THE IMPULSIVENESS OF GEN Z BUYERS IN TIKTOK LIVE: A STUDY OF THE COMPETITIVE AROUSAL MODEL

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BY

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DECLARATION

I hereby declare that:

(1) This undergraduate FYP is the end result of my own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.

(2) No portion of this FYP has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) Sole contribution has been made by me in completing the FYP.

(4) The word count of this research report is 9317.

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ARO	Arousal
DV	Dependent Variables
Gen Z	Generation Z
IBB	Impulsive Buying Behaviour
IV	Independent Variables
LQS	Limited-Quantity Scarcity
LTS	Limited-Time Scarcity
VSL	Visuality
ENT	Entertainment
SOR	Stimulus-Organism Response
CAM	Competitive Arousal Model

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PREFACE

I am a Year 3 Trimester 3 student who is pursuing a degree at UTAR, currently 22 years old and have became intrigued by the rapid growth of live-stream selling in recent years. Drawing from my personal experiences and those of my friends, I noticed a higher tendency for impulse buying during online shopping compared to traditional in-store purchases. Moreover, the ongoing trend of shifting from physical to online shopping among consumers added to the motivation for my research. Focusing on TikTok Live, a widely used social commerce platform known for live-stream selling, I aimed to investigate the factors influencing consumers' impulsive buying behaviour when joining live-streaming sessions. This research spanned two trimesters, approximately 6 months, as part of my degree program. In this research, I encountered challenges in the process of finding relevant journals and acquiring necessary information as it requires specific skills. Limited access to various journals across diverse academic websites posed an obstacle. In concluding this research, my aspiration is that the insights gained can offer valuable assistance to sellers, providing tactics to attract more customers and enhance their sales strategies.

ABSTRACT

In recent years, live shopping has changed consumers' way of shopping and this trend has absolutely no indication of slowing down. Due to the characteristics of live-streaming shopping, impulsive buying action is obvious when consumers join the sessions. Additionally, according to statistics, Gen Z has performed the most impulse buying. However, studies focusing on Gen Z in such area were minimal. Therefore, the decision of performing impulsive buying among Gen Z is essential for sellers' business growth. The major objective of this paper is to examine the reasons that lead to impulsive buying of Gen Z customers during live stream shopping. This study focuses on sales made during TikTok Live. Four factors were identified through the literature review identified as independent variables, namely, Limited-Quantity Scarcity (LQS), Limited-Time Scarcity (LTS), Visuality (VSL) and Entertainment (ENT) which influence the dependent variable, Impulsive Buying Behaviour (IBB) while their relationship is mediated by Arousal (ARO). This study employs PLS-SEM to analyse the relationship between the variables to assists in making conclusion of the results. From the 430 samples used in this study, it was found that LQS, VSL and ENT have a significant relationship in influencing IBB with full mediation from ARO, while there is no relationship and mediation between LTS, ARO and IBB. The result of this study can be applicable when sellers, especially live-stream sellers are developing a customised strategy that can eventually enhance both sales and profitability. Moreover, the study enables firms to leverage consumer behaviour to gain a strategic edge in the ever-changing environment of the digital world.

CHAPTER 1: INTRODUCTION

1.0   Introduction

This chapter provides the background of this study, problem statement, research questions and objectives along with the significance of this study.

1.1   Research Background

Internet is a very popular network that connects the world together as more than half of the world's population are internet and mobile phone users (McCain, 2023). As of April 2023, it has been reported that users spent approximately six hours online with about two hours spent daily on social media (Meltwater, 2023). Similarly, Malaysians reported a daily average of eight hours spent online and two hours on social media (Howe, 2023).

Generation Z or Gen Z has shown higher daily time spent on the internet and social media as shown in the figures below (Meltwater, 2023). Gen Z comprised of individuals born between 1997 and 2012, aged between 11 to 26 in 2023, constitutes about 32% of the world's population ((Dimock, 2019; Priporas et al., 2020). They are considered as the first generation to grow up totally digital (Reinikainen et al., 2020). Gen Z customers are more likely to be attentive to e-commerce.

Figure 1.1: Daily Time Spent Using the Internet, based on age (Meltwater, 2023)
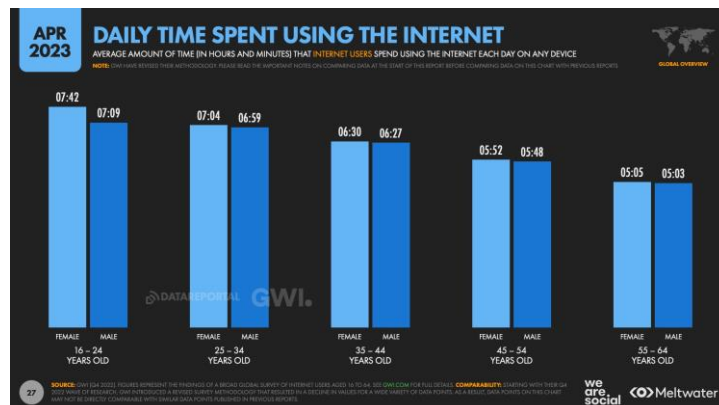
The growth of e-commerce is significant as it is an industry valued at US$9 trillion in 2019 and is expected to continue to grow in the next decade (Grand View Research, 2020). With this, the online marketplace has risen to be the main choice of consumers when dealing with ecommerce market as compared to retailer sites or other direct-to-consumer sites available (Chevalier, 2023). Malaysia's total revenue from online sales for the 3rd quarter of 2021 was around RM279 billion, an increase of 17.1% over the 3rd quarter of 2020 with more Malaysians make purchases online these days (Patel, 2022).

This led to social commerce, a way in which business or individuals utilises their social media account to promote as well as sell any products or services (Ginee, 2021) (Ginee, 2021). This has gone beyond the typical functions of social media, namely search and contact functions. This means users are able to research products, communicate with customer service, and buy products without leaving their selected mobile apps. Well-known social media sites like Facebook, Instagram, Pinterest, and TikTok now provide sellers with specific social commerce capabilities. Users may use these technologies to search and purchase goods without being redirected to a different web page (Zote, 2023).

Social commerce provides a quicker, more seamless and more engaging buying experience, which could be the reason why it is gaining popularity. It is estimated that social commerce will be worth more than US$2.9 trillion globally by 2026 (Stanley, 2022).

Among the various s-commerce platforms, TikTok has grown to be one of the favourites. TikTok initially introduced by, ByteDance Ltd, a Chinese internet technology firm on 20 September 2016, to serve as a social networking site for short music videos (Azmi et al., 2023). Short videos are more suitable to capture the attention of users mainly Gen Zs to boost the platform's exposure (Azman et al., 2023).

Figure 1.2: World's Most Used Social Platforms (Kemp, 2023)
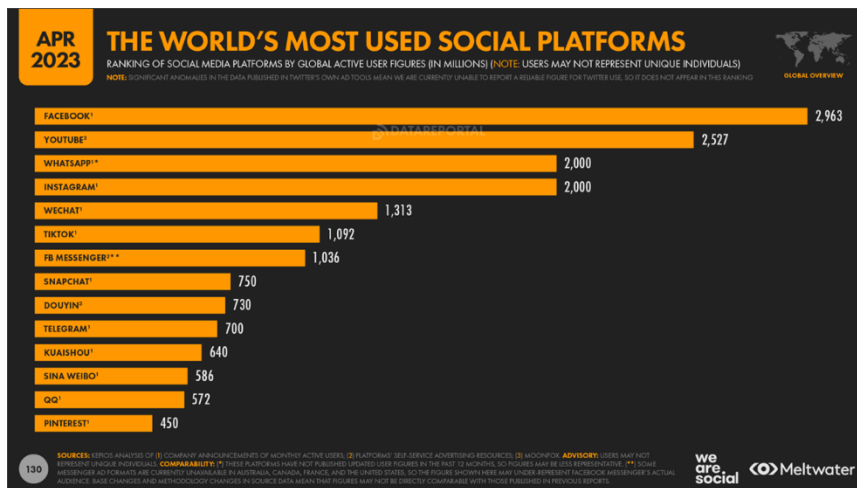
Figure 1.3: Average Time Spent in Social Apps per Month (Kemp, 2023)
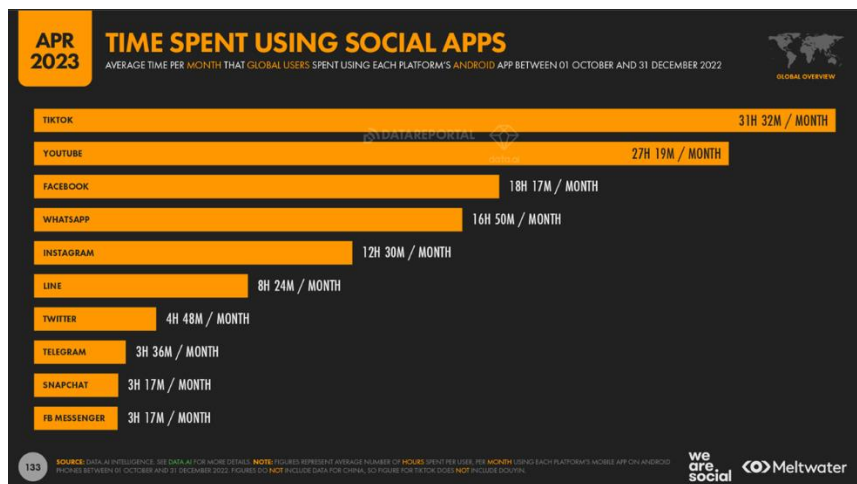
TikTok is the sixth most used social media platform with 1,092 million global active users and 14 million users in Malaysia (Kemp, 2023; Statista Research Department, 2023), of which 35.49% of the viewers and video creators are primarily teens and young adults (Statista Research Department, 2023). Thus, it is reasonable to conclude that the majority of this app's users are younger generations of millennials and Generation Z individuals. Although sixth, TikTok recorded the highest average time spent per month making it understandable that the company continues to promote their app as a prominent s-commerce platform. According to ByteDance statistics, TikTok advertising was able to reach 61.2% of all adults who are 18 years old and above in Malaysia at the beginning of 2022.

