for this research.

1.2 Problem Statement

With the emergence of live streaming commerce worldwide, many extant empirical studies had been conducted on examining the consumer impulse purchasing during live streaming in the context of China (Ming et al., 2021; Lee & Chen, 2021; Huang & Suo, 2021, Yu, Cheah, & Liu, 2022; Lou, Jiao, Jo, & Koh, 2022). However, there is limited research study on the live streaming commerce industry in Malaysia context, hence, this has become a research gap of this study. As live streaming shopping also catches on in Malaysia in recent years, it is particularly important to further investigate what are the factors that could trigger impulse purchase behavior among Malaysian consumer during live streaming.

Accordingly, visual appeal is a decisive factor affecting user pleasure (Merhi, 2016). Existing research found that the more attractive the visual appeal of an online store display, the perceived enjoyment of customer will be higher (Amanah & Harahap, 2020). Another research also confirmed that the greater levels of perceived enjoyment can be derived by visually appealing in the setting of online shopping (Friedrich, Schlauderer & Overhage, 2019). However, there is few empirical studies to date that have investigated the impact of visual appeal of live selling sessions on customers' perceived enjoyment in the background of live streaming commerce. Thus, understanding the impact of visual appeal on customers' perceived enjoyment is beneficial for the live commerce sellers in considering the aesthetic value of their live stream sessions.

The biggest success of live streaming commerce as compared to traditional online e-commerce is that live broadcast provides a real-time social interaction between the streamers and consumers. Interactivity is arguably a key characteristic of live streaming that allows for marketing communications. Prior research evidence that interactive experience when using a technology can evoke the strongest emotions and response from users (Blythe & Hassenzahl, 2018). However, the relevant empirical studies on examining the interactive experience (interactivity of live streaming) on consumers emotions is at present limited. Hence, in this research, we are going to explore how customer's perceived enjoyment is affected by interactivity of live streaming.

Chen & Yao (2018) found that consumers respond favourably and make impulsive purchases when a product is offered at a discounted price. Previous research found that price discount is a key marketing stimulus triggering greater online impulse purchase intentions (Xu & Huang, 2014; Chen & Wong, 2016). Nevertheless, there is limited relevant study have been conducted in the background of live-commerce environment. By understanding the relationship of price discount between consumer's impulse purchase, it enables online merchants in Malaysia to develop suitable sales promotion strategies to increase consumers' purchase intention in live selling, thereby increasing its sales revenue.

In recent years, there have been many studies investigating the perceived enjoyment on customers' impulse purchases (Le et al., 2022; Nguyen & Nguyen, 2022; Moreno, Fabre & Pasco, 2021; Karim et al., 2021; Chen, Li & Zhao, 2020) in the context of the social commerce and e-commerce platforms. Hasim et al. (2020) discovered that customer with higher perceived enjoyment have potential to purchase impulsively at online retail stores among generation Z in Malaysia. However, little research attention has been devoted to perceived enjoyment on consumer's impulse purchase in the setting of live streaming commerce. Thus, it is important to close the gap on how perceived enjoyment will have an impact on consumers' impulse purchase during live streaming activities.

1.3 Research Questions

The study examines the triggers of impulse purchases among Malaysian consumers during live streaming. Based on the discussion in research problem, it specifically addresses the following research questions:

1. Does visual appeal significantly influence the perceived enjoyment that triggers consumer's impulse purchases during live streaming?
2. Does interactivity significantly influence the perceived enjoyment that triggers consumer's impulse purchases during live streaming?
3. Does perceived enjoyment significantly influence the consumer's impulse purchases during live streaming?
4. Does price discount significantly influence the consumer's impulse purchases during live streaming?
5. Does perceived enjoyment mediates the influence of visual appeal on consumers' impulse purchases during live streaming?
6. Does perceived enjoyment mediates the influence of interactivity on consumer's impulse purchases during live streaming?

1.4 Research Objectives

1.4.1 General Objective

The fundamental objective of the study is to determine the triggers of impulse purchases among Malaysian consumers during live streaming.

1.4.2 Specific Objective

The main objectives of this study are:

1. To examine the influence of visual appeal on perceived enjoyment that triggers consumer's impulse purchases during live streaming.
2. To examine the influence of interactivity on perceived enjoyment that triggers consumer's impulse purchases during live streaming.
3. To examine the influence of perceived enjoyment on consumer's impulse purchases during live streaming.
4. To examine the influence of price discount on consumer's impulse purchases during live streaming.
5. To examine the mediating effect of perceived enjoyment between visual appeal and consumer's impulse purchases during live streaming.
6. To examine the mediating effect of perceived enjoyment between interactivity and consumer's impulse purchases during live streaming.

1.5 Scope of the study

The study is focused on the triggers of Malaysian consumers' impulse purchase during live streaming. Investigate the influence of visual appeal, interactivity, price discounts as a stimulus which cause consumers to make impulse purchases. An online survey was conducted which is using Google Form for the aim of data collection.

The scope of the study is restricted to individuals who had prior live shopping experience. The population size of this study was determined based on convenience random sampling with a sample size of 394 individuals. The data were collected through Google Form between the dates of 12 February and 28 March 2023 in the country of Malaysia. All information and conclusions drawn from this study refer only to this specific group of respondents.

1.6 Significance of the study

Considering the continuous growth of the live shopping trends in Malaysia, there is a need to review the situation of live stream commerce sellers and consumers' impulse purchasing intentions during live streaming sessions. This research study has significant implications for several areas.

First and foremost, the study has provided valuable insights into the impulse purchasing behavior of Malaysian consumers in the context of live streaming e-commerce. It can help businesses and marketers understand how consumers make decisions while watching live streaming events and identify the factors that drive their impulsive purchases. These insights can help extant live streaming sellers to come out with sustainable marketing strategies to meet consumer preferences and increase its sales. For instance, live streaming sellers can use the insights to create more engaging content, offer limited-time discounts, or use persuasive language to encourage impulse purchases. Not only that, these insights are also useful for those local sellers who plan to live streaming as a marketing channel in the future to promote its products or brands to reach their customers.

On the other hand, the study also contributes to the broader literature on consumer's impulse purchasing behavior. This can help researchers and academics to develop new theories, models, and frameworks to explain consumer behavior and impulse buying in different contexts. Academicians who intend to carry out related empirical study in the future can refer to this research to support and fill in the gaps in the literature.

In conclusion, this study is crucial research that can offer insightful information on the field of consumer behavior, impulse purchase, and marketing strategies. By understanding the factors that drive impulse purchases during live streaming events, businesses can develop more effective marketing strategies to cater to consumer behavior and preferences, boost e-commerce growth, and stimulate economic growth in Malaysia. As a result, this research topic is significant and relevant for researchers, academicians, businesses, and marketers alike.

1.7 Conclusion

In short, this chapter has provided an overview of the global live streaming commerce trends and the current situation of live streaming commerce in Malaysia. The aim of this study is to determine the factors driving impulse purchases during live streaming by Malaysian consumers and provide valuable insights for businesses, researchers, and policy makers.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

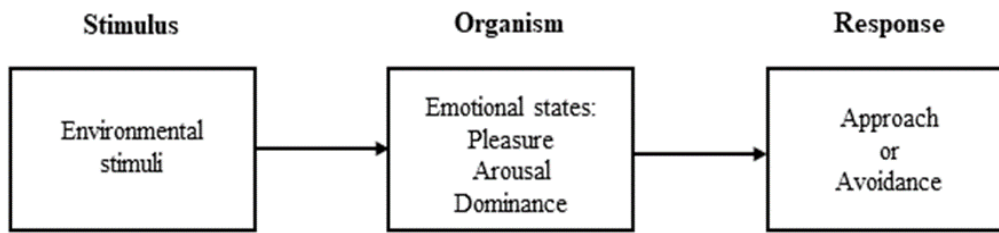
Chapter 2 a comprehensive literature review of variables (IV and DV) is introduced in this chapter. Besides, a relevant underlying theoretical model is provided as a guide for this research, followed by proposed conceptual framework of this study and hypothesis development.

2.1 Underlying Theories

2.1.1 Stimulus-Organism-Response Model (SOR)

Stimulus-Organism-Response (SOR) Model was created by Mehrabian and Russell (1974), in which it is studying about of the environment psychology. This model illustrates how an individual reacts to environmental stimuli (Mehrabian & Russell, 1974). Based on the SOR model shown in Figure 2.1, it has been demonstrated that stimuli and human behavioral response (actions, reactions) are mediated by organism component (Mehrabian & Russell, 1974). Generally, the SOR model is made up by three elements, which is stimulus, organism, as well as response. Stimulus (S) is generally considered as an external factor to the individual; Organism (O) usually refers to the internal state induced by environmental stimuli; Response (R) refers to the final result or outcome.

Figure 2.1: Stimulus-Organism-Response Model



Source: Mehrabian and Russell (1974)

The model posits that certain external factors may elicit a particular cognitive or emotional reaction, in which could cause a change in consumer behavior (Jacoby, 2002). SOR model proposes that consumer emotions have become a considerable part in responding to environment stimuli to which they are exposed. Furthermore, this model pointed out that environmental interpretation and conscious and unconscious perception can affect a person feeling (Donovan & Rossiter, 1982). According to Mehrabian and Russel (1974), emotional state can be explained along three dimensions, namely pleasure, arousal, and dominance (PAD). Pleasure (P) is measure the degree to which people feel happy or pleasant about something. Arousal (A) is measure of how energized or active a person feels. Dominance (D) is one feels in form of being controlled and influence in an environmental. Thus, these dimensions assume that each environmental will generate certain emotional conditions for the individual.

Response in SOR model usually refer to consumers' final decisions or outcomes, which may involve either an approach behavior or avoidance behavior (Sherman, Mathur & Smith 1997; Donovan & Rossiter, 1982). An approach behavior represents a positive action by consumer (e.g., intention to stay, browsing, and making purchases) that directly towards a particular setting. (Bitner 1992; Mehrabian & Russell 1974). Therefore, an impulse purchasing behavior will be the approach behavior being examined in the study.

SOR model is not only used as a fundamental theory to determine consumer behavior in traditional retail stores, but also helping in the investigating consumer purchasing behavior in an online setting (Eroglu, Machleit & Davis, 2003). With the surge in e-commerce activity,

consumers now frequently make impulse purchases online, and without considering their financial situation. Recently, various empirical studies have used this SOR model paradigm to examine the online impulse buying behavior (Liu et al., 2020; Chen & Yao, 2018; Huang, 2016; Wang, 2015). Chan, Cheung & Lee (2017) proposed that the two forms of stimuli, such as external stimuli (i.e., situational stimulus, marketing stimulus, and website stimulus) and internal stimuli (consumer characteristics) of e-commerce stimulate cognitive and affective reaction of consumer, which could usually lead to online impulse purchase response.

2.2 Review of Variable

2.2.1 Impulse Purchase

According to Stern (1962) defined impulse purchase as “a sudden, unplanned, compelling, and hedonic” purchasing behavior. Parboteeah, Valacich and Wells (2009) refer to impulse purchase as a purchase decision is made without taking into account all of the information and options that are accessible. Besides, impulse purchase is interpreted as a completely irrational urge to purchase (Chung, Song & Lee, 2017). In the same vein, impulse purchase has been characterized by irrationality and is driven mostly by emotions (Verhagen & Van Dolen, 2011). Weinberg and Gottwald (1982) explained that impulse purchase is the immediate purchase of consumers in the process of purchasing due to the shopping environment and strong emotional reactions. Generally, impulse purchase was first appeared in the context of brick-and-mortar stores. Applebaum (1951) described an impulse purchase is one that a customer does not plan to make before visiting a store, but is instead motivated by the stimulation provided by the retail store and results in the actual purchase. Youn & Faber (2020) also stated that impulse purchase may be affect by external stimuli manipulate by marketers to encourage consumers to purchase. On this basis, some studies have confirmed that different in-store stimuli can induce consumers' impulse purchase such as store atmosphere (Akram et al., 2016), sales promotions (Bhuvaneshwari & Krishnan, 2015), friendly employees (Husnain et al., 2019). Due to the explosion of ecommerce, it is very common for consumers to make online impulse purchase, because doing so frees them from any restrictions that might exist in a brick-and-mortar store (Andronie et al., 2021; Chan, Cheung & Lee, 2017). In the scenario of online shopping, Sharma et al., (2010) showed that consumers' impulse purchase is influenced by

emotions, spontaneous behavior, and low cognitive control as well as the appealing objects. As such, in this study, impulse purchase refers to the tendency of consumers to make unplanned purchases through the influence of emotion state while watching live streaming sales (Verhagen & Van Dolen, 2011).

2.2.2 Visual Appeal

Visual appeal is defined as “being attractive or beautiful” (Hall, 2007). Similar to past study by (Frohlich, 2004), explaining visual appeal is statistical construct of attractive-unattractive judgement about an object. Other authors like Lindgaard, Fernandes, Dudek and Brown (2016) have also described the term “visual appeal”, which refers to visual experience, while being driven by “aesthetic” and “beauty” may refer to various sensory modalities. Isik and Vessel (2021) mentioned that when experiencing an aesthetically appealing visual, the visual content is the basis for computing the aesthetic value. According to El-Darwish (2019), visual aesthetics refers to “the beauty or the pleasing appearance of things”. Sevener (2003) argued that the visual appeal of product can composed of different aesthetic attributes such as form, color, material and graphic elements. Likewise, Wirya (1999) stated that visual appeal is the appearance of a product package or label, where color, shape, branding, illustration, letters and layouts that work together to provide the best overall impression of visual appeal. Besides, Parbotteah, Valacich and Wells (2009) defined visual appeal in terms of website, which refers to the front's styles and other visual elements that enhance the website's overall appearance. In the context of social commerce platform, visual appeal is the richness of the platform brought about by visual elements (i.e, images) (Xiang et al., 2016). In general, high visual appeal is more likely to capture individuals' attention and lead to positive experience. Prior studies have proven that creating good visual aesthetics leads to better usability (Stojmenovic, Biddle, Grundy, & Farrell, 2018), user experience (Frederick, Mohler, Vorvoreanu, & Glotzbach, 2015) and purchase intentions (Brewer & Sebby, 2021). Based on the conceptualizations, visual appeal in this study refers to the attractive level of live streaming session layout (Frohlich, 2004).

2.2.3 Interactivity

Interactivity is defining as “the facility by which organizations and individuals communicate with each other directly no matter of distance or time” (Blattberg & Deighton, 1991). Deighton and Sorrell (1996) identified two main characteristics of interactivity, which are the capability to converse with someone and the capability to recognize that person's responses. Besides, Liu and Shrum (2002) describe interactivity as “the extent to which two or more communication parties can act on each other, on messages, on communication medium, and the extent to which these influences are synchronized”. Bonner (2010) agreed that interactivity is the levels to which interactions take place in two parties' mutual communication. The definition of interactivity provided by Chopdar and Balakrishnan (2020), it represents the degree of response needs between audience and communicator to each other and five characteristics are proposed, including playfulness, selectivity, connectedness, information collection and reciprocal communication”. As the rapid growth of technology, consumers are no longer buying in physical stores compared to ecommerce. Stewart and Pavlou (2002) believed that online shopping can provide a wider range of interactive functions than traditional offline shopping. In a virtual shopping environment, interaction is critical to determine consumers' behavior (Akram et al. 2017; Xiang et al. 2016;). In online commerce setting, interactivity serves as a key atmosphere cue to excite consumers' emotional states and cognitive, which in turn how they respond behaviorally (Sheng & Joginapelly, 2012). Based on this study, interactivity refers to the interpersonal communication between the streamers and consumers with the interactive functions on the live streaming commerce (Yoo, 2011).

2.2.4 Price Discount

A price discount is “a reduction in the percentage of the original price” (Gauri et al., 2017). In other words, price discount is an offer when a product is sold less than the original price (Nagadeepa, Selvi & Pushpa, 2015). Xu and Huang (2014) defined price discount is a price-based promotional strategy in which same product is offered to the customer at a lower price. Basically, price discounting is considered as one of the tactics that businesses employ to maintain brand reputation and create positive image in consumers' minds in order to stand out

in the future (Noor, 2020). Correspondingly, Razy & Lajevardi (2015) pointed out that price discount is used to increase the short-term sales by giving consumers a savings incentive. Also explained by Chen et al. (2012), the price discount is a time-limited price reductions offered by the merchant. According to f and Corfman (1999), price discount may attract consumers due to economic incentive, which ultimately has the benefits of increasing sales. Bell, Ho and Tang (1998) stated that consumers can really experience the real bargains, therefore, the larger the price is discounted, the more opportunities there are for consumers to actually purchase. Based on the above arguments, price discount in this study refers to the temporary price reduction provided of products by live streaming sellers to driving consumers to purchase products immediately (Chen et al., 2012; Shi, Cheung & Prendergast, 2005).

