#### **CHAPTER 2**

#### THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

#### 2.1 LITERATURE REVIEW

#### 2.1.1 Stimulus-Organism-Response (SOR) Theory

The Mehrabian & Russel (1974) study, which offers a theoretical framework for analyzing user behavior, is the foundation of the SOR framework. According to this framework, behavior takes place in a stimuli-rich environment. Mehrabian & Russel claim that the mechanism of SOR occurs when an external *stimulus* from the environment affects the internal psychology of the *organism*, particularly the consumers' cognitive and affective processes, which ultimately lead to an approach-and-avoidance reaction, also referred to as a *response*.

An external or environmental stimulus is something that has an impact on a person's psychological or perceptual state (Fu et al., 2021). Businesses typically employ marketing cues like promotions (Hasim et al., 2018), scarcity (Wu et al., 2021), and pricing (Xu and Huang, 2014) to draw in customers. Before reacting to the external stimuli, individual users also analyze the environmental stimuli and use their emotions and cognition to weigh the relevant information (Sun et al., 2021).

According to Sultan et al. (2021), a "response" is the behavioral intention (to approach or to avoid) that a particular user presents in response to their emotional and cognitive reactions. It is the outcome that every user receives from the organism (Perez-Vega et al., 2021). Jacoby (2002) noted that a user's conduct could appear to be either positive or negative depending on how their perception is influenced by the environment around them.

Based primarily on the live streaming impulsive buying behavior study conducted by Huo et al. (2023), the Stimulus-Organism-Response theory will be used in this study for the following two reasons. First, live streaming impulsive buying has been the subject of prior applications of the SOR theory

(Gao et al., 2022; Lou et al., 2022). The retail environment (Changa et al., 2011), tourism (Ja et al., 2020), smartphone consumer behavior (Tan et al., 2019), atmospheric cues in travel apps (Wu et al., 2021), and mobile social commerce (Liu et al., 2023) are just a few of the industries that have applied the SOR theory. Stated differently, numerous studies have confirmed that SOR theory is applicable to people's comprehension of the complexity of human behavior. Consequently, using the SOR theory gives us a comprehensive method for including several external stimuli that relate to users' impulsive buying behavior on the TikTok live streaming platform.

Second, SOR theory shapes externally driven behaviors that are resembled in the individual's ultimate decisions and behaviors by utilizing external environmental cues to impact internal individual psychological or cognitive processes (Kumar et al., 2021). In other words, this model offers a well-organized viewpoint to comprehend how environmental cues related to live streaming shopping affect the psychological processes of TikTok live shoppers and, in turn, influence their impulsive purchasing behavior. This is significant to the study since it shows how consumers make decisions about their impulsive buying on the TikTok live shopping platform nowadays. To connect the SOR theory element to this study, this research will be focused on social presence and sales promotion as the environmental stimuli (S), flow experience as the organism (O), and consumers' impulsive buying behavior as the response (R), which will be explained in more detail.

#### 2.1.2 Social Presence as Stimulus

Social presence theory was initially introduced by John Short, Ederyn Williams, and Bruce Christie in *The Social Psychology of Telecommunications* (Cui et al., 2013). According to Short et al. (1976), "the degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationships" is the definition of social presence, which is a crucial component of communication. Or in a simpler way, social presence can be seen as how important or how much we value the presence of others in an

interaction, and how important is the result of our relationships with others. Short et al. (1976) also add that social presence influences the degree of intimacy, which is influenced by things like smiling, eye contact, physical distance, and talking about personal matters. Others characterize social presence as being a "real" person, while others characterize it as having a sense of belonging or a connection to other people (Lowenthal & Snelson, 2017).

As time progresses, the notion of social presence has also developed. there are several definitions of social presence developed by other researchers with different constructs. Even so, Short et al. (1976)'s definition of social presence, as the degree to which someone is regarded as "real" in a mediated communication is still deemed as relevant until this day especially for the context of this research. In the past, people view some media, like video, as having a higher level of social presence than others, like audio. The higher the level of social presence perceived of a media, the warmer and more personal it is perceived by people (Short et al., 1976). Bringing this point of view to live streaming context, live streaming was developed in order to give consumers a sense of human interaction and fulfil the needs of social presence. So that even when the interaction between sellers and buyers are mediated through the live streaming, they could still sense each other as being there as a real person. When customers and sellers are in a constant discussion and they could feel each other's presence, it will lead to a gradually built social relations, which what we called as social presence (Ma et al., 2022).