TikTok hopes to capitalise on the growing popularity of e-commerce by introducing TikTok shop, an e-commerce solution integrated within the app which enables merchants and creators to showcase and sell products for the TikTok community to discover and purchase directly through a complete in-app experience (TikTok, 2023). On top of that, TikTok Live Shopping is a form of online advertising introduced by TikTok at the end of 2021.

TikTok Live is a real-time interaction tool enabling users of the app to communicate with each other (TikTok, n.d.). It also allows businesses to promote their products instantly via live streaming sessions. TikTok users may purchase items without leaving the app by joining these types of activities making it possible for sellers and customers to converse and interact with each other while also speeding up the buying procedure (Mileva, 2023). TikTok Live is watched by one in every five live streaming users and 62% of that group watches it daily. 50% of TikTok users stated they purchased products after watching TikTok Live selling sessions. The TikTok community has pointed out that participating in TikTok Live allows users to engage with brands. One-third of TikTok Live users even further identified TikTok as their preferred channel for connecting with various product sellers (Honchō, 2022).

As an immediate outcome of the pandemic outbreak, real-time purchasing on social media has grown dramatically. Between March 2020 and July 2021, global live shopping purchases increased by 76%, and the live shopping trend has absolutely no indication of slowing down. The rate of conversion for streaming online are tenfold better than other e-commerce models (Mileva, 2023). At present, 40% of livestream merchants in Malaysia perform their sessions on a daily basis, outnumbering Singapore at merely 17%, Indonesia at 23%, and Vietnam at 27%. Furthermore, 47% of Malaysian live sellers hold each live-streaming session for as much as two hours (Ignatius, 2023).

For customers, this method implies easier shopping, while for vendors, it's a strategy that significantly enhances their visibility on the market (Tan, 2022). People enjoy the engagement of live selling as they have more options when shopping online compared to before (Erdly, 2022).

It is similar to have a reliable friend walk through the clutter of numerous options and advise, "You must try this." due to the participatory aspect of live selling, it is ideal for nearly any sort of products, including jewellery, skincare, luggage, and so on.

The greatest consumer demographic in live shopping is Gen Z and millennials, with 63% of 18 years old to 34 years old routinely watching live streaming (Lin et al., 2023). Materialism characteristic is more common in this age group as they have high demands for quick responses and immediate assistance, and they appreciate brands' ability to communicate with them via social media (Canh et al., 2022).

1.2   Problem Statement

With the widespread use of the s-commerce platforms, recommendations for products may be easily generated through the social media apps with advertisements showcasing products or promotions. These strategies aim to entice users into engaging in unplanned browsing (Dawson & Kim, 2009), for instance, the 'For You' page in short video applications in which all videos shown are through big data analysis of user preferences.

Such unplanned bevahiour leads to impulse purchases (Verhagen & Van Dolen, 2011). The term "impulse buying" refers to a purchase conduct that was not planned in advance, compelling, as well as hedonically complicated (Stern, 1962). A study from researchers said that the new habit of shopping online is more favourable to impulse purchases than physical retail stores because the online shopping feature helps customers to eliminate limitations such as inaccessible store locations, restricted working hours, and social anxiety from salesperson and other customers that they may encounter while shopping physically (Eroglu et al., 2001). Online impulsive shopping has become a trend under the phenomenal expansion of e-commerce. It is estimated that around $4 billion is spent impulsively each year (Liao & Wang, 2009), demonstrating that the economic relevance of impulsive purchasing is widely documented (Badgaiyan et al., 2016).

From the market research made by CreditCards.com, 84% of consumers did impulse buying and it is believed that 40% of the total online consumer spending is attributed to online impulse purchasing (Chan et al., 2017). Online shopping offers a more conducive environment for impulsive buying compared to brick-and-mortar stores (Abdelsalam et al., 2020). Consumers often exhibit a propensity for impulsive buying, driven by the attractiveness of a product. This propensity increases even more on an online platform, where emotions play a crucial role in the online shopping environment (Verhagen & Van Dolen, 2011).

Moreover, online platforms offer numerous benefits through internet marketing features, including enhanced interactivity that enables sellers to communicate more effectively with buyers. Additionally, the intelligence of the internet allows for personalised interaction by tailoring information to each user (Vynogradova et al., 2020). Impulse purchases may be advantageous for businesses as it helps them to implement suitable strategies such as up-selling and cross-selling. This involves recommending upgrades or similar items to customers based on their first purchase (Dawson & Kim, 2009). Hence, it becomes crucial to understand the variables that influence impulsive buying behaviour in the online context (Dawson & Kim, 2009).

Gen Z will make up 40% of the globe's consumers. TikTok's popularity among young people today has surged, influencing Gen Z's purchasing attitude toward products (Ngangom, 2020). It is believed that two in every five young customers makes frequent impulsive purchases. Younger customers are more likely to buy on impulse for a variety of motives, such as recommendations from their social media networks or convenient payment methods. The percentage of impulsive buyers among different generations is 41% of Gen Z, 34% of millennials, and 32% of Gen X (Djafarova and Bowes, 2021). According to GWI survey, Gen Z and millennials make impulsive decisions during online shopping every two to three weeks. The figure increases to 48% among TikTok everyday users (RetailME Bureau, 2023). With this, it becomes apparent to focus impulse purchase studies on Gen Z buyers.

1.3   Research Objectives

The aim is to study about the various factors that affects Gen Z impulsiveness in purchasing through TikTok Live in Malaysia which includes limited time and quantity scarcity, visuality and entertainment with arousal serving as a mediator with the following specific objectives:

1.   To identify the relationship between Limited Quantity Scarcity and Arousal of Gen Z buyers during TikTok Live.
2.   To identify the relationship between Limited Time Scarcity and Arousal of Gen Z buyers during TikTok Live.
3.   To identify the relationship between Visuality and Arousal of Gen Z buyers during TikTok Live.
4.   To identify the relationship between Entertainment and Arousal of Gen Z buyers during TikTok Live.
5.   To identify the relationship between Arousal and Impulsiveness of Gen Z buyers during TikTok Live.
6.   To identify the mediating effect of Arousal with the relationship between the independent variables and the Impulsiveness of Gen Z buyers during TikTok Live.

1.4   Research Question

The following are the study's research questions:

1.   Does Limited Quantity Scarcity affect Arousal of Gen Z buyers during Tiktok Live?
2.   Does Limited Time Scarcity affect Arousal of Gen Z buyers during Tiktok Live?
3.   Does Visuality affect Arousal of Gen Z buyers during Tiktok Live?
4.   Does Entertainment affect Arousal of Gen Z buyers during Tiktok Live?
5.   Does Arousal affect Impulsiveness of Gen Z buyers during Tiktok Live?
6.   Does Arousal serve as a mediator for the independent variables and the Impulsiveness of Gen Z buyers during Tiktok Live?

1.5 Significance of Study

TikTok Live shopping offers a more engaging online purchasing experience. Rather than one-way delivery of messages from a brand to customers like recorded videos, live events facilitate a clear dialogue. Shoppers may connect in real-time to give their input on products, and businesses can reply instantly throughout the entire live broadcast. This results in a more intimate encounter between brands and their customers, which enhances brand loyalty (Productsup, n.d.).

Since the beginning of the Covid-19 pandemic, the habit of shopping on live streaming has been developed and live sales have become a new fad, a fad that is not limited to China but has advanced to influence consumer behaviour worldwide, including TikTok users in Malaysia. This study will therefore analyse this consumer behaviour of impulsive buying.

By understanding the factors that influence impulsiveness of buyers, sellers and social media platforms can understanding the types of live streaming characteristics or features that will influence consumers intention to buy and improve their likelihood of making unplanned purchases. Thus, this study can also help brands and sellers learn what attracts customers and motivates them to buy products during live shopping, and brick-and-mortar shop owners may consider adopting live streaming as one of their marketing and selling channels in order to increase sales.

1.6 Chapter Layout

This study is divided into five chapters with Chapter 1 providing the introduction, Chapter 2 presenting literature review and Chapter 3 explaining the research methodology. Furthermore, the results of the data analysis is provided in Chapter 4 with discussions and conclusion laid out in Chapter 5.

CHAPTER 2: LITERATURE REVIEW

2.0   Introduction

The theoretical structures in this chapter are based on an extensive review of underlying theories discussed below. This chapter will start with the definition of both theories and how they demonstrate the relationship between variables. A conceptual framework is created to summarise the literature review and visualise the hypotheses developed.

2.1   Underlying theories

2.1.1 Stimulus-Organism-Response (S-O-R) Model

The S-O-R-model depicts how an organismic component connects stimulus and human behaviour of response and action (Buxbaum, 2016). It defines stimulus as some items that impact individual internal states and may be conceptualised as factors that excites the individual. (Eroglu et al., 2001). Stimuli such as the external environment would elicit emotional (organism) and cognitive reactions (response) within the recipient, resulting in a degree of approaching or evading behavioural responses (Mehrabian and Russell, 1974). Arousal, pleasure, and dominance are the three emotional reactions elicited by external stimuli. The term "organism" refers to internal structures and processes that intervene between stimuli from the outside and the final reactions, acts, or responses emitted by the person. The intervening structures and processes include sensory, physiological, emotional, and cognitive activity. (Chang et al., 2011).