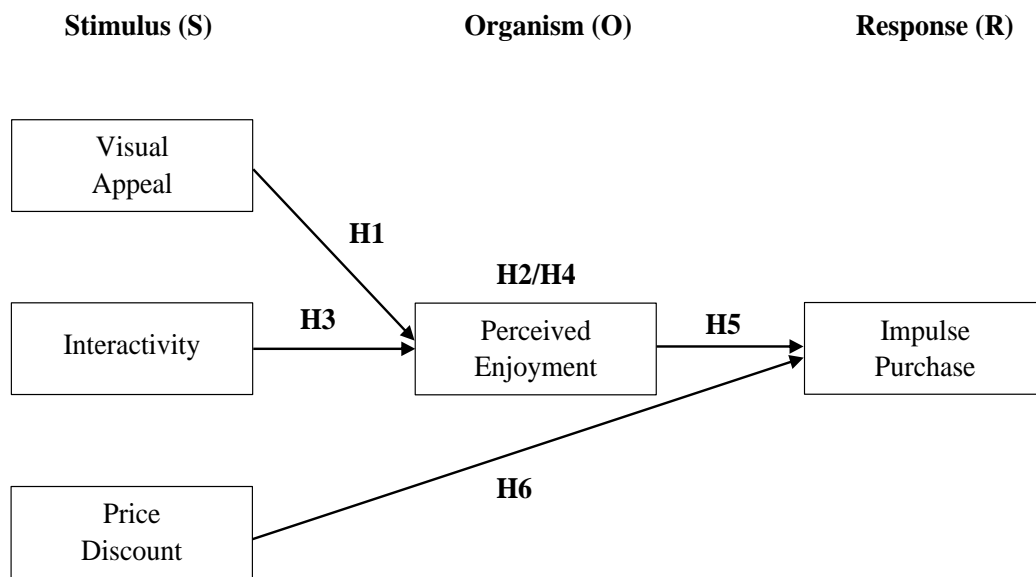
2.2.5 Perceived Enjoyment

When in contact with the environment, the mood of a person will be infected by the affection. According to Park et al. (2012), perceived enjoyment defines as “the extent of an individual’s internal feelings of pleasure when interacting with an environment”. Whereas, Davis (1989) explained perceived enjoyment is the perception and feeling of joyfulness that users experience while utilising a certain system. Botes, Dewaele and Greiff (2020) sated that perceived enjoyment is a positive emotional state in which psychological needs are satisfied. Verhagern and Van Dolen (2011) found that positive emotions for consumers include, enjoyment, excitement, inspiration and relaxation. Perceived enjoyment has been found to be an accepted concept for capturing one’s affective reaction (Parboteeah et al., 2009). In the circumstance of online store website, perceived enjoyment denotes the degree of the shopping activity on the site itself is perceived as enjoyable, except by any physical effects that might be expected (Parboteeah et al., 2009). Xiang et al. (2016) refer the perceived enjoyment as the level of pleasant consumers perceive when they are adopting a specific function of an image sharing in a social commerce app. It also refers to the consumer’s satisfaction and mental happiness after using the site or system, which can be characterized as the emotional needs of consumers in the purchase process (Liu et al., 2020). In this study, perceived enjoyment defines as the extent to which an individual engage with live streaming shopping will be interesting and correlated it with the enjoyment (Suki & Suki, 2011).

2.3 Proposed Conceptual Framework

Triggers of Malaysian Consumers' Impulse Purchase During Live Streaming.

Figure 2.2 Conceptual Framework



Source: Developed for the research.

Figure 2.2 depicts the proposed conceptual framework of this research. This framework was developed based on the S-O-R model. This research proposes a direction to explore the relationship of antecedent variables which measuring the consumer's impulse purchase behavior during live streaming in Malaysia. In this framework, it consists of three independent variables, including visual appeal, interactivity, price discount, and perceived enjoyment as a mediator variable which used to evaluate the impulse purchase behavior of consumers during live streaming.

2.4 Hypotheses Development

2.4.1 The relationship between visual appeal and perceived enjoyment on consumer's impulse purchase during live streaming

Previous research indicated that visual appeal is a stimulus that triggers the cognitive and affective reaction of a consumer (Zheng, Men, Yang & Gong, 2019). When shopping online, consumers cannot perceive the products by touch, depriving them of the real products experience, so visual graphic display become very important for consumers, it can provide consumers with product information to compensate for the experience, and ultimately emotional recognition from consumers. Xiang et al. (2016) demonstrated that the graphic presentation (visual appeal) in online stores could improve virtual haptic experiences of consumers, thereby evoking strong positive emotions (perceived enjoyment). Besides, Huang (2016) highlighted the more vivid the pictures of the products at online, the higher emotional identity of consumers. In a similar vein, recent empirical research found that the visual appeal of mobile commerce positively impacts on consumers' perceived enjoyment (Zhang, Leng & Liu, 2020). In addition, another research found that consumers' emotional states are influenced by the way products are presented visually on an online store's website, leading to high levels of online impulsive purchase (Vonkeman, Verhagen, & Van Dolen, 2017). Similarly, visual appeal of the content and layout elicits positive emotions, which subsequently encourage impulsive of purchases (Liu et al. 2013), particularly among young buyers (Djafarova and Bowes 2021). Based on the analysis, the study proposes the following hypothesis:

H1: Visual appeal has a significant positive influence on perceived enjoyment of consumer's impulse purchase during live streaming.

H2: Perceived enjoyment mediates between visual appeal and consumer's impulse purchase during live streaming.

2.4.2 The relationship between interactivity and perceived enjoyment on consumer's impulse purchase during live streaming

With the development of technology, consumers are more interested on online shopping than traditional shopping. The biggest factor is interactivity (Yang & Shen, 2018; Sedig et al., 2014). Live-streaming commerce can also become a popular ecommerce channel for selling products or services due to its real-time interaction characteristic. According to Klimmt, Hartmann & Frey (2007), the findings revealed that interactivity plays an important role in contributing to the players' perceived enjoyment in a video game context. Resonating with Nee (2020) found that interactivity factors such as two-way communication had a major impact on perceived enjoyment in e-learning systems. Moreover, earlier study argued that impulse purchases might occur when consumers experience an enjoyable feeling in the interactive functions (Bressolles, Durrieu & Giraud, 2007). Consequently, the study proposes the hypothesis as follows:

H3: Interactivity has a significant positive influence on perceived enjoyment of consumer's impulse purchase during live streaming.

H4: Perceived enjoyment mediates between interactivity and consumer's impulse purchase during live streaming.

2.4.3 The relationship of perceived enjoyment on consumer's impulse purchase during live streaming

Past research showed that the primary motivator of impulse buying was positive emotions (Sohn and Lee, 2017; Verhagen & Van Dolen, 2011). Ning Shen and Khalifa (2012) discovered that positive emotions (i.e., arousal and pleasure) have positive impacts on the urge to buy impulsively. Also, Rook and Gardner (1993) supported that both enjoyment and arousal is significant influence on impulsive purchase. Specifically, in the context of social commerce platform, perceived enjoyment of user was found to have a significant effect on the user's urge to buy impulsively (Xiang et al., 2016). Existing past research also found that there is a positive

relationship between perceived enjoyment and impulse purchasing behavior when consumers shop in a virtual store (Saad & Metawie, 2015). Likewise, Ko (2018) found evidence of a significant relationship between user's perceived enjoyment towards the advertisement on Facebook News Feed and impulse purchases. Hence, it is reasonable to predict that the increase in perceived enjoyment of consumers may lead to impulse purchases during live streaming. The hypothesis is put forward as follows:

H5: Perceived enjoyment has a significant positive influence on consumer's impulse purchase during live streaming.

2.4.4 The relationship of price discount on consumer's impulse purchase during live streaming

The presence of price discounts creates an incentive for customers to buy. Price attribute found to positively influence consumers behavior (Yu et al., 2017). Price discount is believed to encourage consumers to make impulsive purchases and to be a beneficial marketing strategy for businesses, increasing their profits (Larasati & Yasa, 2021). Additionally, it has been observed that customers may make impulsive purchases of goods when they are aware of price discounts (Ranto et al., 2021). Huang & Suo (2021) also claimed that price discount is related to consumers making impulsive decisions to purchase a preferred product. Oftentimes, customers never have intended to purchase, but when an attractive price discount are offered, customers induce impulse purchase (Safa'atillah, 2017). Numerous research have proven that price discount has impact on impulsive purchase (Saputro, 2019; Qaisar, Sial & Rathour, 2018; Wahyudi, 2017). Past research (Xu & Huang, 2014) also examined the impact of two different types of the sales promotions (bonus packs and price discounts) on online impulse purchasing and found that price discount has the greatest impact on online impulse purchase. Therefore, it is expecting that price discount may lead to an increase in impulse purchase of consumers during live streaming shopping. The study proposes the hypothesis:

H6: Price discount has a significant positive influence on consumer's impulse purchase during live streaming.

2.5 Conclusion

In summary, this chapter discusses a literature review on the triggers that cause consumers to purchase impulsively during live streaming shopping in Malaysia. Then, a conceptual framework is proposed based on the SOR Model to correlate independent variables (visual appeal, interactivity, price discount) with the dependent variable (impulse purchase) and a mediator variable (perceived enjoyment).

CHAPTER 3: METHODOLOGY

3.0 Introduction

Chapter 3 discusses about the research methodology, which has been broken down into several sections including the research design, sampling design, data collection methods, research instruments, constructs measurement, pilot test as well as data analysis technique.

3.1 Research Design

A research design is described as “a blueprint or framework composed of the data collection, measurement, and analysis, constructed to address a particular research question (Ridder, 2017). Whereas Kazdin (2021) described a research design as an experimental arrangement or plan for testing hypothetical question of interest. According to Creswell (2014), research design provides the researchers with guidance and specific direction throughout the research process and chooses the appropriate research method before the data collecting and data analysis process.

3.1.1 Quantitative Research

Quantitative research has been defined differently by different researchers. Cohen and Manion (1980) defined quantitative research as the empirical statements and the empirical methods are represented in a numerical form. Besides, Creswell (2014) pointed out that quantitative research is the interpretation of a particular occurrence by the collection of numerical data, which are analyzed while using mathematically based methods and specific statistics. Also, Disman, Ali and Barliana (2017) stated that quantitative research is a sort of research that uses statistical data to answer the research problem and testing the hypothesis.

Therefore, a quantitative data was collected to test the proposed hypothesis in this study to find out the variables that can trigger impulsive purchases among Malaysian consumers during live streaming shopping. Holton and Burnett (2005) declared that one of the benefits of quantitative research approach methods is that it is particularly powerful in generalizing to a large population or a group of people from the collected samples.

3.1.2 Descriptive Research

According to the definition of Issac and Michael (1982), descriptive research is defined as research that systematically and accurately describes the facts and characteristics of a specific population or an area of interest. Zikmund et al. (2013) pointed out that descriptive research is to portray the respondents' characteristics from the aspects of their objects, person, groups, organization as well as surrounding environment.

By taking this definition, descriptive research is employed because it is able to characterize the traits of consumers who engage in live shopping. Based on these characteristics and attributes, researcher can investigate of the circumstances in which Malaysian consumers' impulse purchase behavior occur while shopping live streaming and examine the emotional and external factors that contribute to impulsive purchasing behavior.

3.2 Sampling Design

Sampling is referring to a process of picking a subset from the population for investigation (Rahi, 2017). Malhotra and Birks (2007) asserted that a smaller group of people has the capability to make inferences to the larger group of population. Hence, collecting a sufficient number of respondents is very important for researcher to generalize the characteristics, beliefs, and attitudes of the population (Mweshi & Sakyi, 2020; Hair et al., 2003).

3.2.1 Target Population

Elfil and Negida (2017) clarified that a target population is a group of people that the researcher anticipates making inferences about. The target population of this research is those Malaysian consumers who have purchasing experience through live streaming commerce. There are no special restrictions on the age, ethnicity, occupation, income level, etc. of the target respondents, as long as the respondents meet the requirements to be Malaysians and have experience of live streaming commerce shopping.

3.2.2 Sampling Frame

A sampling frame is referred to the collection of source material from which a sample is being selected (Turner, 2003). In other words, sampling frame has been determined as a complete list of sample units drawn from a population (Rahman, 2020). The application of sampling frame is insignificant for this research. This is because there is no complete and availability listing of the Malaysian live streaming consumers. Therefore, it is exceedingly challenging for researcher to gather the data on the target population, due to the limited resources and time constraints.

3.2.3 Sampling Technique

Due to the no listing, therefore, a convenience sampling technique is being selected for data collection. The respondents who fulfil the following criteria: (1) prior live shopping consumers and (2) Malaysian nationality, were selected at random in this research. Convenience sampling generally refers to a process of the collection of people who are readily and conveniently available to participate in this study (Rahi, 2017; Taherdoost, 2016). Through using convenience sampling methods, researchers gain easier, convenient (Sekaran & Bougie, 2016) and cost-effective (Rahi, 2017) access to primary data sources for research.

3.2.4 Sampling Size

Rosceo (1975) proposed that the sample sizes greater than 30 and less than 500 are suitable for most of the empirical research. Based on the rules of thumb in determining sample size by Krejcie & Morgan (1970), refer to appendix A (Table 3.1), it indicated that the sample size of 384 can generalize about 1,000,000 of the target population. In general, a larger sample size could minimize the margin of error when generalizing the population (Saunders et al., 2019). A total of 410 respondents were received for this research and after screening out the non-target respondents (10 respondents without live streaming shopping experience and 6 non-Malaysians), a final sample of 394 was left for further data analyze.

3.3 Data Collection Methods

3.3.1 Primary Data

Hox and Boeije (2005) explained primary data as original data that are gathered for a specific research purpose or issue at hand. Primary data can be collected through distinct methods including focus groups, observations, experiments, interviews, and surveys. Today, most researchers were used electronic system to collect primary data, as it has proven to be superior to paper-based methods (Neelankavil, 2015). In this research, the primary data was collected through an online survey to facilitate automatic data collection, interviewing respondents at a distance, thus reducing the time and effort of researchers (Wright, 2005). Also, online survey has the added benefit of obtaining a large random sample, which makes research conclusion more robust (Allen, Titsworth & Hunt, 2008). A Google Form was prepared and distributed to assemble the primary data from the respondents, comprising of different categories of respondents like students, employed, housewife, etc.

3.3.2 Secondary Data

Secondary data is “the data that was previously collected by someone else and processed statistically” (Mazhar et al., 2021). Secondary data offer researchers relatively easy and cheap access to obtain the useful information or insight to answer their research questions (Jones, 2010). Google scholar is the main search engine tool to collect the secondary data in this study, along with other official websites that publish journals, articles, and thesis paper like Science Direct, Emerald, Elsevier, etc. These secondary data were collected to support the result and findings of the study. Moreover, this study also uses e-newspapers to explore the overview of live streaming commerce trends in Malaysia.

3.4 Research Instrument

3.4.1 Questionnaire Design

Survey non-response has become a severe issue for most high education scholars or researchers (Porter, 2004). Dillman (2011) found that different approaches of survey design (i.e., length of survey, structure of questions) might affect the increase in response probability. Therefore, it is very important that a well-developed questionnaire consist of a proper introduction, instructions and a well-structured question set, this is because it makes it more easier for the respondents to answer the questions, which can lead to higher response rate. In this research, a self-administered questionnaire is designed. Each question provides respondents with multiple choice answers, so they can easily and quickly select the correct response or the answer that best represents them.

Regarding the typesetting of the questionnaire, a cover page was set on the first page of the questionnaire, clearly disclosing on the research objectives, research topic, and informing the respondents on the assurance of privacy and confidentiality as well as the respondent's acknowledgement in this research. Followed by the main body of questionnaire, which involving four sections (Section A, B, C and D).

In Section A, a screening question is designed with the purpose for filtering out consumers who do not have experience on live streaming shopping in order to increase the precision and avoid irrelevant results and errors. In Section B designed the demographic questions of the respondent, including nationality, gender, age, ethnicity, highest education level, occupation, and individual monthly income level, with the purpose of obtaining the basic information of the respondents. Whereas Section C involved general questions about consumer purchasing behavior during live streaming. For instances, questions about the frequency of consumers perform live shopping, platform use for watching live streaming, product categories usually searched in live shopping and average monthly spending for live shopping. In addition, Section D deals with the questions of investigating independent variables that affect consumers' impulse purchase during live streaming, such as visual appeal, interactivity, price discount, as well as perceived enjoyment as a mediator.

3.4.2 Instrument Development

Table 3.2 shows the details of the measurement items based on different construct in the research.

Table 3.2: Survey Instrument

Variable	Source	Item	Statement
Price Discount	(Syci, 2021)	PD1	The price discount in the livestreaming attracted my attention.
		PD2	I was tempted by the low price of products in livestreaming.
		PD3	When I saw a product on sale in the livestreaming, I got the desire to buy it.
		PD4	The stronger the discount, the easier it is to make me want to buy.
Visual Appeal	(Huang & Suo, 2021)	VA1	Streamers make a clear presentation of the products for sale.
		VA2	The way the streamers present the product is very attractive.
		VA3	The overall visual effect of the live streaming room is very good.
		VA4	I like the overall layout of the live streaming room.
Interactivity	(Lin, Tseng, Shirazi, Hajli, & Tsai, 2022)	IN1	I can communicate directly with the online streamer.