In the traditional e-commerce, sellers and buyers hardly communicate with each other directly. Online shoppers mostly rely on computers for their major means of communication, which reduces their sense of social presence since it eliminates other non-verbal indicators like hearing and touching (Huo et al., 2023). Yet, conversations are now made feasible by internet chat platforms within the live streaming. While shopping, customers can ask questions, share their thoughts about the products on display, and chat with other customers in the comment of the live streaming (Wongkitrungrueng et al.,

2020). Since sellers usually display their pyhsical products while doing a live stream, viewers are able to see the actual form and condition of the product, which enhance their trust in the store.

Additionally, clients also feel appreciated when salespeople mention them in response to their requests and acknowledge their presence. This strengthens the bonds between sellers and buyers and improves the social presence in live streaming shopping (Lim et al., 2020). All these environmental stimulus of experiencing a real time interaction with real human through live streaming platform, along with seller's efforts to create a conducive and friendly atmosphere for their audience, will have an impact on a person's psychological or perceptual state, which make social presence as the stimulus of this research (Fu et al., 2021).

## 2.1.3 Sales Promotion as Stimulus

In an effort to attract people, both consumers and potential buyers, sellers often offer sales promotions so that we would buy their products. Sales promotions are sometimes created to entice customers and potential customers to act quickly, make larger purchases, and make repeat purchases, according to the book Marketing Principles (Tanner & Raymond, 2012). Offering discounts on specific products and limited-edition banded pack offers that are only available during the live streaming are some of the clever consumer sales promotions used by live shopping merchants (Sharma, 2022). Product discounts are a major factor in getting customers to use live shopping and place orders during live streaming shopping, according to a study by Yang (2021).

By far, time-limited promotions can be said as one of the most anticipated promos by shoppers. The low prices offered only during the live streaming excite a lot of individuals, who then compete to engage in the live streaming and buy the products using tantalising promo while it still last. For businesses, offering significant promotional discounts to boost consumer spending is alluring, especially when the economy is struggling and sales are stagnant. However, sales promotion ought to reinforce the product's positioning and foster lasting relationships with consumers rather than just generating short-term sales or transitory brand switching (Kotler & Armstrong, 2018). Every sales promotion tool, when effectively developed, may foster lasting relationships and consumer engagement, along with generating short-term enthusiasm. Sales promotion could become the ultimate stimulus in this research since the excitement consumers feel in response to the price reduction and other interesting promotional cues used by sellers will eventually affect their internal psychology and influencing them into thinking they should make a purchase on that certain product being promoted.

# 2.1.4 Flow Experience as Organism

Flow state is a condition where people are fully immersed and focus with the activity that they really enjoy and start to lose track of time and everything around them (Ellis et al., 1994). In this context, consumer will achieve their flow state when they are fully immersed in the live streaming that they watch, until they lose track of time and everything else. In this context, consumer will achieve their flow state when they are fully immersed in the live streaming that they watch, until they lose track of time and everything else.

In order to get consumer a fully immersed experience, external environment influence needs to be strong enough to make them engage with the Stimuli. Put another way, when customers engage with external cues, their participation in the activity may provide a flow experience (Huo et al., 2023). Flow experience will eventually lead the consumers into an impulsive buying behavior. Before achieving the flow state, consumer should be enticed with the Stimulus of TikTok live streaming shopping which are an interactive human presence of seller and buyer in the live stream room and accompanied with intriguing sales promotion. When affected by these stimuli, unconsiously, we will find viewers feel at home watching hours of products being showcased, sellers' persuasive ways of promoting and explaining the excellence of their

product, plus alluring promos that are only available during live broadcasts. This is where we can tell that someone has entered the flow stage.

## 2.1.5 Impulsive Buying Behavior as Response

Impulse buying is the act of making an unplanned, spontaneous purchase decision that is triggered by environmental cues or stimuli and is accompanied by intense sensations of excitement and pleasure (Wu et al., 2016). Another definition of impulsive purchasing is that it is one of those cravings that makes a person happy. Individuals who purchase impulsively are more likely to buy goods and services at the last minute (Kalekar & Babar, 2022).