The model is widely employed in assessing the impact of shop environment or network features on impulsive buying behaviour. Online shopping characteristics based on the SOR model demonstrated that they substantially affect visual attractiveness and triggered emotional feelings, which in turn influenced customers' impulsive buying behaviour (Liu et al., 2013).

This theory has also been applied to investigate how scarcity on sale and trigger arousal and lead to impulsive buying (Lamis et al., 2022). Thus, this research utilises this model to examine the influence of s-commerce characteristics on impulsive buying behaviour through the mediating role of arousal.

2.1.2 Competitive Arousal Model (CAM)

CAM explains that people feel aroused as a result of circumstances that cause competitive situations, and that aroused sentiments impact behaviours and decisions (Ku et al., 2005). Competitive arousal is defined as an aroused state, a state of being motivated or enthusiastic caused by situations of competitiveness (Ku et al., 2005; Guo et al., 2017). Competitive arousal in customers can be described as competitive emotions and ideas experienced when purchasing, as well as the belief that one is competing with other buyers to achieve the goal of successful purchases (Broeder and Wentink, 2022).

Competition is implied through limitation or scarcity which happens when a product is in high demand and there is insufficient supply to meet everyone's needs (Broeder and Wentink, 2022). Obtaining a scarce good or service might be viewed as winning a competition. When scarcity generates competitive arousal, consumers have a greater tendency to make decisions based on heuristics (Nichols 2012). As consumers can be influenced by competitive arousal, it sometimes leads to irrational decisions (Nichols, 2012). Hence, this study used the Competitive Arousal Model (CAM) to investigate the impact of social commerce characteristics on impulsive buying behaviour, with arousal serving as a mediating factor.

2.2 Review of Variables

2.2.1 Dependent Variables (DV): Impulsive Buying Behaviour

When researchers began investigating impulsive buying behaviour (IBB) in 1982, they discovered the behavioural breadth of impulsive buying. Researchers have almost universally agreed that impulsive buying is a spontaneous purchase and it is a hedonic behaviour (Bloch 1995). IBB is an immediate and unexpected purchase without any planning beforehand to buy a particular kind of product or complete a particular shopping (Wells et al., (2011). It is an action that occurs after experiencing a strong desire to buy and appears to be spontaneous and unplanned. Most purchases made by customers are unexpected, impulsive and motivated by a strong desire, emotions of enjoyment, and excitement (Abdelsalam et al., (2020).

This study focuses on behaviours in the online context. IBB was first seen in retail stores (Zhou et al., 2014; Sun & Wu, 2014), but with the entrance of the internet, online impulsive buying emerged (Li et al., 2016). Researchers asserted that the shopping environment online is more attractive to consumers as they do not need to face constraints which include inconvenient shop locations and limited business hours which could entice their shopping decisions and impulsiveness (Liu et al., 2013; Chan et al., 2017). When customers make an impulsive buying decision online, they are generally driven by rapid purchase and easy accessibility of goods in the form of click purchasing and fast delivery (Jeffrey & Hodge, 2007). Few studies have concentrated on the significance of impulsive purchases in online shopping (Floh & Madlberger, 2013; Liu et al., 2013).

2.2.2 Independent Variables (IV)

Based on the SOR theory, this study adopts the two categories of stimuli which are scarcity on sales and sale characteristics (Lamis et. al, 2022).

2.2.2.1 Limited-Quantity Scarcity (LQS)

LQS happens when a promotion is made accessible for only a specific amount of merchandise or certain quantity of units. Every time purchases are made, the number of units still open for purchasing reduces. Customers are unsure whether they will be able to obtain the goods if they return later. This adds to the uncertainties surrounding LQS promotion which makes the recipients feel more "exclusive" upon successful purchases (Aggarwal et al., 2011; Campo et al., 2004; Ku et al., 2012). Scarcity campaigns emphasise on the limited availability of the highlighted products, implying that only few people would be able to successfully purchase the product, promoting competitiveness among customers (Kristofferson et al., 2017).

LQS message can be categorised as either supply or demand LQS (Gierl et al., 2008; Song et al., 2019; Wu & Lee, 2016). The chance for purchasing of a product is restricted in the event of a supply side LQS deal because suppliers limit the product's production numbers. To put it another way, a supply side LQS offering is akin to a limited-edition. On the contrary, the demand side LQS deal refers to the constrained accessibility of a product since the demand for the specific product is exceptionally high. Thus, they revealed that a demand side LQS offering is significantly more successful in encouraging customer appraisal of a product's popularity. This study includes both supply and demand side of LQS.

2.2.2.2 Limited-Time Scarcity (LTS)

LTS happens when promotion or sales are made accessible for a limited time or a particular length of time, with the offer being inaccessible after the specified date has passed. (Gierl et al., 2008; Mou & Shin, 2018).

Instead of competing with other shoppers, LTS requires a buyer to just fulfil the seller's deadline in order to qualify for the offer (Aggarwal et al., 2011; Campo et al., 2004; Ku et al., 2012). In an online marketplace setting, sellers induce individuals to buy products by announcing the precise length of time the promotion last for and consumers who believe "time is money" may grasp an otherwise unobtainable opportunity (Godinho et al., 2016). By doing this, LQS creates time pressure on consumers, influencing their behaviour and the decision-making process (Thomas et al., 2010).

Limited-time announcements have a favourable influence on product attractiveness when the duration of sale is short (Gierl et al., (2008). However, the time constraint should be stated clearly. It is insufficient if it is only written 'temporarily available'. When a time restriction is expressly stated, buyers have limited time to hunt for replacement items or a better bargain, which urged them to buy without proper planning.

2.2.2.3 Visuality (VSL)

Visuality refers to the degree to which consumers are attracted to the content displayed on online shopping platforms (Liu et al, 2019). In a similar vein, it means "a customer's perception of the extent to which visual elements presented on a site induce positive affection" (Chopdar et al., 2022) and "the degree to which a person believes

that the site is aesthetically pleasing to the eye" (Van Der Heijden, 2003).

Visuality improves a platform's visual impact by displaying visual components (Weinberg & Gottwald, 1982). Colours, photos, texts, layout, and videos are examples of visual elements that have a major influence on platform attractiveness and aesthetic (Mahapatra, 2017; Van Der Heijden et al., 2003).

There is an assumption that platforms or items that have pleasant appearances tend to produce favourable feelings towards purchase than unpleasant ones in the consumer marketing literature (Bloch 1995). For instance, product's form causes cognitive and emotional psychological reactions, which then influence consumers' behavioural responses (Bloch 1995). In light of such studies and real-world observations, it is plausible to conclude that individuals would correlate the visual appeal of an online shopping platform with positive attitudes. Good visual elements combination may stir up the interest of consumers and provide consumers with a shopping value (Liu et al., 2019).

2.2.2.4 Entertainment (ENT)

The term "entertainment" refers to an online shopping platform that is a means of communication that gives shoppers an entertaining experiences via video, music, graphics, and other elements to boost consumer's joy and satisfaction while shopping and make them enjoy themselves (Eroglu et al., 2003). Online shopping platforms provide a variety of engaging shopping festival events, which include "grabbing red envelopes" during live-streaming sessions (Liu et al, 2019).

Consumer's amusement is promoted when the information exhibited with soundtracks and animation (Liu et al., (2013). The entertainment elements foster customer excitement and concentration when shopping (Liu et al, 2019).

Entertainment has emerged as a key aspect for the acceptance of mobile shopping platform and recurring buying (Lee & Kim, (2019). Thus, incorporating proper entertainment elements in an online shopping platform could prove to be very important in attracting customers in buying products.

2.2.3 Mediating Variables: Arousal (ARO)

Arousal was characterised as a situation that ranged from an emotional low to a high point in great exertion or strong excitation (Duffy, 1962). It is an unspecific part of motivation; fluctuations in arousal serve the purpose of altering consumer's information processing level (Qian, 2010). Feelings of arousal ought to account merely for intensity and not quality.

Emotions can be divided into three aspects: pleasure, arousal, and dominance, which proved that environmental factors might cause individual emotional responses, whereby supporting to tendencies or avoiding behaviours (Mehrabian & Russell 1974). Arousal is one of the primary reactions that consumers have when triggered by external factors in consumption behaviour (Zhang et al., 2014). The external arousal stimulus raises the degree of excitement. It requires a while for excitement to entirely subside. Even if the stimulus is eliminated later, the excitement created by arousal continues (Cantor et al., 1974). Hence, arousal refers to the degree of excitement felt by the receiver in the presence of an external stimulus.

2.3   Research Framework

2.3.1 Theoretical Framework

The SOR model and CAM theory is adapted for this study based on the framework created by Lamis et al. (2022) as depicted in Figure 2.1.