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		IN2	I can communicate directly with other participants.
		IN3	I can interact with others by leaving a message.
		IN4	It makes me feel engaged while reading other's responses.
Perceived Enjoyment	(Lee & Chen, 2021)	PE1	Shopping with live streaming commerce was exciting.
		PE2	Shopping with live streaming commerce was enjoyable.
		PE3	Shopping with live streaming commerce was interesting.
		PE4	I found my visit to live streaming commerce was fun.
		PE5	Shopping with live streaming commerce was fun for its own sake.
Impulse Purchase	(Lin, Tseng, Shirazi, Hajli, & Tsai, 2022)	IP1	When the item I want to buy is limited has a time limit, it makes me want to own it impulsively.
		IP2	When the item I want to buy is limited, I want to urge to buy impulsively.
		IP3	The atmosphere of being strongly introduced by the online streamer will increase my desire to buy immediately.
		IP4	While many consumers expressed their willingness to buy, I would prefer to buy it quickly.
		IP5	Promotions in live stream shopping make me want to buy items instantly.

Source: Developed for the research.

3.5 Measurement Scales

3.5.1 Nominal Scale

The nominal scale measurement was used in this study to assess elements including live shopping experience, nationality, gender, ethnicity, occupation, platform use for watching live streaming and product categories usually searched in live shopping in Section A, B, and C of the questionnaire.

Figure 3.1: Example of Nominal Scale in Questionnaire

- Nationality**
- () Malaysian
 - () Non-Malaysian

Source: Developed for the research.

3.5.2 Ordinal Scale

The ordinal scale measurement was used in Section B and Section C of the questionnaire in this study. As an illustration, age, highest education level, individual monthly income level in Section B, and frequency of live shopping and average monthly spend during live shopping in Section C.

Figure 3.2: Example of Ordinal Scale in Questionnaire

- Individual Monthly Income Level**
- () Below RM 2,000
 - () RM 2,000 – RM 4,000
 - () RM 4,001 – RM 6,000
 - () Above RM 6,000

Source: Developed for the research.

3.5.3 Likert Scale

According to Malhotra and Peterson (2006), 5-point Likert scale is the most common scale format. With a Likert's scale 5 points, it is easy for the respondents to read out the entire list of scale descriptors (Joshi et al., 2015). Bouranta, Chitiris and Paravantis (2009) mentioned that a 5-point Likert scale can reduce confusing and increase response rates. Therefore, a 5-point Likert Scale is adopted in Section D of questionnaire to analyze all the variables (PD, VA, IN, PE, and IP).

Table 3.3: Likert Scale Measurement

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Source: Developed for the research.

Table 3.4: Example of Likert Scale in Questionnaire

Factor 1: Price Discount

	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	The price discount in the livestreaming attracted my attention.	1	2	3	4	5
2.	I was tempted by the low price of products in livestreaming.	1	2	3	4	5
3.	When I saw a product on sale in the livestreaming, I got the desire to buy it.	1	2	3	4	5
4.	The stronger the discount, the easier it is to make me want to buy.	1	2	3	4	5

Source: Developed for the research.

Table 3.5: Summary of Measurement Scales based on the Questionnaire Section

Section	Title	Items	Measurement Scales
A	Screening	Live shopping experience	Nominal
B	Demographic Profile	Nationality	Nominal
		Gender	Nominal
		Age	Ordinal
		Ethnicity	Nominal
		Highest Education Level	Ordinal
		Occupation	Nominal
		Individual Monthly Income Level	Ordinal
C	General Question	Frequency of live shopping	Ordinal
		Platform use for watching live streaming	Nominal
		Product categories usually searched in live shopping	Nominal
		Average monthly spends during live shopping	Ordinal
D	Factors	Price Discount	Likert Scale
		Visual Appeal	
		Interactivity	
		Perceived Enjoyment	
		Impulse Purchase	

Source: Developed for the research.

3.6 Pilot Test

Pilot test can be viewed as a small scale of research project (Zikmund et al., 2010). Pilot testing helps minimize the problem possibility that respondents will encounter in answering the questionnaire and allowing some assessment on the construct validity and reliability of the data to be collected (Saunders et al., 2016).

In this research, 40 respondents were randomly selected from the study area, and they were asked to answer the questions in the questionnaire. However, there involves of some respondents did not meet the research criteria, among which 4 respondents who had no prior experience with live streaming shopping and 1 non-Malaysian respondent have been deleted. In the end, 35 respondents were used for pilot testing, and the results are shown in the table below:

Table 3.6: Pilot Test Reliability Study

Variable	Items	Scale	Cronbach's Alpha
Price Discount	4	1-5	0.912
Visual Appeal	4	1-5	0.877
Interactivity	4	1-5	0.893
Perceived Enjoyment	5	1-5	0.908
Impulse Purchase	5	1-5	0.748

Source: Developed for the research.

According to Straub et al. (2004), the reliability of a pilot study ought to be equal to 0.60 or higher than that. Based on the results, the Cronbach's Alpha value of each construct is greater than 0.60, it indicates that all variables are acceptable to be reliable. Besides, Hinton, Brownlow and McMurray (2004) proposed that there are four cut-off values to determine the level of reliability, including (1) low reliability (0.50 and below), (2) moderate reliability (0.50-0.70), (3) high reliability (0.70-0.90), (4) excellent reliability (0.90 and above). Hence, the variable of PD and PE are considered to have excellent reliability, and remaining three variables (VA, IN, IP) have high reliability.

3.7 Data Analysis Technique

3.7.1 Descriptive Analysis

3.7.1.1 Frequency Distribution

Frequency distributions are typically used to summarize the categorical variables and are expressed as percentages. Basically, frequency distribution can be presented graphically or tabular form. In this research, the data analysis of the respondents' demographic profile was displayed based on both graphical (e.g., pie charts) and tabular (e.g., frequency distribution tables) methods. This is due to the fact that frequency distribution tables can clearly present a snapshot of the collected data, enabling researchers to quickly spot trends. While a pie chart produces information that is easier to interpret and shows the relative proportion of each segment clearly.

3.7.2 Internal Reliability Test

An internal reliability analysis is a process to test both internal consistency and reliability of items in a scale (Cronbach, 1951; Heale & Twycross, 2015). Cronbach's alpha is regarded as the most commonly measurement for testing the internal consistency (Cronbach, 1951). When the Cronbach's alpha value is closer to 1, it indicates that the construct has a higher level of internal consistency reliability (Sekaran & Bougie, 2016). If the value is under 0.6, internal consistency reliability of construct is considered low and unsatisfactory, where those items are advised to remove from the measure to increase the inter-item consistency (Sekaran & Bougie, 2016). In addition, the reliability is acceptable when the value is 0.7 or above (Shrestha, 2021).

Table 3.7 below shows the rules of thumb for Cronbach' Alpha.

Table 3.7: Cronbach' Alpha Rule of Thumb

Cronbach's Alpha	Internal Consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Source: Jain & Angural (2017)

3.7.3 Inferential Analysis

3.7.3.1 Multiple Linear Regression Analysis

Multiple regression analysis is known as a statistical approach to assess the variance in the dependent variable by regressing the independent variables against it (Sekaran & Bougie, 2016). This analysis objectively evaluates the extent of the relationship between one dependent variable and multiple independent variables and (Mark & Goldberg, 1988).

The general formula equation for multiple regression analysis is as follows:

$$y = b_1X_1 + b_2X_2 + \dots + b_nX_n + c.$$

In this research, two equations are proposed:

$$\text{Equation 1: } PE = b_1VA + b_2IN + c$$

$$\text{Equation 2: } IP = b_1PE + b_2PD + c$$

Whereby, PD = Price Discount

VA = Visual Appeal

IN = Interactivity

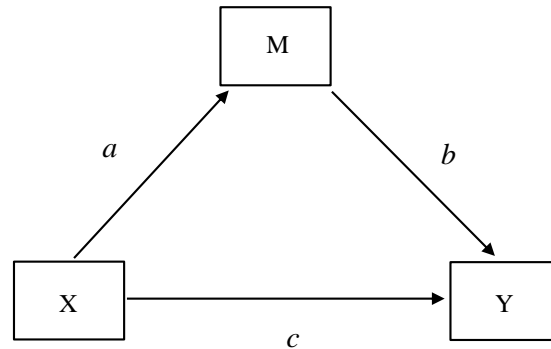
PE = Perceived Enjoyment

IP = Impulse Purchase

In a regression analysis, there involves several statistical values to analyze the result. Firstly, R^2 is a statistical measure used to quantify the proportion of the dependent variable's variance that is explained by the independent variables (Karch, 2020). The greater the R^2 value, the better the model fits your data (Kasuya, 2019). Besides, F-value is used to judge whether the overall regression model statistically significance (Aydin, 2015). Meanwhile, the t-value is used to judge the individual predictor significance (Aydin, 2015). Generally, p-value in regression analysis is intended to help researchers decide whether to accept or reject a hypothesis. According to Mousavi and Parvini (2016), the number of p-value below 0.05, indicating that there is a significant relationship. Unstandardized Beta (B) is used to explain the change in size of the dependent variable due to one-unit change in the independent variable (Olsen, McLaughlin & Harpe 2020). Moreover, standardized beta value (β) is to identify which of the independent variables have greater effect on the dependent variable (Olsen, McLaughlin & Harpe 2020).

3.7.3.2 Mediation Analysis

Mediation analysis is a set of statistical procedures used that help the researchers to examine whether mediation structure exists in a particular data (Iacobucci, 2008). The idea of a mediation is that it acts as a third variable, transmitting the effect of one variable to another (MacKinnon, 2012). Based on Hayes and Preacher (2014), they focused on the simple mediation model in Figure 3.3, which depicts a causal sequence in which X influence Y indirectly through a mediator (M).

Figure 3.3: Simple Mediation Model

Notes: X = Independent variable, M = Mediator, Y = Dependent variable

Source: Hayes & Preacher (2014)

Abu-Bader and Jones (2021) stated that the relationship between two variables (IV and DV) can either be direct effect or indirect effect. Direct effect occurs when the relationship between X and Y is not affected by a third variable, denoted by the paths “a” and “b”, while indirect effect occurs when the relationship between X and Y is affected or mediated by other variables, representing the path “c” in the Figure 3.3 (Abu-Bader & Jones, 2021).

Baron & Kenny (1986) proposed that the equations for the total, direct, and indirect effects of two variables (X and Y) in mediation persistence are as follows:

$$\text{Total effect: } c = c' + (a \times b)$$

$$\text{Direct effect: } c' = c - (a \times b)$$

$$\text{Indirect effect: } c - c' = a \times b$$

Additionally, Woodworth (1928) described the SOR theory, which postulates that organism may has mediating mechanism to intervene in stimulus and response. In this research, perceived enjoyment as an organism is intervened based on SOR model, which acts as a mediator between independent variables (VA and IN) and dependent variable (IP). To investigate this mediating effect, the Hayes' PROCESS Macro will be used (Hayes, 2013).

This study employs the PROCESS macro's bootstrap approach look at the confidence intervals for the direct and indirect effect, and total effect to investigate the mediation effect. An indirect effect is significant when the 95% bootstrap confidence interval limit (BootLLCI and BootULCI) does not include zero, indicating a significant mediation effect (Schütze et al., 2020). Baron and Kenny (1986) stated that the determination of full or partial mediation is depending on the p-values of the direct effect (c'). According to Rasoolimanesh et al. (2021), the direct effect is significant, meaning that the effect between X and Y is partially mediated by M, while the direct effect is not significant, showing that the effect of X on Y is fully mediated by M. In other words, Baron and Kenny (1986) claimed that when there is indirect effect but doesn't have direct effect, namely "full mediation." When both of the indirect and direct effects are present, they refer to it as "partial mediation." Furthermore, Arumi, Aldrin and Murti (2019) mentioned that if indirect effect is zero, indicates that there is no mediation.

3.8 Conclusion

In brief, this chapter covered various methodology used to conduct the research. Both quantitative research and descriptive research has been proposed to use in this research. Whilst, a convenience sampling technique is suggested to collect the primary data source in investigating internal reliability and testing on the relationship of the hypothesis. Secondary data also one of the data collection methods being used in this research to support the research findings and results. In the last part, the descriptive analysis and inferential analysis were also presented.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

Chapter 4 clarifies the overall research results and findings, beginning with an analysis of the demography profile of the respondents. In this part, the Statistical Package for the Social Sciences (SPSS) software version 29 was exploited to analyze the research data. Furthermore, multivariate test results are also presented.

4.1 Respond Rates and Screening

A Google form was created to collect data on Malaysian consumers who had previously shopped during the live streaming. During data collection, a Facebook status post was published in order to reach more individuals to fill up the survey. Additionally, the survey link was also sent and shared through WhatsApp, Facebook messenger and Microsoft Teams. Overall, 450 questionnaires were distributed and 410 of the questionnaires were returned, which yielded a response rate of 91.1%. Afterwards, a screening process was performed to eliminate consumers without live shopping experience (10 cases) and non-Malaysians (6 cases), and 394 questionnaires will be proceeding to further analysis.

4.2 Demography of Respondent

Therefore, this section continues with the analysis of these 394 respondents. The analysis involved the respondents' gender, age, ethnicity, highest education level, occupation, individual monthly income level, frequency of live shopping, platform use for watching live streaming, product categories usually searched in live shopping, average monthly spend during live shopping. The graphical (i.e., pie chart) and tabular (i.e., frequency distribution table) are used to explain and visualize the demographic profile of the respondents.

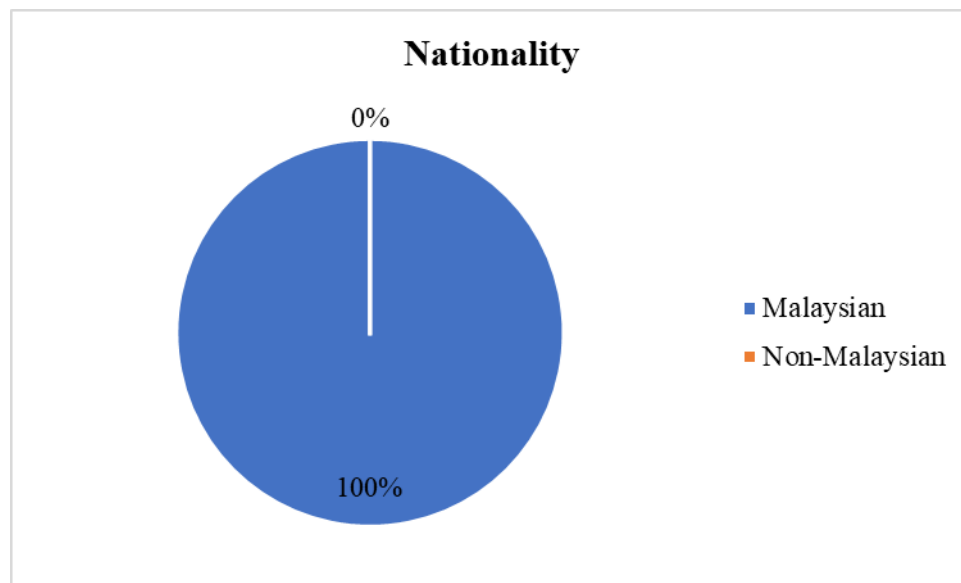
4.2.1 Nationality

Table 4.1 Nationality

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Malaysian	394	100.0	100.0	100.0
Non-Malaysian	0	0	0	
Total	394	100.0	100.0	

Source: Developed for the research.

Figure 4.1 Nationality



Source: Developed for the research.

Table 4.1 and Figure 4.1 depict the nationality of the respondents. There are 100% of respondents were Malaysian and 0% of respondents were non-Malaysian.