Four categories can be used to further categorize impulsive buying: planned impulse buying, reminder impulse buying, suggestion impulse buying, and pure impulse buying (Stern, 1962). Planned impulse buying is when a customer walks into a store expecting and intending to make more purchases based on price reduction, coupon offers, and similar incentives. Reminder impulse buying is remembering previous experiences with the product or knowledge about certain products that "sparks" impulsive purchases. Suggestion buying is when a customer sees a product for the first time and perceives a need for it, even though she is unfamiliar with it beforehand. Pure impulse buying is a purchase that deviates from a typical purchasing behavior.

In order for consumer to have impulse buying as a response, they will need to follow from stimulus which are social presence and sales promotion, into the state of enjoyment and full immersion in the TikTok live streaming (organism). Since their internal cognition are now influencing them into thinking they have the need to buy something all of a sudden and immediately, they will unconsiously letting their guard down and commit the last stage which is impulsive buying as the response.

## 2.1.6 Live Streaming Shopping

According to Cai et al. (2018), live streaming shopping is said to include social commerce characteristics since it incorporates real-time interaction with

online shopping. Cai's study also states that there are two approaches to doing live streaming shopping: either e-commerce is merged into live streaming, like LiveMe and Livby, or live streaming is embedded into e-commerce, like Amazon Live, Taobao.com, and JD.com. Live streaming feature was developed to fulfill the need of social presence that traditional e-commerce lack for. In the live shopping experience, sales representatives of the store will hold a live stream and engage in a two-way conversation via an integrated chat field. In the comment section, viewers of the live streaming can engage with the seller by raising questions, giving their opinions about the products being displayed, and interacting with other clients while they shop (Wongkitrungrueng et al., 2020).

By interacting in real-time with customers from different parts of the country, live shopping enables online merchants to exhibit their products simultaneously, providing customers with more comprehensive product details without having to construct several physical storefronts in different areas (Y. Sun et al., 2019). This research will use TikTok as the platform that facilitates the live shopping features between seller and buyer, enabling them to interact lively with each other in real time. TikTok is chosen as the platform in this research due to its heavy usage by Indonesian nowadays. The TikTok social media platform is packed with 126.8 million users aged 18 and above in Indonesia in early 2024 (Kemp, 2024). According to Social Media Statistics for Indonesia based on the Digital 2024 Global Overview Report, the average time used by Indonesians to use TikTok is 38 hours and 26 minutes per user per month, reflecting very intense usage, which makes consumers more prone to impulsive buying behavior while engaging in TikTok and its live shopping feature (Howe, 2024).

# 2.2 PRIOR RESEARCH

Table 2.1

Prior Research

No.	Research Title, Author's	Variables	Research Method	Key Findings
	Name (year)		/ 4	
1.	Exploring Factors	• Stimulus	Research Subject:	1. The results of the empirical
	Affecting Consumer's	1. Social Presence	Individuals in China who	study show that social presence
	Impulse Buying Behavior	2. Sales Promotion	have just recently engaged	and sales promotion have a
	in Live-Streaming		in live streaming shopping	positive effect on flow
	Shopping: An Interactive	• Organism	within the past three	experience, which in turn
	Research Based Upon SOR	Flow Experience	months.	encourages customers to make
	Model			impulsive purchases during live
		• Response	Total Respondent:	streaming.
	(Huo et al., 2023)	Impulse Buying Behavior	375 respondents	2. Impulsive buying behavior of
			V	consumers is positively
		Time Availability	Data Collecting Method:	affected by flow experience.
		Money Availability	Online Survey	3. Favorable moderation of time
		J J		and money availability was also
			Analysis Tool:	shown by the results of this study.
			Structural Equation	
			Modelling (SEM) using	
			AMOS 23.0.	
2.	Do TikTok Discounts	• Discount on	Research Subject:	1. In Indonesia, generation Z's
	Livestream Triggers Gen Z	Livestream Selling	Customer using TikTok live	impulsive purchases along with
	Impulse Buying	<ul> <li>Positive Emotion</li> </ul>	streaming who is based in	positive emotions were positively
	Behavior?	Impulse Buying	Indonesia, aged between 12	and significantly impacted by