Figure 2.1: Theoretical Framework
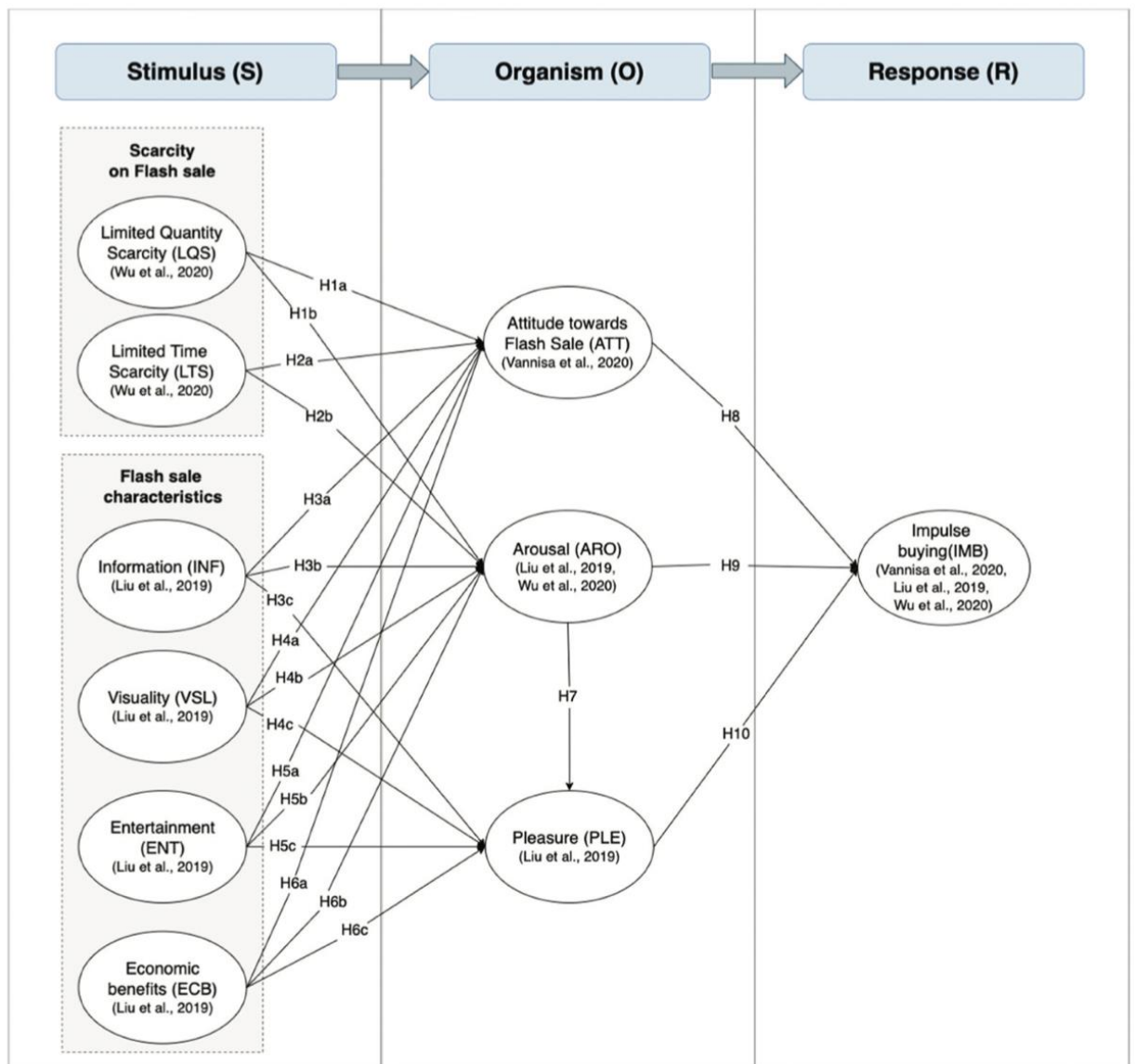
Source: Adapted from Lamis et al., 2022

2.3.2 Conceptual Framework

This study employs the framework as per Figure 2.2 to study the relationships between the variables further discussed in section 2.4.

Figure 2.2: Conceptual Framework
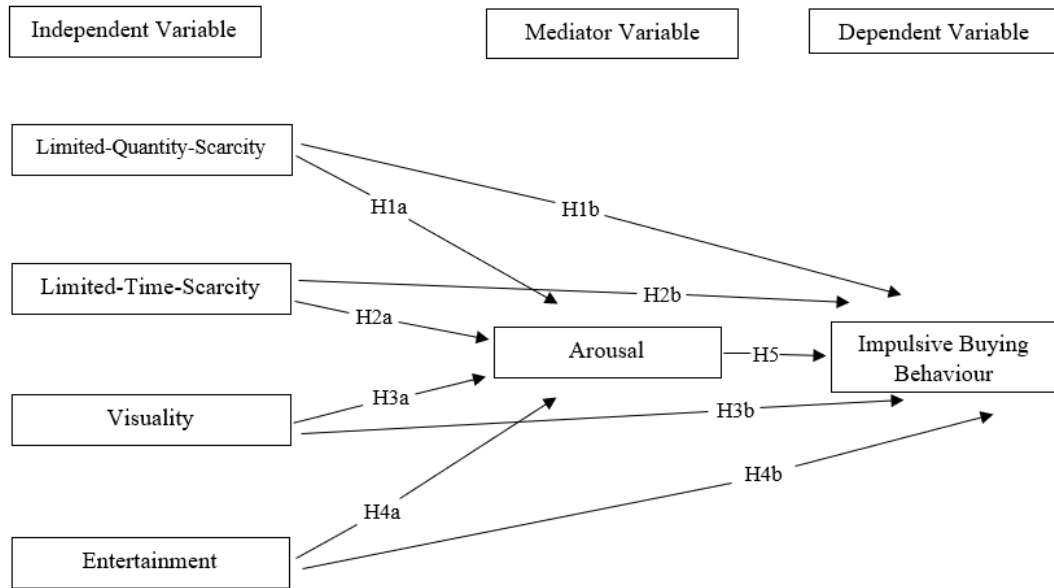
Source: Developed for this study

2.4 Hypotheses Development

2.4.1 LQS, ARO and IBB

As LQS offer a limited number of quantity, it suggests the employment of a first-come-first-serve approach which generates a perception of competitiveness (Barone & Roy, 2010). This induces a sense of rivalry among consumers, resulting in heightened arousal (Wu et al, 2021). Previous research has shown that there is a positive correlation between the perceived degree of rivalry and the degree of arousal (Ku et al., 2005).

Consumers' perception of limited product availability has a significant impact on how quickly they react (Orangzab et al., (2021). This suggests that LQS has a significant impact on online impulsive purchase behaviour

(Wu et al., 2021; Lee et al., 2015). Previous studies have also investigated the relationship between the LQS and its impact on a consumer's perceived arousal, therefore influencing their impulsive buying, where ARO serves as a mediator (Wu et al., 2021; Guo et al., 2017).

Thus, this study hypothesised that:

H1a: **There is a significant relationship between LQS and ARO of Gen Z buyers during TikTok Live sales.**

H1b: **There is a significant relationship between LQS and IBB of Gen Z buyers during TikTok Live sales.**

H1c: **There is a mediating effect of ARO in the relationship between LQS and IBB of Gen Z buyers during TikTok Live sales.**

2.4.2   LTS, ARO and IBB

LTS serves a significant strategic function in generating a sense of excitement (Aggarwal et al., 2011). The research on activation and attention shows excitement is caused when input is limited and unexpected (Pribram & McGuinness, 1975). With LTS, buyers reduce their capacity for information processing, instead, make choices based on a constrained set of factors (Godinho et al., 2016). This shows that LTS can significantly affect IBB (Lee et al., 2015; Akram et a., 2018).

Furthermore, studies have shown that consumers act more impulsively when arousal is caused by LTS (Guo et al., 2017). The phenomenon of auction fever in ascending auctions, with a particular focus on the influence of time constraint is seen to involve arousal (Adam et al., 2015). The impact of LTS on arousal have been previously investigated in online purchase (Guo et al., 2017).

The effects of LTS messaging on impulsive purchases have been previously studied and the presence of time constraints scarcity has the potential to

influence online impulsive buying action in social commerce environment (Lee et al., 2015; Akram et al., 2018).

Hence, it is possible that:

H2a: **There is a significant relationship between LTS and ARO of Gen Z buyers during TikTok Live sales.**

H2b: **There is a significant relationship between LTS and IBB of Gen Z buyers during TikTok Live sales.**

H2c: **There is a mediating effect of ARO in the relationship between LTS and IBB of Gen Z buyers during TikTok Live sales.**

2.4.3 VSL, ARO and IBB

Previous studies have explored the correlation between visual stimuli and emotional arousal in the context of flash sales along with impact of visual elements presented on a mobile shopping platform on customer arousal (Lamis et al., 2022; Liu et al., 2019). Attraction, website colours, and multimedia features arrangements are seen as very important in making customers feel pleasure (Loureiro, 2015; Shchiglik and Barnes, 2004; Van Schaik and Ling, 2005). Visuality enables customers to engage with a website in a particular manner, since it has the capability to captivate their attention (Han & Mills, 2006). The significant role of visuality in influencing both emotional and cognitive states is expected. Consumers were much more excited when there is a presence of visual stimuli. This study demonstrates that the inclusion of visual elements, such as colour, imagery, and design, in a mobile shopping platform can heightened arousal in consumers (Liu et al., 2019).

Organic characteristics and perceived visual attractions of sales have significance in influencing impulsive buying behaviour among customers (Parboteeah et al., 2009). The influence of visual appeal have been

previously studied on impulsive behaviour within the context of mobile purchasing apps (Chopdar & Balakrishnan, 2020). Visual attractiveness of products or displays might elicit customers making unexpected purchases stimulates impulsive purchasing behaviour among customers even in mobile platforms (Law et al., 2012; Liu et al., 2013; Zheng et al., 2019). A highly appealing app design is likely to cultivate impulsive behaviour among shoppers in mobile shopping.