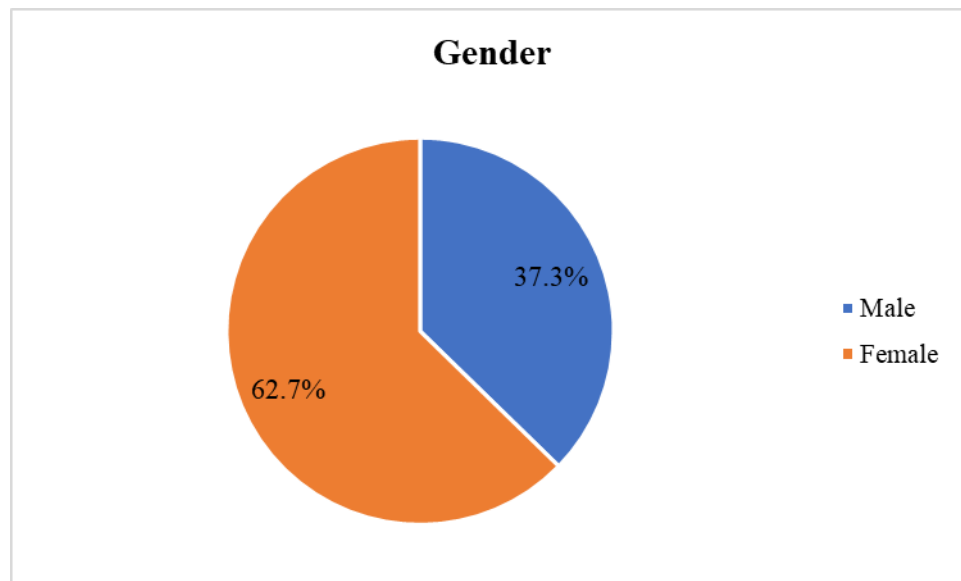
4.2.2 Gender

Table 4.2 Gender

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Male	147	37.3	37.3	37.3
Female	247	62.7	62.7	100.0
Total	394	100.0	100.0	

Source: Developed for the research.

Figure 4.2: Gender



Source: Developed for the research.

Table 4.2 and Figure 4.2 show the gender of the respondents. The majority of respondents were female, accounting for 62.7%, while male accounted for only 37.3%.

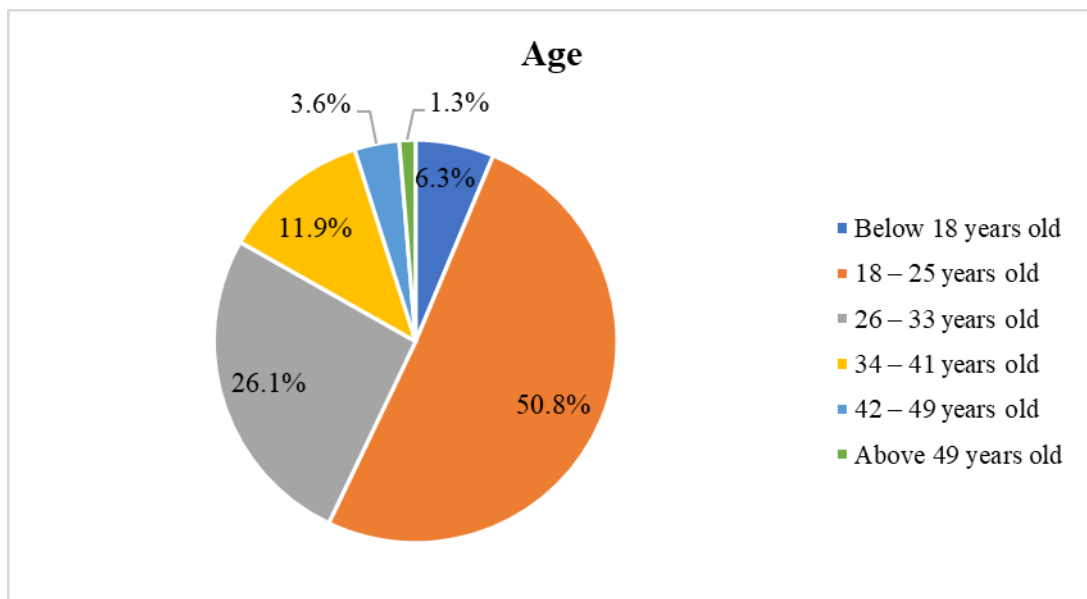
4.2.3 Age

Table 4.3: Age

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Below 18 years old	25	6.3	6.3	6.3
18 – 25 years old	200	50.8	50.8	57.1
26 – 33 years old	103	26.1	26.1	83.2
34 – 41 years old	47	11.9	11.9	95.1
42 – 49 years old	14	3.6	3.6	98.7
Above 49 years old	5	1.3	1.3	100.0
Total	394	100.0	100.0	

Source: Developed for the research.

Figure 4.3: Age



Source: Developed for the research.

Table 4.3 and Figure 4.3 demonstrate the ages of the respondents. Most of respondents aged 18-25 years old, accounting for 50.8%, followed by age of 26-33 years old (26.1%) and 34-41 years old (11.9%). In addition, respondents who aged below 18 years old has accounted for 6.3%. Minority of the respondents were come from the age of 42-49 years old and above 49 years old, with the percentage of 3.6% and 1.3% respectively.

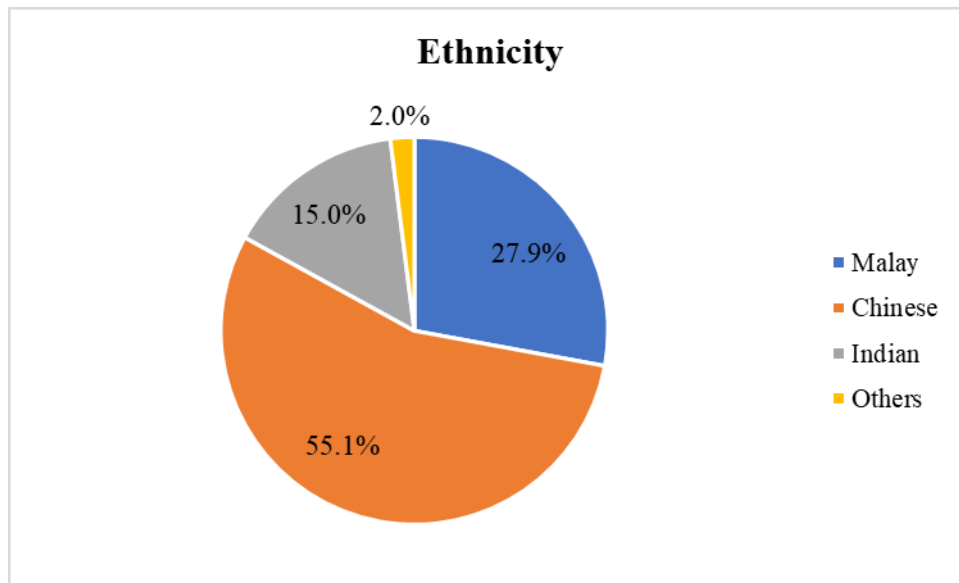
4.2.4 Ethnicity

Table 4.4: Ethnicity

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Malay	110	27.9	27.9	27.9
Chinese	217	55.1	55.1	83.0
Indian	59	15.0	15.0	98.0
Others	8	2.0	2.0	100.0
Total	394	100.0	100.0	

Source: Developed for the research.

Figure 4.4: Ethnicity



Source: Developed for the research.

Table 4.4 and Figure 4.4 exhibit the ethnicity of the respondents. The ethnicity of respondents consists of Chinese at 55.1%, Malay at 27.9%, Indian at 15.0% and others at 2.0%. Ultimately, ethnic Chinese were heavily weighted in this study, while Indian's weight were relatively lower.

4.2.5 Highest Education Level

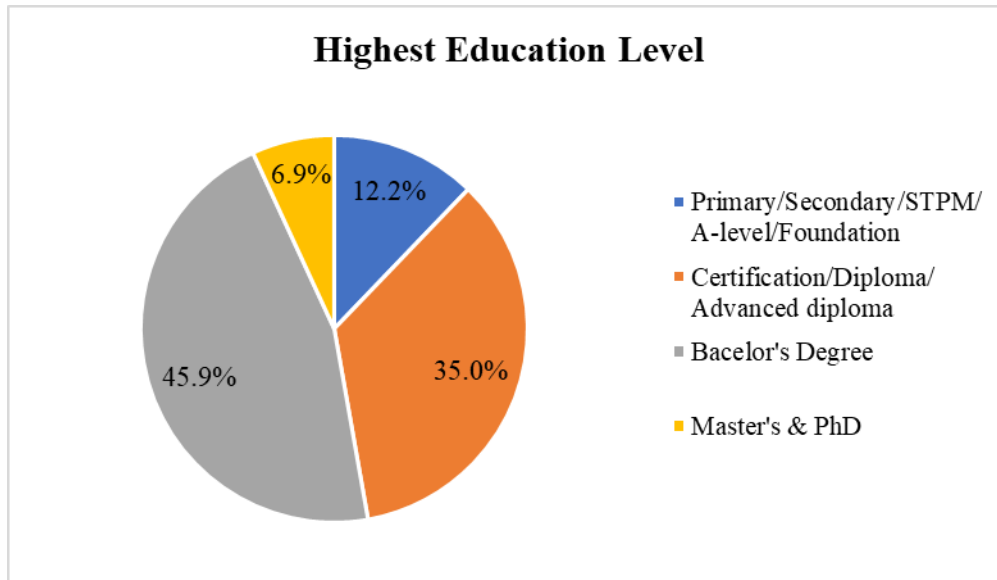
Table 4.5: Highest Education Level

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Primary/Secondary/ STPM/A-level/ Foundation	48	12.2	12.2	12.2
Certification/Diploma/ Advanced diploma	138	35.0	35.0	47.2
Bachelor's Degree	181	45.9	45.9	93.1
Masters & PhD	27	6.9	6.9	100.0

Total	394	100.0	100.0	
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Source: Developed for the research.

Figure 4.5: Highest Education Level



Source: Developed for the research.

Table 4.5 and Figure 4.5 display the respondents' highest education level. 45.9% of the respondents indicated that they had a bachelor's degree, and 35.0% of the respondents indicated that they had graduates with certification, diploma, advanced diploma graduates. In terms of primary, secondary, STPM, A-level and foundation graduates, accounted for 12.2%. Lastly, 6.2% respondents who had a Master's & PhD academic degree.

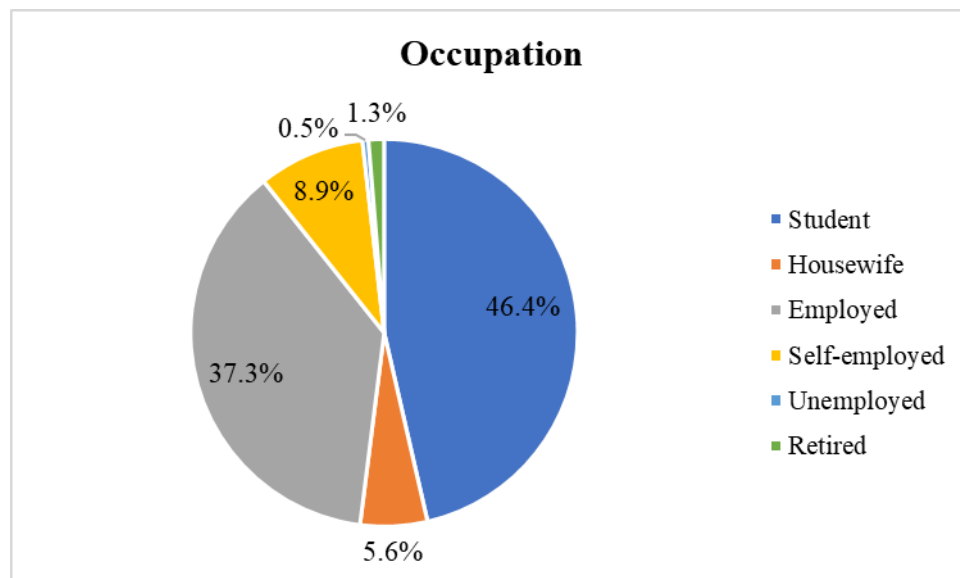
4.2.6 Occupation

Table 4.6: Occupation

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Student	183	46.4	46.4	46.4
Housewife	22	5.6	5.6	52.0
Employed	147	37.3	37.3	89.3
Self-employed	35	8.9	8.9	98.2
Unemployed	2	0.5	0.5	98.7
Retired	5	1.3	1.3	100.0
Total	394	100.0	100.0	

Source: Developed for the research.

Figure 4.6: Occupation



Source: Developed for the research.

Table 4.6 and Figure 4.6 illustrate different occupations of the respondents. Almost 46.4% of respondents identified as student, 37.3% as employed, and 8.9% as self-employed. Housewife made up 5.6% of the respondents in this research. In contrast, respondents who were unemployed and retired, which accounting for 0.5% and 1.3% respectively.

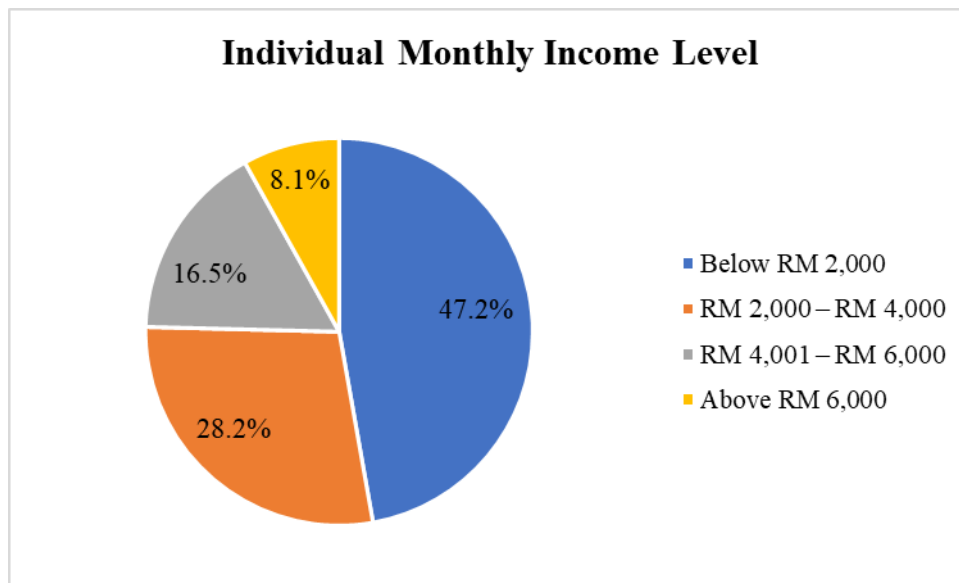
4.2.7 Individual Monthly Income Level

Table 4.7: Individual Monthly Income Level

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Below RM 2,000	186	47.2	47.2	47.2
RM 2,000 – RM 4,000	111	28.2	28.2	75.4
RM 4,001 – RM 6,000	65	16.5	16.5	91.9
Above RM 6,000	32	8.1	8.1	100.0
Total	394	100.0	100.0	

Source: Developed for the research.

Figure 4.7: Individual Monthly Income Level



Source: Developed for the research.

Table 4.7 and Figure 4.7 provide the individual monthly income level of the respondents. Respondents with an income level below RM 2,000 (47.2%) made up the largest proportion. Besides, 28.2% of respondents stated that their income level is between RM 2,000 – RM 4,000, while 16.5% of respondents said their income level is range between RM 4,001 – RM 6, 000. Also, 8.1% of respondents indicated that their income level was above RM 6,000 per month.

4.2.8 Frequency of Live Shopping

Table 4.8: Frequency of Live Shopping

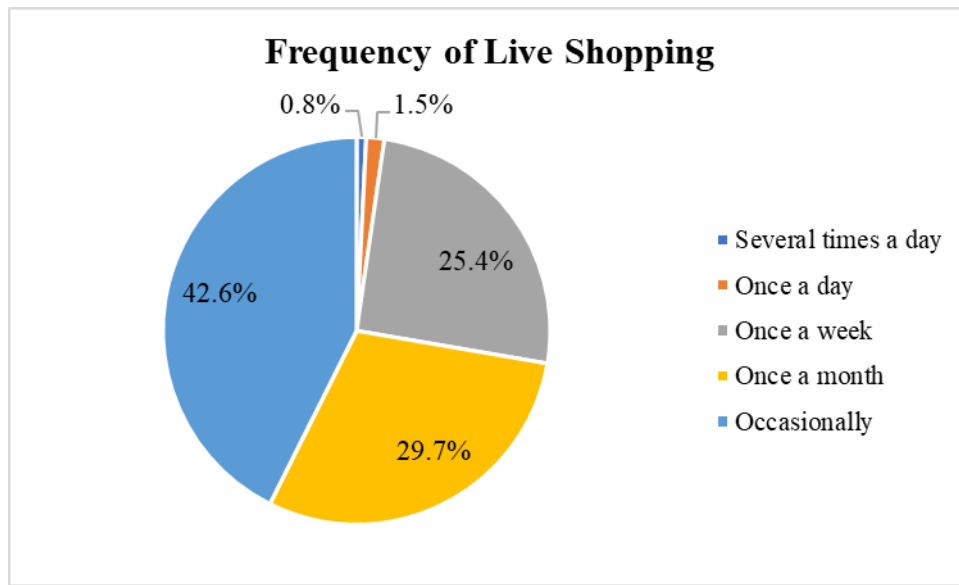
	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Several times a day	3	0.8	0.8	0.8
Once a day	6	1.5	1.5	2.3
Once a week	100	25.4	25.4	27.7
Once a month	117	29.7	29.7	57.4

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Occasionally	168	42.6	42.6	100.0
Total	394	100.0	100.0	

Source: Developed for the research.