			and 27, and has at least once	discounts offered during live
	(Refasa et al., 2023)	-50	purchase product through	streaming on the TikTok app.
		c ATM	TikTok live stream.	2. In Indonesia, generation Z's
				impulsive purchases and
			<b>Total Respondent:</b>	discounts while live streaming
		(2)	220 respondents	are indirectly influenced by
			/ \ 4	positive feelings.
			<b>Data Collecting Method:</b>	3. These results can help online
			Online Survey	entrepreneurs maximize their
				marketing efforts in the rapidly
			Analysis Tool:	expanding live streaming
			Structured Equation	industry.
			Modeling (SEM) using	
			AMOS 24.	
3.	The Influence of Social	Social Media	Research Subject:	1. Social media presence and
	Media and Sales Promotion	Sales Promotion	All students at Sam	sales promotion had a positive
	on Impulsive	Impulsive Buying	Ratulangi University's	and significant impact on
	Buying Behavior on	Behavior	(Unsrat) Faculty of	students' impulsive buying
	Shopee E-Commerce on		Economics and Business	behavior on Shopee e-commerce
	Student at Faculty of		(FEB).	at Sam Ratulangi University's
	Economics and Business			(Unsrat) Faculty of Economics
	Sam Ratulangi University		<b>Total Respondent:</b>	and Business (FEB).
	Manado		100 respondents	2. Majority of FEB Unsrat
				students are exposed to Shopee-
	(Derek et al., 2022)		<b>Data Collecting Method:</b>	related content on Facebook,
			Online Survey	Instagram, and TikTok, among
				other social media platforms.
			Analysis Tool:	This exposure ultimately causes

		SPSS	them to make impulsive
		A 10-	purchases on Shopee.
	ATIVL	A JAYA.	3. Shoppee e-commerce sales
	.05		promotion indicators which are
			coupons, rebates, price bundles,
	25		premium (prize), and contest has
			been successful in encouraging
			impulsive shopping among FEB
			Unsrat students on Shopee.
How Online Reviews	• Stimulus	Research Subject:	1. Trust is positively impacted by
Affect	1. Perceived Information	Students at a university in	the social presence of online
Purchase Intention: A New	Quality	China representing a range	reviews as well as the perceived
Model Based on The	2. Social Presence	of ages, professions, and	quality
Stimulus-Organism-			2. While trust has a favorable
Response (S-O-R)	Organism		effect on satisfaction and acts as
Framework	1. Consumer Trust	<b>Total Respondent:</b>	a mediator between two stimuli
	2. Consumer Satisfaction	302 respondents	and satisfaction, satisfaction with
(Zhu et al., 2020)			online reviews influences
	Response	<b>Data Collecting Method:</b>	purchase intention.
	_		3. It has been discovered that the
	Turenase intention	snowballing method	perceived information quality of
	Emotional Polarity		favorable online reviews
		Analysis Tool:	significantly influences trust,
		Smart PLS 3.2.8	satisfaction, and purchase
			intention.
	Affect Purchase Intention: A New Model Based on The Stimulus-Organism- Response (S-O-R) Framework	How Online Reviews Affect Purchase Intention: A New Model Based on The Stimulus-Organism- Response (S-O-R) Framework  • Stimulus 1. Perceived Information Quality 2. Social Presence  • Organism 1. Consumer Trust 2. Consumer Satisfaction	How Online Reviews Affect Purchase Intention: A New Model Based on The Stimulus-Organism- Response (S-O-R) Framework (Zhu et al., 2020)  • Response Purchase Intention  • Response Purchase Intention