Therefore, this study is to test if:

H3a: **There is a significant relationship between VSL and ARO of Gen Z buyers during TikTok Live sales.**

H3b: **There is a significant relationship between VSL and IBB of Gen Z buyers during TikTok Live sales.**

H3c: **There is a mediating effect of ARO in the relationship between VSL and IBB of Gen Z buyers during TikTok Live sales.**

2.4.3 ENT, ARO and IBB

Mobile app interface design which includes music, and animation have the potential to provide entertainment to customers and leads to an important connection between entertainment and arousal in affecting impulsive buying (Liu & Lu, 2017). Marketing strategies such as "A shake, a red envelope" and similar techniques enable shoppers to have fun while shopping, enhance their emotional involvement in the process, and evoke positive feelings like arousal (Liu et al, 2019). The experience of positive emotional stimulation can result in impulsive buying. The correlation between the level of entertainment provided by a shopping platform and its ability to elicit good feelings in customers, subsequently leading to impulsive buying, is clear (Richard, 2005; Liu et. al, 2013).

The influence of entertainment on customer arousal was shown to be notable with the latter playing a mediating role in entertainment and IBB (Liu et al., 2019; Liu & Lu, 2017).

The influence of the media format of music on online impulsive purchase behaviour is apparent as majority of consumers express a desire to fulfill their hedonic requirements when engaging in shopping activities (Adelaar et al., 2003; Liu & Lu, 2017). Hence, the entertainment provided by shopping applications has a significant influence on the consumer's intention to engage in impulsive purchasing.

Consequently, this study wants to know if:

H4a: **There is a significant relationship between ENT and ARO of Gen Z buyers during TikTok Live sales.**

H4b: **There is a significant relationship between ENT and IBB of Gen Z buyers during TikTok Live sales.**

H4c: **There is a mediating effect of ARO in the relationship between ENT and IBB of Gen Z buyers during TikTok Live sales.**

2.4.3 ARO and IBB

As IBB is deemed as an act of making rapid purchases driven by strong and abrupt emotional responses, studies have investigated the association between arousal and impulsive buying throughout the process of online shopping (Liu et al., 2019; Lamis et al., 2022). Customers will have an emotional cognitive response prior to buying something on impulse and such reaction shows up in feelings, in particular excitement (Parboteeah et al., 2009; Metya et. al, 2000). Individuals with heightened levels of arousal spent less time thinking about decisions, looked at less information regarding decisions, and relied on simpler decision methods, such as impulse purchasing (Mano, 1992).

Consumers who experience arousal will exhibit increased attention towards the live streaming content and are more likely to engage with the products and services suggested by the broadcaster (Sun et al., 2019). The enhancement of the exploration experience may increase the possibility of IBB within the context of live broadcasting (Li et al., 2022).

Thus, this study formulated that:

H5: **There is a significant relationship between ARO and IBB of Gen Z buyers during TikTok Live sales.**

CHAPTER 3: RESEARCH METHODOLOGY

3.0   Introduction

This chapter will clarify the definition of research methods from the standpoint of research design and the methodologies used for data collecting.

3.1   Research Design

This study employs quantitative research, thus collection of numerical data, which will afterwards be analysed to discuss the findings (Albers, 2017). This method incorporates the process of measuring and acknowledges the feasibility of quantifying the phenomena being investigated (Watson, 2015), Measurement are used to analyse data, such as relationships and trends, in order to validate the accuracy of the conducted measurements.

3.2   Sampling Design

3.2.1 Target Population

The target population refers to the specific group that will be selected from the larger population to serve as a representative sample (Shukla, 2020). The population of this study are Malaysians who falls under Gen Z demographic which are those born between 1997 – 2012, aged 11 to 26 years as of 2023 (Dimock, 2019).

3.2.2 Sampling Frame

The sampling frame refers to a list of all potential participants that may be selected from the population (Kölln et al., 2018). The sample of this study are Gen Z who are TikTok users and have made purchases through TikTok Live sales.

3.2.3 Sampling Technique

Convenience sampling technique was used in this research to obtain responses from respondents that are most accessible (Majid, 2018). This method is a type of non-probability sampling method as no scientific base is used in selecting the samples (Shukla, 2020). TikTok users were contacted and invited to take part in the survey that lasted for four weeks.

3.2.4 Sample Size

This study refers to the Krejcie and Morgan method of determining sample size where 384 samples were deemed sufficient for an estimated population of more than 1 million (Krejcie & Morgan, 1970). After data cleaning and editing, 430 samples were used in this study.

3.3 Data Collection Method

Primary data refers to the first data acquired directly by researchers to aid in the resolution of a certain issue (Kabir, 2016). This research uses primary data as it can be reported to be more reliable and objective as they are new data that have never been published (Muhammad & Kabir, 2018).

3.4   Research instruments

Data were collected through a self-administered questionnaire prepared in English and distributed through several online platforms such as Whatsapp, Facebook and Instagram.

3.4.1 Questionnaire design

The questionnaire is divided into three sections starting with guidelines to enhance respondents' understanding of this questionnaire. Section 1 notifies users on the personal data protection information and filter respondents to ensure they are from the sampling frame. Section 2 collects demographic information for all respondents on gender and age as well as their behaviour and experience with TikTok. Section 3 collects responses in relation to the variables of this study using a six-point Likert Scale from (1) Strongly Disagree to (6) Strongly Agree. The six-point scale was adopted to increase precisions of responses (Nemoto & Beglar, 2014). The questionnaire is attached in Appendix 1.

3.4.2 Construct Measurement

The items of measurement for this study were adapted from previous studies as depicted in Table 3.1. A full set of the items can be found in the Appendix 2 attached.

Table 3.1: Construct Measurement

Construct	No of Items	Sources
LQS	7	Lamis et al., 2022; Akram et al., 2018
LTS	7	Lamis et al., 2022; Chen et al., 2021
VSL	6	Lamis et al., 2022; Chen et al., 2021
ENT	6	Lamis et al., 2022; Casaló et al., 2021
ARO	6	Lamis et al., 2022; Chen et al., 2021; Sudhir & Unnithan, 2019
IBB	6	Lamis et al., 2022; Lee & Chen, 2021

Source: Developed for this study

3.4.3 Validation of construct

A pilot study was conducted with 30 samples to test the validity and reliability of the construct. Cronbach's Alpha is used to measure the level to which the set of instruments are able to measure a single unidimensional construct (Ursachi et al., 2015). The widely acceptable values of alpha range from 0.70 to 0.95 indicating sufficient number of questions or interrelatedness between items of the construct (Tavakol & Dennick, 2011).

As per Table 3.2, all construct of this study were between the acceptable value indicating the construct is reliable.

Table 3.2: Result of Pilot Study

Construct	No of items	Cronbach alpha
LQS	7	0.804
LTS	7	0.897
VSL	6	0.918
ENT	6	0.900
ARO	6	0.856
IBB	6	0.930

Source: Developed for this study

3.5 Data Analysis Tool

This research used several analysis techniques with SPSS Statistics and PLS-SEM.

3.5.1 SPSS

The descriptive analysis is analysed with SPSS (Statistical Package for Social Science) Statistics to provide the frequency and percentage of demographic data of all respondents such as gender, age and TikTok usage.

3.5.2 PLS-SEM

The study also used Smart PLS 4 software to conduct an analysis of the gathered data using the Partial Least Squares Structural Equation Modelling (PLS SEM) technique. The PLS-SEM method is able to estimate complicated models including several constructs, indicator variables, and structural paths, while also avoiding the imposition of distributional assumptions on the data. PLS SEM is a predictive approach of SEM as it places particular emphasis on estimating predictions in statistical models that have been designed to give causal explanations (Hair et al., 2019). Moreover, PLS-SEM has gained acceptance as a research analysis method across several social science fields and has been often used to investigate causal relationships between variables in research pertaining to experience and satisfaction (Hair et al., 2019). The first stage in the analysis of PLS-SEM results involves the examination of the measurement models. Consequently, an assessment of reflective measurement models will be conducted. The evaluation of the PLS-SEM findings will be examined by analysing the structural model after achieving acceptable results in the measurement model assessment (Hair et al., 2019).

CHAPTER 4: DATA ANALYSIS

4.0   Introduction

This chapter provides the results of data collected based on the methods explained in Chapter 3.

A total of 558 responses were collected. Firstly, data were inspected using several filters to ensure quality. Only Malaysians who have made purchases through TikTok live who were born between 1997 and 2005, that is, between the ages of 18 and 26, were included. After data cleaning and editing, 430 samples were used.

4.1   Descriptive Analysis

As per Table 4.1, there were 308 female and 122 male respondents accounting for 72% and 28% respectively. The highest age group of respondents are 18, 20 and 21 years old with 74 (17.2%), 76 (17.7%) and 78 (18.1%) respondents respectively.
The behaviour of users towards TikTok is reported in Table 4.2. On the average daily usage of TikTok, with the highest frequency indicated that most respondents use TikTok three to five hours daily (201 respondents, 46.7%).
The highest frequency of monthly purchases through TikTok Live was 187 respondents (43.5%) who makes purchases once a week or approximately 4 times a month.

Respondents were asked to rank the TikTok amongst other online shopping platform such as Shopee; Instagram shop; Shein; Lazada; Facebook Marketplace from most favourite (1) to least favourite (6) and 235 respondents ranked TikTok as their most favourite and only one respondent chose TikTok as least favourite platform.