Figure 4.8: Frequency of Live Shopping



Source: Developed for the research.

Table 4.8 and Figure 4.8 represent the frequency of respondents performed live shopping. Judging from the above data, over 42.6% respondents occasionally make purchases through live streaming. Whereas 29.7% respondents were live shopping once a month and 25.4% respondents did so once a week. Only 1.5% of respondents indicated they performed live streaming shopping once a day. Conversely, fewer respondents made live shopping several times in one day, which occupied of 0.8%.

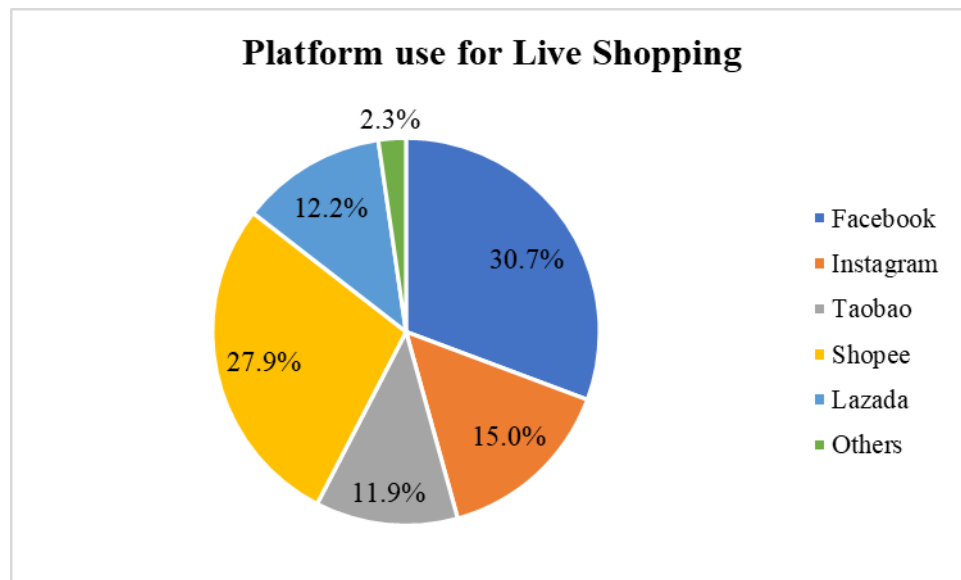
4.2.9 Platform use for Live Shopping

Table 4.9: Platform use for Live Shopping

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Facebook	121	30.7	30.7	30.7
Instagram	59	15.0	15.0	45.7
Taobao	47	11.9	11.9	57.6
Shopee	110	27.9	27.9	85.5
Lazada	48	12.2	12.2	97.7
Others	9	2.3	2.3	100.0
Total	394	100.0	100.0	

Source: Developed for the research.

Figure 4.9: Platform use for Live Shopping



Source: Developed for the research.

Table 4.9 and Figure 4.9 indicate the platforms respondents use to live shopping. Facebook accounted for the largest proportion of Malaysian respondents conducting live streaming shopping, with percentage of 30.7%. Shopee ranked second among platforms with 27.9%, followed by Instagram at 15.0%, Lazada at 12.2% and Taobao at 11.9%. Endwise, 2.3% of the respondents neither use Facebook, Instagram, Taobao, Shopee, Lazada to conduct the live streaming shopping.

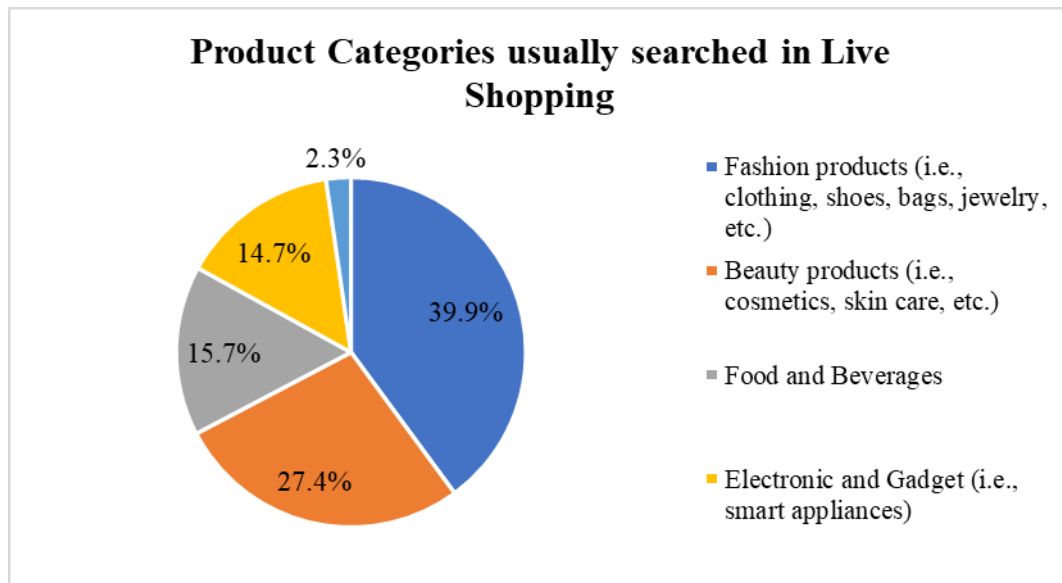
4.2.10 Product Categories usually searched in Live Shopping

Table 4.10: Product Categories usually searched in Live Shopping

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Fashion products (i.e., clothing, shoes, bags, jewelry, etc.)	157	39.9	39.9	39.9
Beauty products (i.e., cosmetics, skin care, etc.)	108	27.4	27.4	67.3
Food and Beverages	62	15.7	15.7	83.0
Electronic and Gadget (i.e., smart appliances)	58	14.7	14.7	97.7
Furniture	9	2.3	2.3	100.0
Total	394	100.0	100.0	

Source: Developed for the research.

Figure 4.10: Product Categories usually searched in Live Shopping



Source: Developed for the research.

Table 4.10 and Figure 4.10 show the product categories usually searched by respondents in live shopping. It was revealed that fashion products (i.e., clothing, shoes, bags, jewelry, etc.) were the most common searched products during live streaming, accounting for 39.9%. Moreover, 27.4% of the respondents were looking for beauty products (i.e., cosmetics, skin care, etc.) in live streaming session. Food and beverages accounted for 15.7% and electronic and gadget products (i.e., smart appliances) accounted for 14.7%. By contrast, furniture was accounted for a very small proportion at 2.3%.

4.2.11 Average Monthly spend During Live Shopping

Table 4.11: Average Monthly Spend During Live Shopping

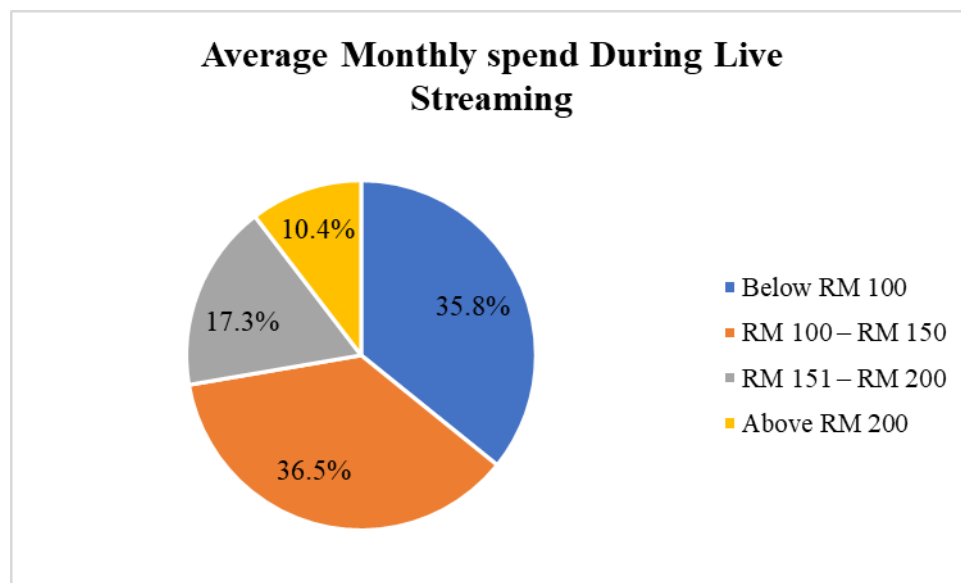
	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Below RM 100	141	35.8	35.8	35.8
RM 100 – RM 150	144	36.5	36.5	72.3

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RM 151 – RM 200	68	17.3	17.3	89.6
Above RM 200	41	10.4	10.4	100.0
Total	394	100.0	100.0	

Source: Developed for the research.

Figure 4.11: Average Monthly spend During Live Shopping



Source: Developed for the research.

Table 4.11 and Figure 4.11 manifest the average monthly spending of respondents during live shopping. Regarding the average monthly expenditure of live shopping, there are about 36.5% respondents expressed that they spent with a range of RM 100 – RM 150, and another 35.8% respondents spent below RM 100. Some respondents spent with a range of RM 151 – RM 200 in a month (17.3%), while only 10.4% respondents spent above RM 200 per month on live shopping.

4.3 Descriptive Statistic of Variable

In this section, the mean and standard deviation of each construct (PD, VA, IN, PE, IP) will be reviewed, with 394 of the respondents.

4.3.1 Mean and Standard Deviation of Price Discount

Table 4.12 Mean and Standard Deviation of Price Discount

Item	Statement	Mean	Standard Deviation
PD1	The price discount in the livestreaming attracted my attention.	4.44	0.668
PD2	I was tempted by the low price of products in livestreaming.	4.36	0.694
PD3	When I saw a product on sale in the livestreaming, I got the desire to buy it	4.37	0.810
PD4	The stronger the discount, the easier it is to make me want to buy.	4.61	0.695

Source: Developed for the research.

Table 4.12 shows the mean and standard deviation values of the price discount variable for each item was adopted in the questionnaire. The results showed that all items for the construct were above the average of 4, which means that most of the respondents agreed and strongly agreed with the items in the questionnaire. PD4 had the highest mean value at 4.61, while PD2 has the lowest mean value at 4.36.

4.3.2 Mean and Standard Deviation of Visual Appeal

Table 4.13 Mean and Standard Deviation of Visual Appeal

Item	Statement	Mean	Standard Deviation
VA1	Streamers make a clear presentation of the products for sale.	4.10	0.732
VA2	The way the streamers present the product is very attractive.	4.08	0.726
VA3	The overall visual effect of the live streaming room is very good.	4.08	0.763
VA4	I like the overall layout of the live streaming room.	4.10	0.798

Source: Developed for the research.

Table 4.13 illustrates the mean and standard deviation values of the visual appeal variable for each item was adopted in the questionnaire. The results revealed that all items for the construct were above the average of 4, meaning most of the respondents agreed and strongly agreed with the items in the questionnaire. The mean values of VA1 and V4 are higher at 4.10, while the mean values of VA2 and VA4 are the lowest at 4.08.

4.3.3 Mean and Standard Deviation of Interactivity

Table 4.14 Mean and Standard Deviation of Interactivity

Item	Statement	Mean	Standard Deviation
IN1	I can communicate directly with the online streamer.	4.13	0.801
IN2	I can communicate directly with other participants.	4.12	0.849
IN3	I can interact with others by leaving a message.	4.32	0.841
IN4	It makes me feel engaged while reading other's responses.	4.23	0.793

Source: Developed for the research.

Table 4.14 exhibits the mean and standard deviation values of the interactivity variable for each item was adopted in the questionnaire. The results revealed that all items for the construct were above the average of 4, which means that most of the respondents agreed and strongly agreed with the items in the questionnaire. IN3 had the highest mean value at 4.32, while IN2 had the lowest mean value at 4.12.

4.3.4 Mean and Standard Deviation of Perceived Enjoyment

Table 4.15 Mean and Standard Deviation of Perceived Enjoyment

Item	Statement	Mean	Standard Deviation
PE1	Shopping with live streaming commerce was exciting.	4.21	0.721
PE2	Shopping with live streaming commerce was enjoyable.	4.33	0.751
PE3	Shopping with live streaming commerce was interesting.	4.38	0.721
PE4	I found my visit to live streaming commerce was fun.	4.28	0.742

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PE5	Shopping with live streaming commerce was fun for its own sake.	4.26	0.731
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Source: Developed for the research.

Table 4.15 displays the mean and standard deviation values of the perceived enjoyment variable for each item was adopted in the questionnaire. The results revealed that all items for the construct were above the average of 4, which means that most of the respondents agreed and strongly agreed with the items in the questionnaire. PE3 had the highest mean value at 4.38, while PE1 had the lowest mean value at 4.21.

4.3.5 Mean and Standard Deviation of Impulse Purchase

Table 4.16 Mean and Standard Deviation of Impulse Purchase

Item	Statement	Mean	Standard Deviation
IP1	When the item I want to buy is limited has a time limit, it makes me want to own it impulsively.	4.12	0.787
IP2	When the item I want to buy is limited, I want to urge to buy impulsively.	4.06	0.769
IP3	The atmosphere of being strongly introduced by the online streamer will increase my desire to buy immediately.	4.10	0.871
IP4	While many consumers expressed their willingness to buy, I would prefer to buy it quickly.	4.08	0.866
IP5	Promotions in live stream shopping make me want to buy items instantly.	4.43	0.811

Source: Developed for the research.

Table 4.16 represents the mean and standard deviation values of the impulse purchase variable for each item was adopted in the questionnaire. The results revealed that all items for the construct were above the average of 4, which means that most of the respondents agreed and strongly agreed with the items in the questionnaire. IP5 had the highest mean value at 4.43, while IP2 had the lowest mean value at 4.06.

4.4 Internal Reliability Test

The internal reliability of each factor was calculated using the Cronbach's alpha index. A total of 22 items being tested based on 394 samples.

Table 4.17 Internal Reliability Test

Variable	Items	Scale	Cronbach's Alpha
Price Discount	4	1-5	0.757
Visual Appeal	4	1-5	0.813
Interactivity	4	1-5	0.791
Perceived Enjoyment	5	1-5	0.811
Impulse Purchase	5	1-5	0.804

Source: Developed for the research.

Table 4.17 depicts the Cronbach's alpha values for each construct. The results showed that all constructs were found to have values above 0.7, so the reliability of all constructs was considered acceptable. PD (0.757) and IN (0.791) fall under the acceptable reliability range, while VA (0.813), PE (0.811) and IP (0.804) have good reliability based on the Cronbach's alpha rule of thumb.

4.5 Multiple Linear Regression Analysis

4.5.1 Regression Analysis for Predicting Perceived Enjoyment

Table 4.18: Regression Analysis for Predicting Perceived Enjoyment

Independent Variables	Coefficients				
	B	SE	β	t	Sig.
(Constant)	1.427	0.153		9.349	0.000
Visual Appeal	0.269	0.040	0.294	6.748	0.000
Interactivity	0.421	0.037	0.490	11.251	0.000
R^2	0.486				
Adj R^2	0.483				
F	184.664				
Sig.	0.000				
df	2				

Notes: Dependent variable: Perceived Enjoyment
 N = 394 * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

Source: Developed for the research.

From the result shown above, an equation is formed:

Equation (1):

$$PE = 1.427 + (0.269) VA + (0.421) IN$$

According to this equation, it indicates that for every 1 unit increase in VA, PE will increase by 0.269 units. While, IN increase by 1 unit, then PE will increase by 0.421 units.

As shown in table 4.18, the result show that the value of R^2 is 0.486. This illustrates that 48.6% of the variance in the perceived enjoyment can be explained by visual appeal and interactivity. While, the remaining 51.4% are the other influence factors are not explained in this research model.

The statistical result shows that two independent variables were significantly influence on perceived enjoyment in this regression model ($F = 184.664$, $p = 0.000$). Specifically, visual appeal is significantly influence on perceived enjoyment ($t = 6.748$, $p < 0.01$). This means that the more attractive the visual appeal of the live streaming session, the perceived enjoyment of consumers will be higher. Thus, H1 is being supported.

Besides, interactivity is significantly influence on perceived enjoyment ($t = 11.251$, $p < 0.01$). This means that the higher the interactivity in the live streaming session, the perceived enjoyment of consumers will be higher. Hence, H3 is also supported.

4.5.2 Regression Analysis for Predicting Impulse Purchase

Table 4.19: Regression Analysis for Predicting Impulse Purchase

Independent Variables	Coefficients				
	B	SE	β	t	Sig.
(Constant)	0.445	0.203		2.190	0.029
Perceived Enjoyment	0.589	0.049	0.529	11.908	0.000
Price Discount	0.266	0.050	0.236	5.316	0.000
R^2	0.479				
Adj R^2	0.476				
F	179.748				
Sig.	0.000				
df	2				

Notes: Dependent variable: Impulse Purchase

N = 394 *p<0.05**p<0.01***p<0.001

Source: Developed for the research.