Table 4.1: Demographic Profile of Respondents

Demographic Profile		Frequency	Percentage
Gender	Female	308	71.6
	Male	122	28.4
Age	18	74	17.2
	19	52	12.1
	20	76	17.7
	21	78	18.1
	22	38	8.8
	23	43	10.0
	24	25	5.8
	25	34	7.9
	26	10	2.3

Source: Developed for this study

Table 4.2: Respondents Behaviour towards TikTok

Demographic Behaviour		Frequency	Percentage
Daily usage	Less than 1 hour	11	2.6
	1 to 2 hours	81	18.8
	3 to 5 hours	201	46.7
	More than 5 hours	137	31.9
Frequency of Monthly TikTok Live Purchases	Only when needed	42	9.8
	Once a month	72	16.7
	Once a week (4 times a month)	187	43.5
	Twice a week (8 times a month)	87	20.2
	More than 8 times a month	42	9.8
Rank of TikTok	1	235	54.6
	2	105	24.4
	3	48	11.2
	4	32	7.4
	5	9	2.1
	6	1	0.3

Source: Developed for this study

4.2   Reflective Measurement Model

Table 4.3: Reflective Measurement Model of IV

Construct		Outer loadings	CR	AVE
LQS	1	0.613	0.709	0.265
	2	0.533		
	3	0.544		
	4	0.380		
	5	0.371		
	6	0.500		
	7	0.604		
LTS	1	0.569	0.774	0.331
	2	0.505		
	3	0.502		
	4	0.551		
	5	0.614		
	6	0.627		
	7	0.641		
VSL	1	0.811	0.911	0.630
	2	0.759		
	3	0.850		
	4	0.833		
	5	0.752		
	6	0.751		
ENT	1	0.482	0.713	0.294
	2	0.483		
	3	0.569		
	4	0.571		
	5	0.533		
	6	0.605		

Source: Developed for this study

Table 4.4: Reflective Measurement Model of Mediator and DV

Construct		Outer loadings	CR	AVE
ARO	1	0.579	0.702	0.288
	2	0.426		
	3	0.429		
	4	0.473		
	5	0.588		
	6	0.679		
IBB	1	0.645	0.864	0.517
	2	0.566		
	3	0.760		
	4	0.775		
	5	0.773		
	6	0.768		

Source: Developed for this study

Examining the outer loadings is the first step in evaluating a reflective measurement model. Loadings greater than 0.6 indicate that the construct offers satisfactory item reliability, which is desirable, as they account for more than half of the indicator's variance (Dash & Paul, 2021; Hair et al., 2019). Based on Table 4.3 and 4.4 few outer loadings were below the 0.6 satisfactory level. However, an outer loading of above 0.5 can be regarded as acceptable and those below 0.5 were removed to improve the reliability and validity of the construct (Chin, 1998). An updated result of the reflective measurement model is shown in Table 4.5 with outer loadings of all items above 0.5 indicating an acceptable item reliability.

Secondly, composite reliability (CR) is used to evaluate the internal consistency reliability. CR within the range of 0.60 to 0.70 are classified as "acceptable in exploratory research," while values ranging from 0.70 to 0.90 are regarded as "satisfactory to good" (Hair et al., 2019). Based on Table 4.5, all CR values of the construct are above 0.70 signalling satisfactory to good internal consistency reliability.

Table 4.5: Updated Reflective Measurement Model

Construct		Outer loadings	CR	AVE
LQS	1	0.663	0.735	0.360
	2	0.647		
	3	0.519		
	6	0.516		
	7	0.637		
LTS	4	0.566	0.774	0.464
	5	0.734		
	6	0.712		
	7	0.700		
VSL	1	0.784	0.915	0.642
	2	0.784		
	3	0.804		
	4	0.812		
	5	0.810		
	6	0.813		
ENT	4	0.603	0.756	0.511
	5	0.797		
	6	0.730		
ARO	1	0.623	0.776	0.539
	5	0.747		
	6	0.820		
IBB	1	0.643	0.863	0.516
	2	0.535		
	3	0.758		
	4	0.775		
	5	0.775		
	6	0.788		

Source: Developed for this study

The third step is to assess the convergent validity. Convergent validity refers to the degree to which a construct effectively explains the variance of its items measured through average variance extracted (AVE). A satisfactory AVE is 0.50 or more, suggesting that the construct can explain at least 50% of the variance of its items (Hair et al., 2019). For this study, from Table 4.5, AVE values are between 0.360 to 0.642. Most of the AVE values are 0.50 or higher, while some are lower than 0.5. Although lower than normal acceptable values, it can still be considered acceptable because CR value is higher than 0.6 (Fornell & Larcker, 1981). Thus, the convergent validity of the construct is achieved.

The final step involves evaluating discriminant validity, which assesses the distinctiveness of a construct by distinguishing it from other constructs. This assessment was conducted using the Heterotrait-Monotrait (HTMT) Ratio. Discriminant validity issues arise when the HTMT values are high (Hair et al., 2019). Henseler et al. (2015) suggest using an appropriate threshold value of 0.90 to assess the results. Values as per Table 4.6 are after the removal of items and all values except for LQS and LTS are below 0.90 indicating that there are no discriminant validity issues.

Table 4.6: HTMT Ratio

Discriminant Validity					
	LQS	LTS	VSL	ENT	ARO	IBB
LQS						
LTS	0.929					
VSL	0.195	0.110				
ENT	0.464	0.637	0.363			
ARO	0.502	0.340	0.288	0.637		
IBB	0.392	0.260	0.205	0.271	0.471	

Source: Developed for this study

Figure 4.1: Results of Reflective Measurement Model
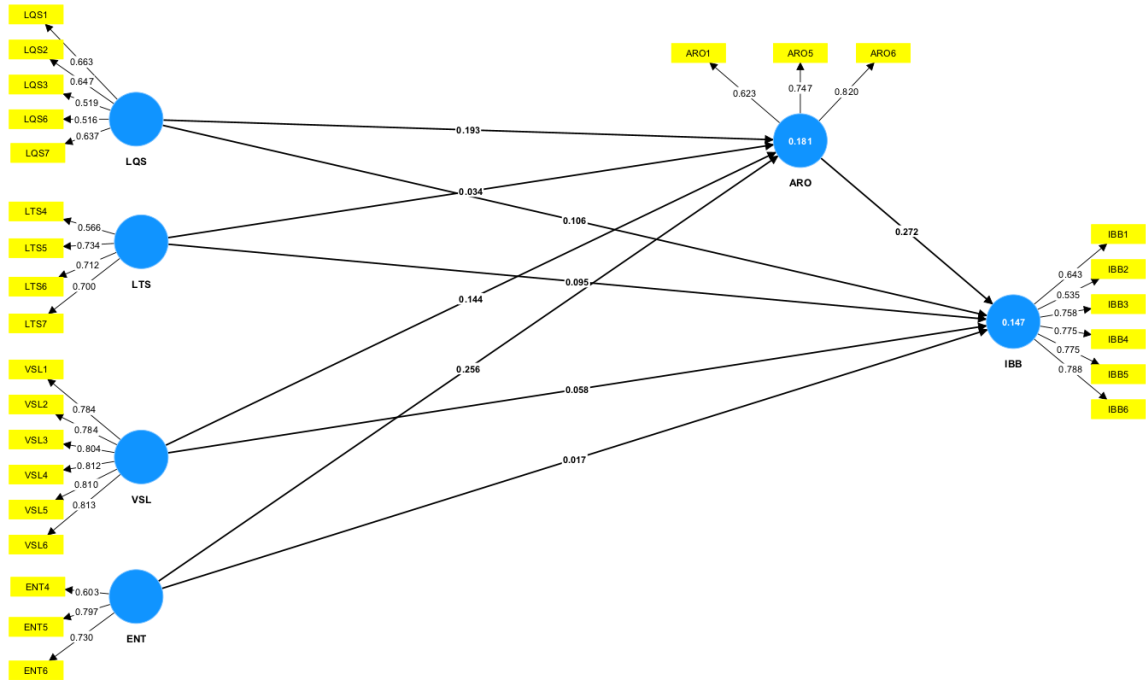
4.3   Structural Model

As the measurement model provides satisfactory results, this study moved on to the structural model starting with the determination of the coefficient using adjusted R^2. The value of adjusted R^2 as per Table 4.7 are 0.173 and 0.137, the model demonstrates a degree of adequacy and substantial fit in explaining the variables with an R^2 value of at least 0.1 to be acceptable in the condition that some or most of the predictors or explanatory variables are statistically significant (Ozili, 2022).

Final assessment was on the hypothesized significances of the relationships between the variables. Based on Table 4.8, H1a, H3a, and H4a, were supported with a p-value of < 0.05 signifying that LQS, VSL, and ENT have a significant relationship with ARO. On the other hand, H2a is rejected with a p-value > 0.05 indicating that LTS does not have a significant relationship with ARO. All the H1b to H4b were rejected signifying that there are no significant relationship between LQS, LTS, VSL, ENT and IBB.

H5 was supported with p-value of 0.000 indicating that there is a significant relationship between ARO and IBB. This is useful for the test of mediating effect of ARO on the relationship of the IV with the DV.

LQS, VSL and ENT have positive significant relationships with ARO and ARO also have positive significant relationship with IBB, however as the direct relationship of these three IVs with IBB are not significant, there is only indirect relationship signifying that full mediation effect supporting H1c, H3c and H4c (Hair et. al., 2022). As for LTS as there the relationship with ARO is not significant and the direct relationship with IBB also not significant, thus there is no mediating effect of ARO, rejecting H2c (Hair et. al., 2022).

Table 4.7: R-square

	R^2	Adjusted R^2
ARO	0.181	0.173
IBB	0.147	0.137

Source: Developed for this study

Table 4.8: Summary of Structural Model

| Hypotheses		Standard Beta (β)	t-value	p-value	Results
H1a	LQS → ARO	0.193	2.147	0.032	Accepted
H1b	LQS → IBB	0.106	1.116	0.264	Rejected
H2a	LTS → ARO	0.034	0.428	0.668	Rejected
H2b	LTS → IBB	0.095	1.221	0.222	Rejected
H3a	VSL → ARO	0.144	2.771	0.006	Accepted
H3b	VSL → IBB	0.058	0.932	0.352	Rejected
H4a	ENT → ARO	0.256	4.062	0.000	Accepted
H4b	ENT → IBB	0.017	0.237	0.813	Rejected
H5	ARO →IBB	0.272	4.099	0.000	Accepted

Source: Developed for this study

Table 4.9: Summary of Mediating Effect

Hypotheses		Relationship with ARO	Direct Relationship with IBB	Results
H1c	LQS	Significant	Not Significant	Full mediation
H2c	LTS	Not Significant	Not Significant	No mediation
H3c	VSL	Significant	Not Significant	Full mediation
H4c	ENT	Significant	Not Significant	Full mediation

Source: Developed for this study

Figure 4.2: Results of Structural Model
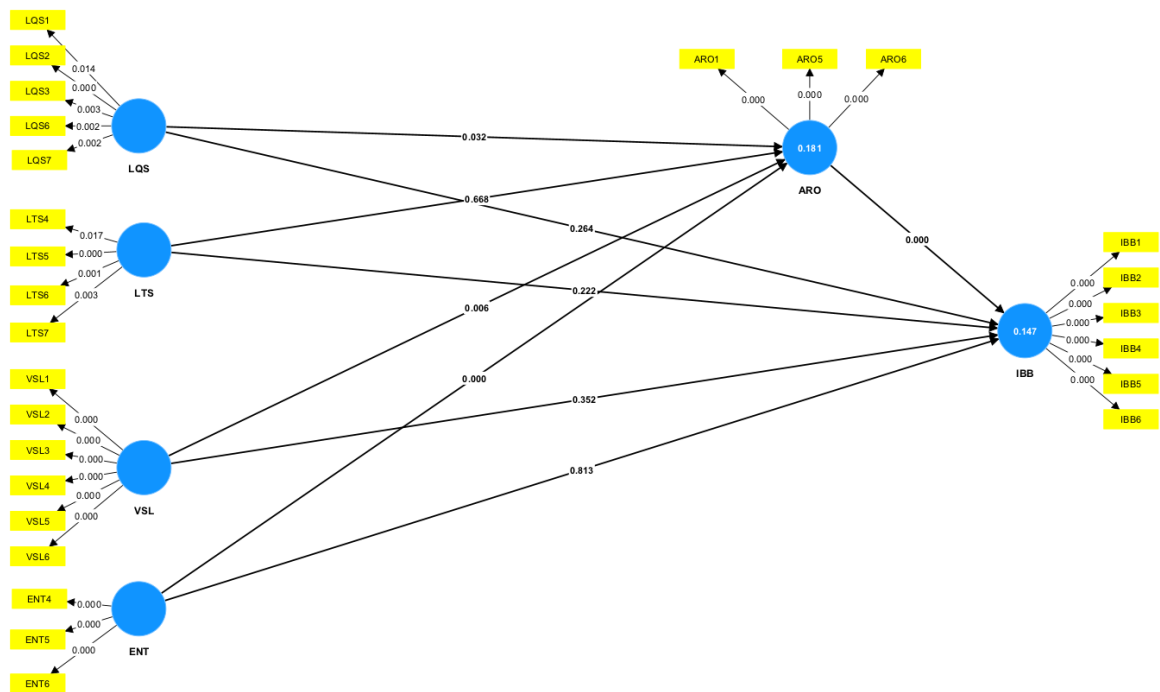
CHAPTER 5: DISCUSSION AND CONCLUSION

5.0   Introduction

This chapter discusses the findings from Chapter 4, implication and limitation of study to conclude and provide recommendation for future research.

5.1   Discussion of Major Findings

The main objective of this study is to examine the relationship between the variables as depicted in the hypotheses developed in Chapter 2 to get a deeper comprehension of the factors that may influence impulsive buying of Gen Z buyers during TikTok Live. The results of the hypothesis testing provide support for H1a, H3a, H4a, H1c, H3c, H4c and H5 and reject H2a, H1b, H2b, H3b, H4b and H2c.

For H1a, LQS has shown a significant relationship with ARO of Gen Z buyers during TikTok Live. This final result parallels with previous studies where it was noted that when consumers experience quantity pressure in retail sales, it is considered to generate a state of increased arousal (Guo et al., 2017). High levels of LQS resulted in greater arousal among consumers compared to a low level of LQS as a significant increase in the level of LQS when the perceived competition of a customer with other rivals grows leading to an increase in arousal (Wu et al., 2021). Therefore, LQS will stimulate ARO of Gen Z buyers.

VSL also proved to have a significant relationship with ARO of Gen Z buyers during TikTok Live, supporting H3a similar with previous studies (Loureiro et al., 2019; Liu et al., 2019). VSL is greatly influenced by a platform's aesthetic appeal and organisation of multimedia elements, these factors play a crucial role in influencing customer emotions (Loureiro et al., 2019). The visual aspects are often the first to be during a live-streaming session. These elements are quickly remembered and can significantly impact a shopper's reputation towards the platform (Filieri et al., 2017).

H4a was also supported, proving that ENT has a significant relationship with ARO of Gen Z buyers during TikTok Live. This is consistent with earlier research where it was found that customers' excitement was increased by the leisure activities offered on shopping platforms (Wu et al., 2017). Consumers' arousal levels were found to be significantly higher after engaging in entertaining activities (Liu et al., 2019). Consumers' pleasant emotions may be amplified by making shopping platforms more entertaining.

On the other hand, it was found that LTS does not have a significant relationship with ARO of Gen Z buyers during TikTok Live, rejecting H2a consistent with previous research (Broeder & Wentink, 2022). LTS does not directly trigger consumer's arousal emotion. This phenomenon might be attributed to consumers' awareness that live-streaming sessions have a limited duration, which diminishes their response to LQS related promotion. Additionally, the cultural dimension of femininity and masculinity plays a crucial role in shaping the perception of a message and influencing customer responses (Chang, 2006).

There was also no significance in the direct relationship between all the IVs and IBB rejecting H1b, H2b, H3b and H4. This is consistent with previous studies where it was found that although these IVs have an influence on arousal which subsequently influence IBB, the direct relationship found to be insignificant (Chopdar et al., 2022).

ARO has a full mediation effect between LQS, VSL, ENT, and IBB supporting H1c, H3c and H4c. This result matches with previous studies in which they have proven that all the IV mentioned above will trigger consumers' emotions that lead to consumers performing impulse buying (Wu et al., 2021; Liu et al., 2019 and Lamis et al., 2022). However, ARO has no mediating effect between LTS and IBB, rejecting H2c. Previous research has also found that there is a negative effect between LTS and ARO as when LTS increases, the degree of ARO decreases, and LTS has no direct relationship with consumer's buying intention (Broeder & Wentink, 2022).

5.2   Implications of Study

Comprehending the factors that impact consumers' impulsive behaviour is vital for businesses. The objective of this research is to give important insights into these aspects, providing a view that may have a significant influence on business strategies. Equipped with this information, industry players may concentrate on certain stimuli, allowing them to create more efficient marketing plans. This not only amplifies their involvement during TikTok Live but also helps in the general increase in sales and enhancement of companies. Sellers may get advantages by exploring the preferences of customers that motivate impulsive buying behaviours on the platform. By using these observations throughout live-streaming sessions, merchants may develop a customised strategy, eventually enhancing both sales and profitability. Essentially, this study enables firms to leverage consumer behaviour to gain a strategic edge in the ever-changing environment of TikTok Live

5.3   Limitations of Study

The COVID-19 pandemic has significantly influenced consumer behaviour worldwide, leading to a greater level of caution in purchase decisions. This intensified caution can affect the impulsive behaviour of customers. Therefore, this might potentially influence the way consumers perceive the factors investigated in this research and have an impact on the results of the study.

Furthermore, it should be noted that this research focuses on one specific age group. Thus, attempting to generalise results to the whole consumer population may oversimplify the intricate array of preferences and behaviours shown by different generations since every age group has distinct viewpoints.

On top of that, this study employs only four IVs and 1 mediating variable and as discussed, only three IV proved to be significant. Therefore, there may be limits in reaching a definitive conclusion on this model as other factors may have a greater effect and influence on Gen Z's online impulsive buying behaviour.

5.4   Recommendation for Future Research

To fully comprehend the relationship among numerous variables, arousal, and impulsive purchasing behaviour, future researchers might gather the experiences and perspectives of TikTok Live consumers across diverse nations. A global perspective provides a broad understanding of how cultural and geographical differences might impact customer behaviours in the context of live-stream shopping.

Furthermore, future studies could explore other variables that could entice decisions of buyers such as study on personality based on the Big Five Personality Traits as well as the Experience Economic Theory to have better understanding on consumer behaviours.

Additionally, future studies might employ qualitative research to investigate various variables that could potentially influence the attitudes and purchasing behaviour of TikTok Live consumers. This analysis offers a deeper understanding of how several factors collaborate to influence impulsive purchasing behaviour on TikTok Live.

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APPENDIX 1

Questionnaire of this study:

The Impulsiveness of Gen Z Buyers in TikTok Live. A Study of Competitive Arousal Model.

Dear respondents,

I am Isabel Chu Xin Lyn, a final year undergraduate student from the Faculty of Accountancy and Management (FAM) pursuing Bachelor of International Business (HONS) in Universiti Tunku Abdul Rahman (UTAR).

TikTok Live is a real-time interaction tool enabling consumers and sellers to communicate. It is an e-commerce experience that allows businesses to promote their products instantly via live streaming sessions. Many studies have shown that impulse buying is common on TikTok Live.