From the result shown above, an equation is formed:

Equation (2):

$$IP = 0.445 + (0.589) PE + (0.266) PD$$

This equation indicates that for every 1 unit of PE increase, then IP will increase by 0.589 units. While, 1 unit of PD increase, IP will increase by 0.266 units.

As shown in table 4.19, the result show that the value of R² is 0.479. This illustrates that 47.9% of the variance in the impulse purchase can be explained by perceived enjoyment and price discount. However, the remaining 52.1% is the other influence variables that not explained in this research model.

The statistical result indicated that two independent variables were significantly influence on impulse purchase in this regression model (F = 179.748, p = 0.000). Specifically, perceived enjoyment is significantly influence on impulse purchase (t = 11.908, p < 0.01). This means the higher the perceived enjoyment of consumer during live streaming session, the consumers' impulse purchase will be increased. Thus, H5 is being supported.

In addition, price discount is significantly influence on impulse purchase (t = 5.316 p < 0.01). This means that the higher the price discount in the live streaming session, the consumers' impulse purchase will be increased. Hence, H6 is also supported.

4.6 Mediation Analysis

4.6.1 Mediating Effect of Perceived Enjoyment between Visual Appeal and Impulse Purchase

Table 4.20: Mediation Analysis of Perceived Enjoyment between VA and IP

Variable/Effects	B	SE	t	p	95% Confidence Interval	
					Lower Bound	Upper Bound
VA → IP	0.3257	0.0436	7.4624	0.000	0.2399	0.4115
VA → PE	0.5170	0.0381	13.5593	0.000	0.4420	0.5920
VA → PE → IP	0.5381	0.0477	11.2829	0.000	0.4444	0.6319
Effects						
Indirect	0.2782	0.0418			0.1981	0.3605
Direct	0.3257	0.0436	7.4624	0.000	0.2399	0.4115
Total	0.6039	0.0414	14.5858	0.000	0.5225	0.6853

Notes: 5000 bootstrap samples

Source: Developed for the research.

Table 4.20 illustrates the mediation analysis of perceived enjoyment between visual appeal and impulse purchase by resampling a sample of 5000 bootstrap samples.

The result showed that both confidence interval level limit of the indirect effect does not include zero (LLCI = 0.1981, ULCI = 0.3605), indicating that there is a mediation effect between visual appeal and impulse purchase. This evidences that the visual appeal is indirectly affects on consumers' impulse purchase through perceived enjoyment.

In the end, H2 is supported.

4.6.2 Mediating Effect of Perceived Enjoyment between Interactivity and Impulse Purchase

Table 4.21: Mediation Analysis of Perceived Enjoyment between IN and IP

Variable/Effects	B	SE	t	p	95% Confidence Interval	
					Lower Bound	Upper Bound
IN → IP	0.2644	0.0458	5.7755	0.000	0.1744	0.3543
IN → PE	0.5606	0.0329	17.0514	0.000	0.4959	0.6252
IN → PE → IP	0.5384	0.0533	10.1052	0.000	0.4337	0.6432
Effects						
Indirect	0.3018	0.0480			0.2096	0.4000
Direct	0.2644	0.0458	5.7755	0.000	0.1744	0.3543
Total	0.5662	0.0389	14.5554	0.000	0.4897	0.6427

Notes: 5000 bootstrap samples

Source: Developed for the research.

Table 4.21 illustrates the mediation analysis of perceived enjoyment between interactivity and impulse purchase by resampling a sample of 5000 bootstrap samples.

The result showed that both confidence interval level limit of the indirect effect does not include zero (LLCI = 0.2096, ULCI = 0.4000), indicating that there is a mediation effect between interactivity and impulse purchase. This evidences that the interactivity is indirectly affects on consumers' impulse purchase through perceived enjoyment.

In the end, H4 is supported.

4.7 Hypotheses Testing

Table 4.22 depicts the summary of hypothesis testing result for the six proposed hypotheses (H1, H2, H3, H4, H5, and H6).

Table 4.22: Summary of Hypotheses Testing Results

Hypothesis	Path	Outcome	Result
H1	VA → PE	Multiple Linear Regression $\beta = 0.294$ $p = 0.000$	Supported
H2	VA → PE → IP	Process Macro Indirect Effect: LLCI: 0.1981 ULCI: 0.3605 Direct Effect $p = 0.000$	Supported
H3	IN → PE	Multiple Linear Regression $\beta = 0.490$ $p = 0.000$	Supported
H4	IN → PE → IP	Process Macro Indirect Effect: LLCI: 0.2096 ULCI: 0.4000 Direct Effect $p = 0.000$	Supported
H5	PE → IP	Multiple Linear Regression $\beta = 0.529$	Supported

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		p = 0.000	
H6	PD → IP	Multiple Linear Regression $\beta = 0.236$ p = 0.000	Supported

Source: Developed for the research.

4.8 Conclusion

In this chapter, the statistical analysis and inferential analysis of 394 samples were provided after filtering out the consumers who have no live streaming shopping experience and non-Malaysian. Lastly, the results found that all of the proposed hypotheses are being supported.

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

5.0 Introduction

Chapter 5 summarizes the entire research study context. The statistical analysis and interpretation of the major findings are summarized in this chapter. In addition, the limitations in the research will be highlighted and the appropriate recommendations for future research will also be made.

5.1 Demographic Profile

A total of 394 Malaysian live streaming commerce consumers participated in this research. More than half of the respondents were female (247 respondents, 62.7%) and only 37.3% of respondents were male (147 respondents). The majority of respondents were between 18 – 25 years old (50.8%, 200 respondents). Also, with higher proportion of students (46.4%, 183 respondents). This is because the younger group of respondents grew up with technology, they are more inclined to keep up with the latest trends and try new experiences, resulting in a higher interest in live shopping.

Regarding the shopping behavior of Malaysian consumers through live streaming, 42.6% (168 respondents) of the respondents indicated that they will only occasionally shop through live streaming. Facebook (30.7%, 121 respondents) is the most common ecommerce platform used by them for live shopping. Besides, Malaysian consumers are more often search for fashion products (39.9%, 157 respondents) during live streaming. In addition, the average of monthly spend while live shopping is mostly between RM100 – RM150 (36.8%, 144 respondents) and only 10.8% of consumers will spend more than RM200 (41 respondents).

5.2 Discussion of Major Findings

Table 5.1 illustrates the hypothesis result of this research.

Table 5.1: Hypothesis Testing Summary

Hypothesis	Relationship	Result
H1	Visual appeal has a significant positive influence on perceived enjoyment of consumers' impulse purchase during live streaming.	Supported
H2	Perceived enjoyment has a mediation effect between visual appeal and consumer's impulse purchase during live streaming.	Supported
H3	Interactivity has a significant positive influence on perceived enjoyment of consumers' impulse purchase during live streaming.	Supported
H4	Perceived enjoyment has a mediation effect between visual appeal and consumer's impulse purchase during live streaming.	Supported
H5	Perceived enjoyment has a significant positive influence on consumer's impulse purchase during live streaming.	Supported
H6	Price discount has a significant positive influence on consumer's impulse purchase during live streaming.	Supported

Source: Developed for the research.

5.2.1 Relationship between Visual Appeal and Perceived Enjoyment

H1 argues that visual appeal is positively related to perceived enjoyment on consumers' impulse purchase during live streaming. The statistical result of this research agreed that the relationship between these two constructs ($\beta = 0.294$, $p = 0.000 < 0.01$). This result is compatible with previous evidence (Amanah & Harahap, 2020; Wong & Haque, 2022), the positive relationship between visual appeal and perceived enjoyment. Similarity, Merhi (2016)

demonstrates that visual appeal is the antecedents of perceived enjoyment. Previous empirical studies have shown that visual appeal has strong effect on the perceived enjoyment in the context of website (Ku & Chen, 2020; Mustika & Wahyudi, 2022), in context of mobile game (Merikivi, Nguyen & Tuunainen, 2016) and in the context of social commerce platform (Chen, Li & Zhao, 2020). Hence, this can be simply explained that highly attractive visual appeal could lead to higher perceived enjoyment.

5.2.2 Relationship between Interactivity and Perceived Enjoyment

H3 stated that interactivity is a predictor of perceived enjoyment in the live streaming commerce context. The statistical result of this study revealed that interactivity has a significant positive influence on perceived enjoyment of consumers' impulse purchase during live streaming ($\beta = 0.490$, $p = 0.000 < 0.01$). This finding appears to be in line with past research (Lin, Tseng, Shirazi, Hajli, & Tsai, 2022) in which there is a positive relationship between interactivity and perceived enjoyment. According to Yang and Shen (2018) the study found that interactivity is the key factors influencing consumers' perceived enjoyment. Also, Cyr, Hassanein, Head and Ivanov (2010) showed that there is a positive role of interactivity and perceived enjoyment in the context of e-Services website. Moreover, Bae et al. (2020) also claimed that interactivity is one of the most robust features to improve users' experiences and increase perceived enjoyment in the online environment. Therefore, this implies that improving interactivity can correspondingly increase consumers' perceived enjoyment.

5.2.3 Relationship between Perceived Enjoyment and Impulse Purchase

The positive role of perceived enjoyment and consumers' impulse purchase during live streaming is formulated in H5. The result of this study found there is a significant positive relationship between the perceived enjoyment on consumer's impulse purchase ($\beta = 0.529$, $p = 0.000 < 0.01$). The positive relationship between perceived enjoyment and impulse purchase was also found by prior research (Zhang, Shao, Li & Feng, 2021; Febrilia & Warokka, 2021; Crafts, 2012) in the traditional shopping context (Beatty & Ferrell, 1988). This study also validates that perceived enjoyment is a crucial predictors of impulsive purchasing behavior among Gen-Y and Gen-Z Malaysian consumers (Lee, Gan, Liew, 2022). Rao and Ko (2021)

also claimed that perceived enjoyment is the strongest factors driving consumers to make impulse purchase towards luxury brand. In short, this can explain that if the perceived enjoyment increases, then consumers' impulse purchase will definitely increase as well.

5.2.4 Relationship between Price Discount and Impulse Purchase

H6 predicted that price discount is positively associated with impulse purchase of consumers during live streaming. The significant value indicated that price discount has a significantly positive influences on consumer's impulse purchase during live streaming ($\beta = 0.236$, $p = 0.000 < 0.01$), providing support for H6. Prior studies (Roviqoh & Supriat, 2022; Edward & Luran, 2022; Noor, 2017) highlights that the role of price discount in triggering impulse purchase of consumers. The finding is similar to past findings (Andriany & Arda, 2021), verifying that the effect of price discounts toward impulse purchasing of halal food by consumers in Medan. In addition, Suhud and Herstanti (2017) found that high price discount will further enhance the occurrence of impulsive purchase by young consumers. In this sense, it can be inferred that the higher price discount of the products, the easier it is for consumers to make impulsive purchase.

5.2.5 Mediation Effect of Perceived Enjoyment between Stimulus and Impulse Purchase

H2 pointed out that perceived enjoyment plays a mediating role between visual appeal and consumers' impulse purchase during live streaming shopping. The statistical result reveal that perceived enjoyment has a mediating effect between visual appeal and impulse purchase, and confirming H2 (LLCI = 0.1981, ULCI = 0.3605). This result is also confirmed by Lee, Gan & Liew (2022) indicating that perceived enjoyment mediates the relationship between visual appeal and impulse purchase in the context of mobile wallet applications.

H4 proposed that perceived enjoyment plays a mediating role between interactivity and consumers' impulse purchase during live streaming shopping. The result of the mediation analysis illustrated that perceived enjoyment had mediating effect between interactivity and consumer's impulse purchase (LLCI = 0.2096, ULCI = 0.4000). Consistent with previous

empirical studies (Lin, Tseng, Shirazi, Hajli, & Tsai, 2022), interactivity positively affect perceived enjoyment, ultimately stimulating impulse purchase in live streaming shopping.

Furthermore, there are few existing studies confirmed that perceived enjoyment is an important mediator in affecting impulse purchase (Monero, Fabre & Pasco, 2021; Hasim, Hassan, Ishak & Razak, 2020; Do, Shih & Ha, 2020).

5.3 Implication of the Study

5.3.1 Theoretical Implications

With many businesses start offering live streaming sales, impulse purchasing is seen as a crucial factor in making transactions successful. This research is aimed to examine the factors that drive impulsive purchases during live streaming. There are three noteworthy theoretical implications emerge from this study. First, this study has employed a SOR theory to explore the impact of external stimulus (VA, IN, PD) affect the organism (PE), which in turn evoke the final response (IP). Thus, this paper has broadened the research scope of SOR theory and contributes to the literature on consumer's impulsive purchasing behavior during live streaming in the Malaysia context, thereby providing more insights and information for future research on explaining intentions. Second, this study discovered some factors that overlooked in previous studies and confirmed the role of visual appeal, interactivity, price discount, perceived enjoyment on impulsive purchase behavior of consumers. Therefore, this research has filled these gaps with the proposed conceptual model of SOR. Third, this study also investigated perceived enjoyment as a mediator within the SOR framework and validates that stimulus (VA and IN) affects the organism (PE), thus the response (IP). As a result, the SOR framework proved to be a solid framework for identifying the mediating role of organism in this newly emerging commerce.

5.3.2 Practical Implications

The findings in this study have brought some of the managerial implications for the live streaming commerce industry and are also serve as helpful reminder of key issues that require attention.

First of foremost, this study proved that interactivity plays the most critical factor in live streaming shopping to evoke perceived enjoyment. Real time interaction is an important part of live streaming, which allows sellers to better understand consumers' needs. Hence, sellers should improve their communication with consumers, allowing for real-time feedback, asking questions and discussions. Besides, when presenting products, sellers can also use interesting ways or play some interactive game with consumers, such as trivia game (viewers can participate by answering question in live chat, the first person who answers correctly can win a prize) to make consumers feel enjoy and pleasant.

Managing the overall visual appeal of live streaming session is vital to capturing consumers' attention and increase consumers' experiences. For instance, sellers should invest in high-quality cameras, microphones, and lighting equipment, as well as use props and decoration and combined with music to allow consumers to enjoy and entertain during live streaming events. Being interesting and visual appealing is essential for a brand or business increase awareness, engage with customers and ultimately increase sales.

In a competitive market, price discount can be an effective strategy for businesses to attract consumers away from competitors. The most obvious reason is that price discounts allow consumers to save money on their purchases and consumers will feel that is more worthwhile. Generally speaking, sellers' price cuts during live streaming are time-limited, which may give consumers a sense of urgency to make purchase before the discount expires. Therefore, when merchants sell products during the live streaming, they can offer lower prices than their competitors to prompt consumers to act quickly and make purchase they might not have otherwise made, especially those consumers who are price sensitive.

Last but not least, perceived enjoyment is the most important factors to arouse impulse purchase of the consumers. In order to increase the perceived enjoyment, businesses should create a highly visual and interactive live streaming session to evoke positive feeling from consumers, so as to retain the customers during live streaming session and subsequently encourage impulse purchase, thereby increase sales.

5.4 Limitation of the Study

Although this research has contributed significantly, it undoubtedly has some limitations that must be acknowledged and identified in order for the researcher to grow and improve.

5.4.1 Non-Specific Live Streaming Shopping Platform

First of all, the limitation of this study is that the researcher did not determine a specific live streaming shopping platform. Respondents only answered the questionnaire based on their recent live streaming shopping experiences; it widens the scope of research, which leads to inadequate and deviated results. This is because different live streaming commerce platforms may have distinct features of interacting with consumers, this makes the research have limited control over the live streaming environment. For example, Taobao has a fans level system shown in appendix J. The highest fan level may capture attention of the streamers, which will lead to different interaction experience for those users who do not have a level, because they may be neglected by the steamer.

5.4.2 Limit the Study Based on Positive Emotion

In the present research, the researcher only focused on determining the influence of positive emotion affecting consumers' impulse purchase during the live shopping, while neglecting the negative emotion may be possible to elicit consumers' impulse purchase. When consumers watching the live streaming sales, they will not always have positive emotions and feelings due to the nature of live streaming commerce. One of the characteristics of live streaming is the time-limited nature, may lead to negative emotions. As previous studies have found, negative emotions have even greater driving force and can therefore more easily trigger impulse purchases (Ahn & Kwon, 2022; Ortiz Alvarado, Rodríguez Ontiveros & Quintanilla Domínguez, 2020).

5.4.3 Unaccounted Constructs

Besides of the above two limitations, this study also found that a weak relation of R^2 value in the regression model. The possible reason is that there are other important factors are not accounted for in the model. The findings of this research found that the explanatory power of perceived enjoyment and impulse purchase accounted for 48.6% and 47.9% respectively, indicating that there are other factors that can affect perceived enjoyment and impulse purchasing of Malaysian consumers in live streaming shopping context.