I would appreciate if you are able to respond to this survey. The title of this research is "The impulsiveness of buyers in Tiktok Live. A study of competitive arousal model".

The purpose of this research is to examine the factors that lead to impulsive buying of Gen Z in TikTok Live in Malaysia. As factors such as Limited Time Scarcity (LTS), Limited Quantity Scarcity (LQS), Entertainment, and Visuality can affect arousal and the impulsiveness of buyers to purchase during TikTok Live.

Note that all the responses will be kept confidential and also all the data received will be only used for this research only.

If you agree and consent to participate in this survey and data collection, you may proceed to answer. If you do not consent, then you may withdraw from the survey at any point of time.

Thank you for your participation in this survey.

If you have any inquiries or need further clarification, please feel free to contact me through email isabelchu118@1utar.my.
Thank you.

Yours sincerely,
Isabel Chu Xin Lyn
Undergraduate Student
Faculty of Accountancy and Management (FAM)
Universiti Tunku Abdul Rahman (UTAR)

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. UTAR is committed in ensuring the confidentiality, protection, security and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

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.

8. You may access and update your personal data by writing to us at isabelchu118@1utar.my.

1. Acknowledgement of Notice *

Please note that we are **not** collecting your name, identity card, address and other similar sensitive information.

◯ 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

2. Are you a TikTok user? *

◯ Yes

◯ No

3. Are you Malaysian? *

◯ Yes

◯ No

4. Have you ever made purchases during a TikTok live session? *

◯ Yes

◯ No

Demographic information

5. Gender *

( ) Female

( ) Male

6. Age (in 2023) *

[   ]

The value must be a number

7. On average, how frequent do you use TikTok daily? *

( ) Below 1 hour daily

( ) 1 to 2 hours daily

( ) 3 to 5 hours daily

( ) More than 5 hours daily

8. On average, how frequent was your monthly purchases during sales through TikTok Live? *

○ More than 8 times a month

○ Twice a week (about 8 times a month)

○ Once a week (about 4 times a month)

○ Once a month

○ Only when needed

9. Rank the following online shopping platform based on your preferences from most favourite to least favourite *

| Facebook Marketplace |
| Tiktok |
| Instagram shop |
| Shein |
| Shopee |
| Lazada |

TikTok Purchases Behaviour

Please answer the following questions based on the scale of 1 to 6 from (1) Strongly Disagree to (6) Strongly Agree.

10. Limited Quantity Scarcity (LQS) *

	1	2	3	4	5	6
I feel the products and the number of stocks for each product available in Tiktok Live sales are limited	◯	◯	◯	◯	◯	◯
I feel that the products I am interested in TikTok Live sales are usually sold out quickly	◯	◯	◯	◯	◯	◯
I am worried about the limited number of products on TikTok Live sales	◯	◯	◯	◯	◯	◯
I feel that the products I want on TikTok Live sales are often rarely available	◯	◯	◯	◯	◯	◯
I think that the current supply of TikTok Live sales products is small	◯	◯	◯	◯	◯	◯
When I shop in TikTok Live sales, I am concerned about the limited quantity	◯	◯	◯	◯	◯	◯
When I shop in TikTok Live sales, I am anxious about sold out sign	◯	◯	◯	◯	◯	◯

11. Limited Time Scarcity (LTS) *

	1	2	3	4	5	6
I feel the time available for shopping during TikTok Live sales is limited	○	○	○	○	○	○
I realize that the sales during TikTok Live sales do not last long	○	○	○	○	○	○
When I shop on TikTok Live sales, I worry about the remaining time to shop	○	○	○	○	○	○
I feel the duration of TikTok Live sales ends quickly	○	○	○	○	○	○
When I see the product with a TikTok Live sales countdown, I want to buy it aggressively	○	○	○	○	○	○
When I see limited-time discount on TikTok Live sales, I will be attracted to take the initiative to purchase	○	○	○	○	○	○
When I see limited-time discount on TikTok Live sales I'm afraid to miss sales so I will quickly take the initiative to purchase	○	○	○	○	○	○

12. Visuality *

	1	2	3	4	5	6
I find TikTok Live sales visually attractive	○	○	○	○	○	○
I find the way TikTok Live sales displays product information is attractive	○	○	○	○	○	○
I find the overall look and feel of TikTok Live sales are visually appealing	○	○	○	○	○	○
I like the visual appearances of TikTok Live sales	○	○	○	○	○	○
TikTok Live sales shows me plenty of pictures, which are visually pleasing	○	○	○	○	○	○
The colours that are used on TikTok Live sales are attractive	○	○	○	○	○	○

13. Entertainment *

	1	2	3	4	5	6
I find it fun to see products on TikTok Live sales	◯	◯	◯	◯	◯	◯
I find TikTok Live sales entertaining	◯	◯	◯	◯	◯	◯
I find TikTok Live sales exciting	◯	◯	◯	◯	◯	◯
I find TikTok Live sales interesting/attractive	◯	◯	◯	◯	◯	◯
I feel pleased when viewing the contents of TikTok Live sales	◯	◯	◯	◯	◯	◯
I feel joyful when viewing the contents of TikTok Live sales	◯	◯	◯	◯	◯	◯

14. Arousal *

	1	2	3	4	5	6
TikTok Live sales makes me feel stimulated to buy the product	◯	◯	◯	◯	◯	◯
TikTok Live sales makes me feel very excited to buy the product	◯	◯	◯	◯	◯	◯
TikTok Live sales makes me feel aroused to buy the product	◯	◯	◯	◯	◯	◯
TikTok Live sales makes me feel enthusiastic to buy the product	◯	◯	◯	◯	◯	◯
When I was shopping on TikTok Live sales, I felt active	◯	◯	◯	◯	◯	◯
When shopping on TikTok Live sales, I feel alert	◯	◯	◯	◯	◯	◯

15. Impulse Buying *

	1	2	3	4	5	6
I usually buy products on TikTok Live sales spontaneously	◯	◯	◯	◯	◯	◯
The products I bought on TikTok Live sales are mostly unplanned	◯	◯	◯	◯	◯	◯
I bought products on TikTok Live sales that I did not initially want to buy it	◯	◯	◯	◯	◯	◯
I ended up buying the product on TikTok Live sales even though I did not initially intend to buy it	◯	◯	◯	◯	◯	◯
When watching TikTok Live sales, I have a desire to buy items that did not pertain to my original shopping goals	◯	◯	◯	◯	◯	◯
When watching TikTok Live sales, I felt a sudden urge to buy something	◯	◯	◯	◯	◯	◯

APPENDIX 2

Full construct measurement:

Construct	Items	Sources
LQS (7 items)	1. I feel the products and the number of stocks for each product available in Tiktok Live sales are limited 2. I feel that the products I am interested in TikTok Live sales are usually sold out quickly 3. I am worried about the limited number of products on TikTok Live sales 4. I feel that the products I want on TikTok Live sales are often rarely available 5. I think that the current supply of TikTok Live sales products is small 6. When I shop in TikTok Live sales, I am concerned about the limited quantity 7. When I shop in TikTok Live sales, I am anxious about sold out sign	Lamis et al., 2022; Akram et al., 2018
LTS (7 items)	1. I feel the time available for shopping during TikTok Live sales is limited 2. I realize that the sales during TikTok Live sales do not last long 3. When I shop on TikTok Live sales, I worry about the remaining time to shop 4. I feel the duration of TikTok Live sales ends quickly 5. When I see the product with a TikTok Live sales countdown, I want to buy it aggressively 6. When I see limited-time discount on TikTok Live sales, I will be attracted to take the initiative to purchase 7. When I see limited-time discount on TikTok Live sales, I'm afraid to miss sales so I will quickly take the initiative to purchase	Lamis et al., 2022; Chen et al., 2021
VSL (6 items)	1. I find TikTok Live sales visually attractive 2. I find the way TikTok Live sales displays product information is attractive 3. I find the overall look and feel of TikTok Live sales are visually appealing 4. I like the visual appearances of TikTok Live sales 5. TikTok Live sales shows me plenty of pictures, which are visually pleasing 6. The colours that are used on TikTok Live sales are attractive	Lamis et al., 2022; Chen et al., 2021

ENT (6 items)	1. I find it fun to see products on TikTok Live sales 2. I find TikTok Live sales entertaining 3. I find TikTok Live sales exciting 4. I find TikTok Live sales interesting/attractive 5. I feel pleased when viewing the contents of TikTok Live sales 6. I feel joyful when viewing the contents of TikTok Live sales	Lamis et al., 2022; Casaló et al., 2021
ARO (6 items)	1. TikTok Live sales makes me feel stimulated to buy the product 2. TikTok Live sales makes me feel very excited to buy the product 3. TikTok Live sales makes me feel aroused to buy the product 4. TikTok Live sales makes me feel enthusiastic to buy the product 5. When I was shopping on TikTok Live sales, I felt active 6. When shopping on TikTok Live sales, I feel alert	Lamis et al., 2022; Casaló et al., 2021; Sudhir & Unnithan, 2019
IBB (6 items)	1. I usually buy products on TikTok Live sales spontaneously 2. The products I bought on TikTok Live sales are mostly unplanned 3. I bought products on TikTok Live sales that I did not initially want to buy it 4. I ended up buying the product on TikTok Live sales even though I did not initially intend to buy it 5. When watching TikTok Live sales, I have a desire to buy items that did not pertain to my original shopping goals 6. When watching TikTok Live sales, I felt a sudden urge to buy something	Lamis et al., 2022; Lee & Chen, 2021