5.5 Recommendation for Future Research

5.5.1 Focus on Specific Live Streaming Shopping Platform

As mentioned earlier, different live streaming platforms environments may bring different experiences to consumers. Thus, future research can be specific on one live streaming commerce platforms or sites to standardize the live streaming environment. For instance, researchers can investigate the impulse purchasing of consumers on Malaysian live streaming commerce platforms such as Shopee Live. This may help researchers gain a deeper understanding of Malaysian consumers impulse purchase behavior.

5.5.2 Exploring on Negative Emotion

In general, live streaming is designed often to create a time-limited environment where sellers often discount for a short period of time and offer limited stock. By doing so, consumers will feel pressured not to miss out on these promotions, and some consumers will feel overwhelmed when they see others buying in a live stream. Therefore, it is important for researchers to further explore a full range of negative emotions in the future, which may drive consumers impulsive purchase during live streaming such as fear of missing out, envy, etc. This allows the researchers to have a more comprehensive understanding of impulse purchasing decisions made by Malaysian consumers based on different emotional states.

5.5.3 Consideration of other Constructs

Future research should investigate new factors that may affect the consumers impulse purchase during live streaming to improve the overall model fit. Celebrity influencer is suggested as a new stimulus because celebrity is a new tendency. Additional stimulus predictors such as product variety (Karim, Chowdhury, Al Masud, & Arifuzzaman, 2021), time pressure (Zhao, Du, Liang & Zhu, 2019), and brand reputation (Yue & Razak, 2018) may help researchers gain a deeper insight on consumers' perceived enjoyment and impulse purchase during live streaming. In addition, trust is also one of critical factors affecting consumers impulse purchase intentions (Chen, Xie, Zhang & Li, 2021). Because impulse purchasing is not planned in advance and lacks sufficient information search process, it causes consumers face higher risks and uncertainties. Hence, customer trust may be an important as an organism predictor of investigating consumers' impulse purchase in a live streaming environment.

5.6 Conclusion

To sum up, under the guidance of stimulus-organism-response (SOR) theory, this research sheds new insight into the role of visual appeal (VA), interactivity (IN), price discount (PD), perceived enjoyment (PE) and impulse purchase (IP) in the live streaming shopping context. Results showed that positive effect of VA, IN, PD, PE on impulse purchase of consumers in live shopping. Specifically, VA and IN has positive associated with perceived enjoyment, while PE and PD has positive associated with consumers' impulse purchase. Then, it was found that IN has the greatest impact on consumers shopping enjoyment on live streaming. In addition, PE has been found to mediate between the stimulus and impulse purchase. Lastly, it is advised that future researchers to take into account new factors that may affect consumers impulsive purchase in live shopping in order to gain more comprehensive understanding on the IP behavior of Malaysian consumers.

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APPENDICES

Appendix A: Table for Determining Sample Sizes for a Given Population

Table 3.1: Table for Determining Sample Sizes for a Given Population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	265	2800	338
15	14	110	86	290	165	850	269	3000	341
20	19	120	92	300	169	900	274	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	201	1300	297	7000	364
50	44	180	123	420	205	1400	302	8000	367
55	48	190	127	440	210	1500	306	9000	368
60	52	200	132	460	214	1600	310	10000	370
65	56	210	136	480	217	1700	313	15000	375
70	59	220	140	500	226	1800	317	20000	377
75	63	230	144	550	234	1900	320	30000	379
80	66	240	148	600	242	2000	322	40000	380
85	70	250	152	650	248	2200	327	50000	381
90	73	260	155	700	254	2400	331	75000	382
95	76	270	159	750	260	2600	335	100000	384

Notes: N is populations size. S is sample size.

Source: Krejcie & Morgan (1970)

Appendix B: Survey Questionnaire



UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF ACCOUNTANCY AND MANAGEMENT
BACHELOR OF INTERNATIONAL BUSINESS (HONS)

Title of Research:

**Triggers of Malaysian Consumers' Impulse Purchase
During Live Streaming**

Dear respondent,

I am a final year student from Universiti Tunku Abdul Rahman (UTAR) who pursuing degree in Bachelor of International Business (HONOURS). Currently, I am conducting a survey entitled "Triggers of Malaysian Consumers' Impulse Purchase During Live Streaming". The objective of this research is to identify the factors that trigger consumer to purchase impulsively during live streaming. I am inviting you to participant in this research by completing the surveys.

Your participant in this research project is completely voluntary. There are no known risks to participation beyond those encountered in everyday life. Your response will be kept strictly **PRIVATE** and **CONFIDENTIAL**. All information will be protected and used solely for academic research purpose. This questionnaire would take approximately **FIVE (5) to TEN (10) minutes** to complete. Your contribution of effort and time taken to this work are highly appreciated.

Thank you for your valuable time and participation.

Sincerely,

Haw Mei Kei

(19UKB03291)

Personal Data Protection Notice

Please be informed that in accordance with Personal Data Protection Act 2010 (“PDPA”) which came into force on 15 November 2013, Universiti Tunku Abdul Rahman (“UTAR”) is hereby bound to make notice and require consent in relation to collection, recording, storage, usage and retention of personal information.

1. Personal data refers to any information which may directly or indirectly identify a person which could include sensitive personal data and expression of opinion. Among others it includes:

- a) Name
- b) Identity card
- c) Place of Birth
- d) Address
- e) Education History
- f) Employment History
- g) Medical History
- h) Blood type
- i) Race
- j) Religion
- k) Photo
- l) Personal Information and Associated Research Data

2. The purposes for which your personal data may be used are inclusive but not limited to:

- a) For assessment of any application to UTAR
- b) For processing any benefits and services
- c) For communication purposes
- d) For advertorial and news
- e) For general administration and record purposes
- f) For enhancing the value of education
- g) For educational and related purposes consequential to UTAR
- h) For replying any responds to complaints and enquiries
- i) For the purpose of our corporate governance
- j) For the purposes of conducting research/ collaboration

3. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws. _

4. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required,

5. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required,

Consent

6. By submitting or providing your personal data to UTAR, you had consented and agreed for your personal data to be used in accordance to the terms and conditions in the Notice and our relevant policy.

7. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfill our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes related to the purpose. _

Acknowledgment of Notice

() I have been notified and that I hereby understood, consented and agreed per UTAR above notice.

() I disagree, my personal data will not be processed.

SECTION A: SCREENING

Instruction: Please complete the following question by tick (✓) ONE for the relevant option.

NOTE: Live streaming is a live video of messages being transmitted or received in real time, it can take place on social media (i.e., Facebook, Instagram, TikTok, YouTube and etc.) and e-commerce platform (i.e., Taobao, Shopee, Lazada and etc.). Also, it has now become an effective communication tool for marketers to sell and promote their products and services.



Do you have any prior e-commerce or social media live streaming purchasing experience?

- () Yes. Please proceed to section B.
- () No. Thank you, please return the questionnaire, we appreciate your participant.

SECTION B: DEMOGRAPHIC PROFILE

Instruction: Please complete the following question by tick (✓) ONE for the relevant option.

1. Nationality

- () Malaysian
- () Non-Malaysian

2. Gender

- () Male
- () Female

3. Age

- () Below 18 years old
- () 18 – 25 years old
- () 26 – 33 years old
- () 34 – 41 years old
- () 42 – 49 years old
- () Above 49 years old

4. Ethnicity

- () Malay
- () Chinese
- () Indian
- () Others

5. Highest Education Level

- () Primary/Secondary/STPM/ A-level/ Foundation
- () Certification/ Diploma/ Advanced diploma
- () Bachelors Degree
- () Masters & PhD

6. Occupation

- Student
- Housewife
- Employed
- Self-employed
- Unemployed
- Retired

7. Individual Monthly Income Level

- Below RM 2,000
- RM 2,000 – RM 4,000
- RM 4,001 – RM 6,000
- Above RM 6,000

SECTION C: GENERAL QUESTION

Instruction: Please complete the following question with only one tick (✓) for the best answer that represent you.

1. How often do you perform live shopping?

- Several times a day
- Once a day
- Once a week
- Once a month
- Occasionally

2. Which social media or e-commerce platforms do you typically use to live shopping?

- Facebook
- Instagram
- Taobao
- Shopee
- Lazada
- Others

3. What kind of products do you usually search for during live shopping?

- Fashion products (i.e., clothing, shoes, bags, jewelry, etc.)
- Beauty products (i.e., cosmetics, skin care, etc.)
- Food and Beverages
- Electronic and Gadget (i.e., smart appliances)
- Furniture

4. How much do you spend on average during live shopping each month?

- () Below RM 100
- () RM 100 – RM 150
- () RM 151 – RM 200
- () Above RM 200

SECTION D: FACTORS

Instruction: In this section, respondent has to identify the factor that triggers you to purchase impulsively during live streaming. Respondent required to indicate the extent to which they agreed or disagreed with each statement using 5-point Likert scale. Please select the answer that you think is the most relevant to you.

1 - Strongly Disagree; 2 - Disagree; 3 - Neutral; 4 - Agree; 5 - Strongly Agree

Impulse Purchase

	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	When the item I want to buy is limited has a time limit, it makes me want to own it impulsively.	1	2	3	4	5
2.	When the item I want to buy is limited, I want to urge to buy impulsively.	1	2	3	4	5
3.	The atmosphere of being strongly introduced by the online streamer will increase my desire to buy immediately.	1	2	3	4	5
4.	While many consumers expressed their willingness to buy, I would prefer to buy it quickly.	1	2	3	4	5
5.	Promotions in live stream shopping make me want to buy items instantly.	1	2	3	4	5

Factor 1: Price Discount

	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	The price discount in the livestreaming attracted my attention.	1	2	3	4	5
2.	I was tempted by the low price of products in livestreaming.	1	2	3	4	5
3.	When I saw a product on sale in the livestreaming, I got the desire to buy it.	1	2	3	4	5
4.	The stronger the discount, the easier it is to make me want to buy.	1	2	3	4	5

Factor 2: Visual Appeal

	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Streamers make a clear presentation of the products for sale.	1	2	3	4	5
2.	The way the streamers present the product is very attractive.	1	2	3	4	5
3.	The overall visual effect of the live streaming room is very good.	1	2	3	4	5
4.	I like the overall layout of the live streaming room.	1	2	3	4	5

Factor 3: Interactivity

	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	I can communicate directly with the online streamer.	1	2	3	4	5
2.	I can communicate directly with other participants.	1	2	3	4	5
3.	I can interact with others by leaving a message.	1	2	3	4	5
4.	It makes me feel engaged while reading other's responses.	1	2	3	4	5

Factor 4: Perceived Enjoyment

	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Shopping with live streaming commerce was exciting.	1	2	3	4	5
2.	Shopping with live streaming commerce was enjoyable.	1	2	3	4	5
3.	Shopping with live streaming commerce was interesting.	1	2	3	4	5
4.	I found my visit to live streaming commerce was fun.	1	2	3	4	5
5.	Shopping with live streaming commerce was fun for its own sake.	1	2	3	4	5

Appendix C: Ethical Clearance Form



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Re: U/SERC/34/2023

31 January 2023

Dr Yeong Wai Mun
Head, Department of International Business
Faculty of Accountancy and Management
Universiti Tunku Abdul Rahman
Jalan Sungai Long
Bandar Sungai Long
43000 Kajang, Selangor

Dear Dr Yeong,

Ethical Approval For Research Project/Protocol

We refer to your application for ethical approval for your students' research project from Bachelor of International Business (Honours) programme enrolled in course UKMZ3016. We are pleased to inform you that the application has been approved under Expedited Review.

The details of the research projects are as follows:

No.	Research Title	Student's Name	Supervisor's Name	Approval Validity
1.	To Buy or Not To Buy: Critical Factors of C2C Business in Internet and Social Commerce	Koh Kaa Ven	Mr Khairul Anuar Bin Rusli	31 January 2023 – 30 January 2024
2.	Technology at the Dining Table: Ordering Through Digital Menu	Chong Wil Jin	Dr Tiong Kui Ming	
3.	The Influence of Electronic Word of Mouth (EWOM) on Purchase Intention of Technological Gadgets	Tiew Keh Yeng		
4.	Factors Affecting Customer Satisfaction of Food Delivery Application (FDA)	Koo Zi Yang		
5.	Factors Influencing Consumers' Trust Towards Organic Food Labels in Selangor	Wong Kar Yi	Dr Teddy Lian Kok Fei	
6.	Factors Driving Players' In-game Purchase Intentions for Online Games in Klang Valley	Tan Zeng Zhan	Dr Ooi Bee Chen	
7.	Factors Influencing Consumers' Purchase Intention Toward the Product with Eco-friendly Packaging in Malaysia	Chin Yen Chi		
8.	Triggers of Malaysian Consumers' Impulse Purchase During Live Streaming	Haw Mei Kei	Dr Yeong Wai Mun	
9.	Impacts of Social Media Advertisement on Consumer Purchasing Behavior Among Generation Z	Khor Xin Tian		
10.	Factors Affecting the Rate of Employee Retention in Service Industry	Lim Ke Yee	Mr Kho Guan Khai	
11.	Factors Influencing on Purchase Intention of Green Products Among Generation Z: A Study of Malaysian Consumers	Cheng Yi Yang	Ms Chin Wai Yin	
12.	Factors Influencing University Students Eating Habits and How Eating Habits Affect Their Consumption of Organic Foods	Ng Poh Yi	Dr Eaw Hooi Cheng	

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Website: www.utar.edu.my



Triggers of Malaysian Consumer's Impulse Purchase During Live Streaming

No.	Research Title	Student's Name	Supervisor's Name	Approval Validity
13.	Impact of Luxury Brands Towards Generation Z Purchase Behaviour	Tan Yi Rhu	Dr Sia Bee Chuan	31 January 2023 – 30 January 2024
14.	The Effect of Celebrity Endorsement on Creating Brand Loyalty Among Korean Skincare Brands	Lee Siew Ling		
15.	Factors Influencing Career Preferences Among Generation Z in Malaysia	Tan Wen Sheng	Ms Faridah Hanum Binti Amran	
16.	The Factors Affecting Consumer Awareness Towards Healthy Food Products in Klang Valley Area	Tan Jun Yan		
17.	The Influence of Salary and Benefits, Work Environment and Job Security on Career Decision Making	Sum Kok Jun	Pn Linda Azlinda Binti Sahlan	
18.	Social Media in Tourism: Determinants of Visit Intention	Khoo Boon Onn	Dr Tang Kin Leong	
19.	Building Loyalty Through Customer Satisfaction: Costa Coffee Self Service Vending Machine	Lim Zhi Qian	Dr Seah Choon Sen	
20.	A Study of the Impact of Influencer Marketing on Social Media in Cosmetic Industry	Stephnie Chon Zee Ting	Ms Rae Hooi	
21.	A Study of The Relationship Between Brand Equity and Consumer Purchase Intention on Branded Shoes	Mah Yun Xiu	Dr Claudia Lau Say Min	
22.	“Era with War of Talent”: Impact of HRM Practices on Employee Retention Among Malaysian SMEs	Ooi Joe Yee	Ms Cheah Lee Fong	
23.	Social Media Users' Perceptions Towards Gambling Advertisement on Social Media in Malaysia	Foong Tze Xuan	Dr Farah Waheeda Binti Jalaludin	
24.	Factor Affecting User Acceptance on Near Field Communication (NFC) Payment in Malaysia	Ng Hao Yan	Ms Low Suet Cheng	
25.	Investigation on Work-Life Balance: Hybrid Working Mode Affects Employee Productivity in Klang Valley	Leong Sook Yan	Ms Logeswary a/p Maheswaran	
26.	Investigating the Acceptance of Applying Artificial Intelligence's Chatbot Technology Among Higher Education Students in Malaysia	Tek Xue Nee	Ms Jayamalathi a/p Jayabalan	
27.	The Effect of Green Working Environment on Employee Performance	Kwek Wen Bing	Dr Chin Hon Choong	
28.	The Empirical Study of Brand Preference of Teenager in Fashion Industry in Malaysia	Chiew Jia Wei	Pn Salizatul Aizah Binti Ibrahim	
29.	Analysis of Financial Behaviour: Inclusion of Knowledge, Satisfaction, Risk-taking and Social Support Among Different Generations in Malaysia	Chong Chun Zhen	Dr Choo Siew Ming	
30.	Firm and Environmental Factors that Affect Employee Performance in MNCs	Lim Sze Huey	Dr Omar Hamdan	
31.	Determinants Influencing Motivation People Travel for Food Among Malaysia	Ho Sze Hui	Ms Lim Yee Wui	
32.	Factors Influencing Muslim Intention Towards Halal Authentic Chinese Hot Pot in Malaysia	Siow Li Ling		
33.	Legal Framework on Poverty Alleviation: Comparative Studies Among Malaysia and United States	Chan Yi Kei	Dr Angelina Anne Fernandez	
34.	Legal Framework on Gender Equality in Workplace: Comparative Study in Malaysia and India	Chin Simone		
35.	The Influence of Cultural Dimensions of Entrepreneurial Intention Among University Students in A Multiracial Country-A Malaysian Perspective	Gloria Prasanna a/p Neelamekan	Ms Zufara Arneeda Binti Zulfakar	
36.	Impact of Digital Advertising on Consumer Purchase Decision of Furniture	Wong Jia Qi	Ms Kalaivani a/p Jayaraman	

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The conduct of this research is subject to the following:

- (1) The participants' informed consent be obtained prior to the commencement of the research;
- (2) Confidentiality of participants' personal data must be maintained; and
- (3) Compliance with procedures set out in related policies of UTAR such as the UTAR Research Ethics and Code of Conduct, Code of Practice for Research Involving Humans and other related policies/guidelines.
- (4) Written consent be obtained from the institution(s)/company(ies) in which the physical or/and online survey will be carried out, prior to the commencement of the research.

Should the students collect personal data of participants in their studies, please have the participants sign the attached Personal Data Protection Statement for records.

Thank you.

Yours sincerely,



Professor Ts Dr Faiz bin Abd Rahman
Chairman
UTAR Scientific and Ethical Review Committee

c.c Dean, Faculty of Accountancy and Management
 Director, Institute of Postgraduate Studies and Research

Appendix D: Pilot Test

Scale: Price Discount

Case Processing Summary

		N	%
Cases	Valid	35	100.0
	Excluded ^a	0	.0
	Total	35	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.912	.913	4

Item Statistics

	Mean	Std. Deviation	N
PD1	4.09	1.011	35
PD2	3.91	.919	35
PD3	3.71	.893	35
PD4	4.03	.923	35

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
PD1	11.66	6.055	.816	.779	.882
PD2	11.83	6.323	.859	.804	.866
PD3	12.03	6.734	.777	.634	.894
PD4	11.71	6.681	.755	.640	.902

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
15.74	11.138	3.337	4

Scale: Visual Appeal

Case Processing Summary

		N	%
Cases	Valid	35	100.0
	Excluded ^a	0	.0
	Total	35	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.877	.881	4

Item Statistics

	Mean	Std. Deviation	N
VA1	3.69	1.105	35
VA2	3.60	1.063	35
VA3	3.54	.817	35
VA4	3.49	.981	35

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
VA1	10.63	6.182	.770	.675	.830
VA2	10.71	6.504	.738	.637	.842
VA3	10.77	7.652	.733	.649	.850
VA4	10.83	6.911	.729	.628	.845

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
14.31	11.634	3.411	4

Scale: Interactivity

Case Processing Summary

		N	%
Cases	Valid	35	100.0
	Excluded ^a	0	.0
	Total	35	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.893	.897	4

Item Statistics

	Mean	Std. Deviation	N
IN1	3.34	1.162	35
IN2	3.09	1.121	35
IN3	3.54	.919	35
IN4	3.63	1.003	35

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
IN1	10.26	7.491	.730	.564	.878
IN2	10.51	7.434	.784	.623	.855
IN3	10.06	8.526	.767	.668	.865
IN4	9.97	7.970	.796	.695	.851

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
13.60	13.482	3.672	4

Scale: Perceived Enjoyment

Case Processing Summary

		N	%
Cases	Valid	35	100.0
	Excluded ^a	0	.0
	Total	35	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.908	.909	5

Item Statistics

	Mean	Std. Deviation	N
PE1	3.54	.980	35
PE2	3.71	.893	35
PE3	3.66	.906	35
PE4	3.54	1.010	35
PE5	3.69	1.051	35

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
PE1	14.60	11.541	.703	.756	.901
PE2	14.43	11.782	.751	.776	.891
PE3	14.49	11.492	.793	.716	.883
PE4	14.60	10.718	.824	.837	.875
PE5	14.46	10.726	.778	.779	.886

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
18.14	17.185	4.145	5

Scale: Impulse Purchase

Case Processing Summary

		N	%
Cases	Valid	35	100.0
	Excluded ^a	0	.0
	Total	35	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.748	.739	5

Item Statistics

	Mean	Std. Deviation	N
IP1	3.54	1.010	35
IP2	3.34	1.136	35
IP3	3.43	.948	35
IP4	3.34	1.110	35
IP5	3.91	.951	35

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
IP1	14.03	8.205	.706	.630	.630
IP2	14.23	7.417	.744	.664	.604
IP3	14.14	10.420	.325	.304	.764
IP4	14.23	8.652	.525	.401	.699
IP5	13.66	10.585	.294	.240	.774

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
17.57	13.311	3.648	5

Appendix E: Internal Reliability Test

Scale: Price Discount

Case Processing Summary

		N	%
Cases	Valid	394	100.0
	Excluded ^a	0	.0
	Total	394	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.757	4

Item Statistics

	Mean	Std. Deviation	N
PD1	4.44	.668	394
PD2	4.36	.694	394
PD3	4.37	.810	394
PD4	4.61	.695	394

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PD1	13.34	3.145	.500	.727
PD2	13.42	2.972	.553	.700
PD3	13.41	2.660	.553	.705
PD4	13.18	2.842	.619	.665

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
17.78	4.777	2.186	4

Scale: Visual Appeal

Case Processing Summary

		N	%
Cases	Valid	394	100.0
	Excluded ^a	0	.0
	Total	394	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.813	4

Item Statistics

	Mean	Std. Deviation	N
VA1	4.10	.732	394
VA2	4.08	.726	394
VA3	4.08	.763	394
VA4	4.10	.798	394

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
VA1	12.26	3.703	.572	.793
VA2	12.27	3.567	.639	.763
VA3	12.27	3.406	.661	.751
VA4	12.26	3.301	.659	.753

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
16.35	5.847	2.418	4

Scale: Interactivity

Case Processing Summary

		N	%
Cases	Valid	394	100.0
	Excluded ^a	0	.0
	Total	394	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.791	4

Item Statistics

	Mean	Std. Deviation	N
IN1	4.13	.801	394
IN2	4.12	.849	394
IN3	4.32	.841	394
IN4	4.23	.793	394

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
IN1	12.66	4.020	.615	.733
IN2	12.68	3.806	.636	.721
IN3	12.48	3.981	.580	.750
IN4	12.57	4.159	.571	.754

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
16.80	6.634	2.576	4

Scale: Perceived Enjoyment

Case Processing Summary

		N	%
Cases	Valid	394	100.0
	Excluded ^a	0	.0
	Total	394	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.811	5

Item Statistics

	Mean	Std. Deviation	N
PE1	4.21	.721	394
PE2	4.33	.751	394
PE3	4.38	.721	394
PE4	4.28	.742	394
PE5	4.26	.731	394

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PE1	17.25	5.208	.584	.778
PE2	17.13	5.023	.613	.769
PE3	17.09	5.193	.589	.777
PE4	17.18	5.096	.598	.774
PE5	17.21	5.115	.604	.772

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.47	7.649	2.766	5

Scale: Impulse Purchase

Case Processing Summary

		N	%
Cases	Valid	394	100.0
	Excluded ^a	0	.0
	Total	394	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.804	5

Item Statistics

	Mean	Std. Deviation	N
IP1	4.12	.787	394
IP2	4.06	.769	394
IP3	4.10	.871	394
IP4	4.08	.866	394
IP5	4.43	.811	394

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
IP1	16.67	6.375	.623	.757
IP2	16.73	6.474	.614	.760
IP3	16.69	6.053	.621	.757
IP4	16.71	6.319	.552	.779
IP5	16.36	6.567	.541	.781

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.79	9.471	3.077	5

Appendix F: Regression Analysis for Predicting Perceived Enjoyment

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Mean_IN, Mean_VA ^b	.	Enter

a. Dependent Variable: Mean_PE

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.697 ^a	.486	.483	.39768

a. Predictors: (Constant), Mean_IN, Mean_VA

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.408	2	29.204	184.664	.000 ^b
	Residual	61.835	391	.158		
	Total	120.243	393			

a. Dependent Variable: Mean_PE

b. Predictors: (Constant), Mean_IN, Mean_VA

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.427	.153		9.349	.000
	Mean_VA	.269	.040	.294	6.748	.000
	Mean_IN	.421	.037	.490	11.251	.000

Coefficients^a

Model		95.0% Confidence Interval for B	
		Lower Bound	Upper Bound
1	(Constant)	1.127	1.727
	Mean_VA	.191	.347
	Mean_IN	.347	.494

a. Dependent Variable: Mean_PE

Appendix G: Regression Analysis for Predicting Impulse Purchase

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Mean_PD, Mean_PE ^b	.	Enter

a. Dependent Variable: Mean_IP

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.692 ^a	.479	.476	.44540

a. Predictors: (Constant), Mean_PD, Mean_PE

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	71.317	2	35.659	179.748	.000 ^b
	Residual	77.567	391	.198		
	Total	148.884	393			

a. Dependent Variable: Mean_IP

b. Predictors: (Constant), Mean_PD, Mean_PE

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.445	.203		2.190	.029
	Mean_PE	.589	.049	.529	11.908	.000
	Mean_PD	.266	.050	.236	5.316	.000

Coefficients^a

Model		95.0% Confidence Interval for B	
		Lower Bound	Upper Bound
1	(Constant)	.046	.844
	Mean_PE	.492	.686
	Mean_PD	.168	.365

a. Dependent Variable: Mean_IP

Appendix H: Mediation Analysis of Perceived Enjoyment between Visual Appeal and Impulse Purchase

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 beta *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
 Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 4
 Y : Mean_IP
 X : Mean_VA
 M : Mean_PE

Sample
 Size: 394

OUTCOME VARIABLE:
 Mean_PE

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	.5650	.3193	.2088	183.8544	1.0000	392.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	2.1798	.1576	13.8334	.0000	1.8700	2.4896
Mean_VA	.5170	.0381	13.5593	.0000	.4420	.5920

Standardized coefficients

	coeff
Mean_VA	.5650

OUTCOME VARIABLE:
 Mean_IP

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	.7148	.5110	.1862	204.2978	2.0000	391.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	.5155	.1815	2.8402	.0047	.1587	.8724
Mean_VA	.3257	.0436	7.4624	.0000	.2399	.4115
Mean_PE	.5381	.0477	11.2829	.0000	.4444	.6319

Standardized coefficients

coeff
 Mean_VA .3199
 Mean_PE .4836

***** TOTAL EFFECT MODEL *****

OUTCOME VARIABLE:

Mean_IP

Model Summary

R	R-sq	MSE	F	df1	df2	p
.5931	.3518	.2462	212.7443	1.0000	392.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	1.6886	.1711	9.8690	.0000	1.3522	2.0249
Mean_VA	.6039	.0414	14.5858	.0000	.5225	.6853

Standardized coefficients

coeff
 Mean_VA .5931

***** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y *****

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_cs
.6039	.0414	14.5858	.0000	.5225	.6853	.5931

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_cs
.3257	.0436	7.4624	.0000	.2399	.4115	.3199

Indirect effect(s) of X on Y:

Effect	BootSE	BootLLCI	BootULCI
Mean_PE	.2782	.0418	.1981 .3605

Completely standardized indirect effect(s) of X on Y:

Effect	BootSE	BootLLCI	BootULCI
Mean_PE	.2733	.0396	.1978 .3518

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:

95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

5000

----- END MATRIX -----

Appendix I: Mediation Analysis of Perceived Enjoyment between Interactivity and Impulse Purchase

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 beta *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
 Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 4
 Y : Mean_IP
 X : Mean_IN
 M : Mean_PE

Sample
 Size: 394

OUTCOME VARIABLE:
 Mean_PE

Model Summary

R	R-sq	MSE	F	df1	df2	p
.6526	.4259	.1761	290.7517	1.0000	392.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	1.9390	.1397	13.8818	.0000	1.6644	2.2137
Mean_IN	.5606	.0329	17.0514	.0000	.4959	.6252

OUTCOME VARIABLE:
 Mean_IP

Model Summary

R	R-sq	MSE	F	df1	df2	p
.6966	.4853	.1960	184.3111	2.0000	391.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	.7354	.1800	4.0865	.0001	.3816	1.0893
Mean_IN	.2644	.0458	5.7755	.0000	.1744	.3543
Mean_PE	.5384	.0533	10.1052	.0000	.4337	.6432

***** TOTAL EFFECT MODEL *****

OUTCOME VARIABLE:
 Mean_IP

Model Summary

R	R-sq	MSE	F	df1	df2	p
.5923	.3508	.2466	211.8596	1.0000	392.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	1.7795	.1653	10.7669	.0000	1.4545	2.1044
Mean_IN	.5662	.0389	14.5554	.0000	.4897	.6427

***** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y *****

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI
.5662	.0389	14.5554	.0000	.4897	.6427

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
.2644	.0458	5.7755	.0000	.1744	.3543

Indirect effect(s) of X on Y:

Effect	BootSE	BootLLCI	BootULCI
Mean_PE	.3018	.0480	.2096 .4000

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:

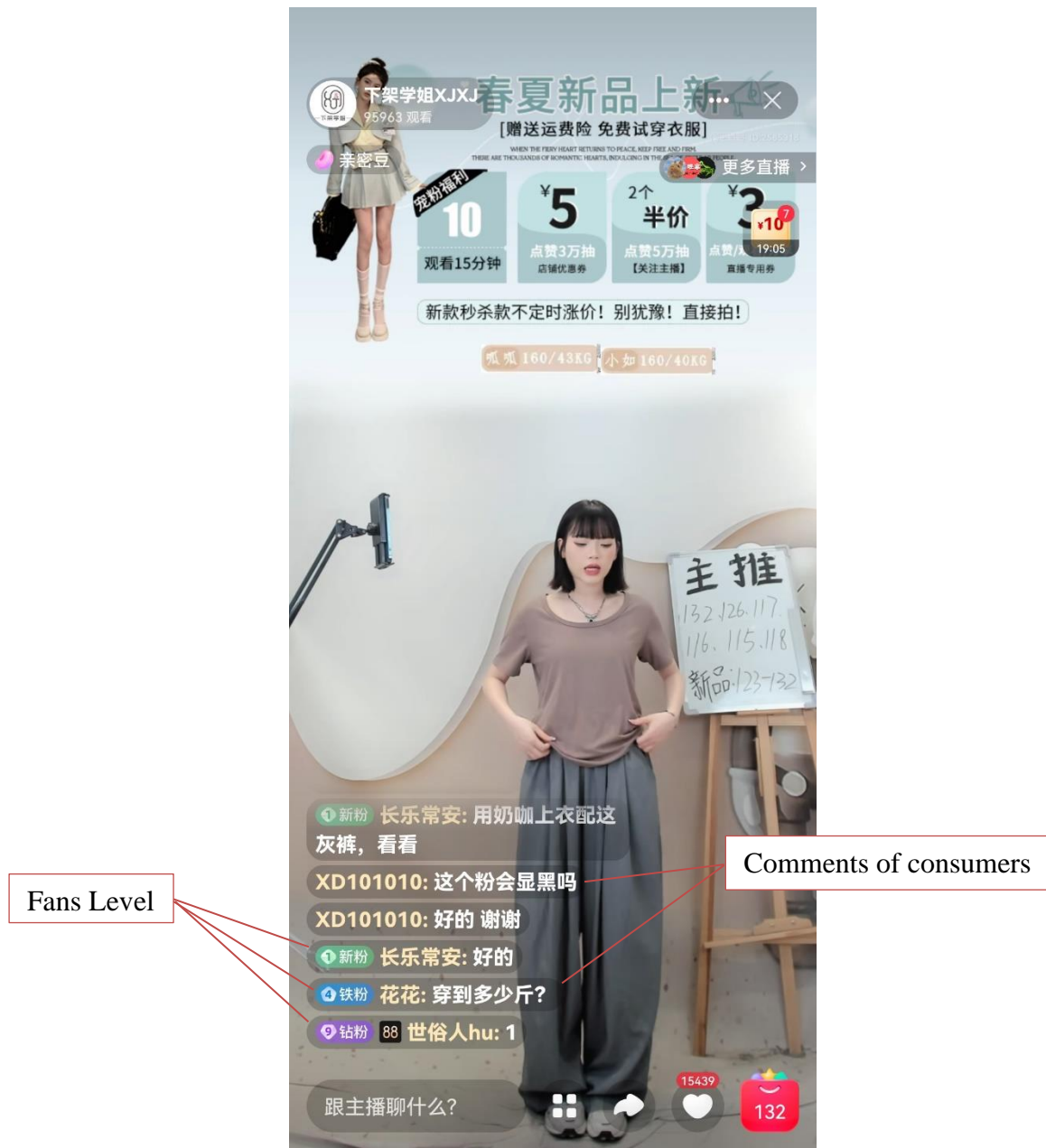
95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

5000

----- END MATRIX -----

Appendix J: Taobao's Fans Level System



The fans level system on Taobao Live consists of five levels, ranging from Level 1 to Level 5. Customers can level up by completing certain tasks, such as following a merchant's store or making purchases during a live stream. As customers level up, they unlock various perks and benefits, such as access to exclusive promotions, early access to new products, and discounts on purchases.