Hadanatan din a China -	Gu. 1	Danas and Carleins	1 ACELC and CDELC and to a
_			1. ACELS and SPELS, which act
•			as environmental cues during
			livestreaming, considerably
_		experience.	increase EOC while considerably
	2. Atmospheric Cues in E-	G	constraining their ZYT.
the Mediating Role of	Commerce Livestreaming	Total Respondent:	2. Positive EOC encourages IBI
Emotions and Zhong Yong	(ACELS)	478 respondents	among online shoppers, while
Tendency			ZYT dampens it.
-	Organism	<b>Data Collecting Method:</b>	3. It is proven that both ACELS
(H. Gao et al., 2022)	O .	Online Questionnaire	and SPELS are related to IBI via
		through Wenjuanxing App	the mediating effect of ZYT and
	2. Emotion of Online		EOC.
	Customers (EOC)	Analysis Tool:	
		Smart PLS 3.0 and SPSS 24	
	Response		
	_		/ /
	(IBI)		
Defining the determinants	Satisfaction	Research Subject:	1. Regarding the ECM issue, e-
of online impulse buying	1. Perceived Risk	People with online impulse	store performance confirmation
	2. Perceived Usefulness		influences perceived usefulness
			positively and significantly, but
1 -		<b>Total Respondent:</b>	not with customer satisfaction.
1 *	0 0 33222 2324472 0 32	_	2. Perceived usefulness is a
,	Flow State	To Do Taranta and	significant factor influencing
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Data Collecting Method:	customer satisfaction
(Wu et al. 2020)			3. Perceived risk has a negative
(	2. 1 ask Chancinge		and significant effect on
	Online Impulse Buying	Analysis Tool:	and significant criect on
	Tendency (H. Gao et al., 2022)	Consumers' Livestreaming Impulsive Buying: An Stimulus-Organism- Response Perspective and the Mediating Role of Emotions and Zhong Yong Tendency  (H. Gao et al., 2022)  Defining the determinants of online impulse buying through a shopping process of integrating perceived risk, expectation-confirmation model, and flow theory issues  1. Sales Promotion on E- Commerce Livestreaming (SPELS) 2. Atmospheric Cues in E- Commerce Livestreaming (ACELS)  Organism 1. Zhong Yong Tendency (ZYT) 2. Emotion of Online Customers (EOC)  Response Impulsive Buying Intention (IBI)  Satisfaction 1. Perceived Risk 2. Perceived Usefulness 3. E-Store Performance Confirmation  Flow State 1. Task Skill	Consumers' Livestreaming Impulsive Buying: An Stimulus-Organism-Response Perspective and the Mediating Role of Emotions and Zhong Yong Tendency  (H. Gao et al., 2022)  Defining the determinants of online impulse buying through a shopping process of integrating flow theory issues  (Wu et al., 2020)  I. Sales Promotion on E-Commerce Livestreaming (SPELS)  2. Atmospheric Cues in E-Commerce Livestreaming (ACELS)  Organism  1. Zhong Yong Tendency (ZYT)  2. Emotion of Online Customers (EOC)  • Response Impulsive Buying Intention (IBI)  • Satisfaction  1. Perceived Risk  2. Perceived Usefulness  3. E-Store Performance  Confirmation  Confirmation  Total Respondent:  People in China that have a recent live shopping experience.  Total Respondent:  Total Respondent:  People with online impulse experience  Total Respondent:  352 Respondents  Total Respondent:  352 Respondents  Online Survey

		SMERSITAS ATM	Structural Equation Modelling (SEM) using AMOS 22.0	perceived usefulness and customer satisfaction.  4. When it comes to flow state issues, task skill has a big impact. Task challenge demonstrates the same level of influence.  5. When it comes to flow state and satisfaction, flow state has a significant and positive impact on customer satisfaction, and the other way around also has a comparable level of influence.  6. Additionally, the flow state has a significant and positive impact on online impulse buying, and customer satisfaction also has a degree of influence on online impulse buying.
7.	How social presence	• Stimulus	Research Subject:	The findings indicate that
	influences impulse buying	1. Social Presence of Live	Customers in China who	telepresence and the three aspects
	behavior in live streaming commerce? The role of S-	Streaming Platform	have engaged in live	of social presence—the social
	O-R theory	2. Social Presence of Viewers	streaming shopping.	presence of live streaming platforms, viewers, and live
	O-K theory	3. Social Presence of	<b>Total Respondent:</b>	streamers—have a positive and
		Streamers	405 respondents	significant impact on consumer
	(Ming et al., 2021)	4. Telepresence	105 Tespondents	trust and flow state, which in turn
		1. Telepresence	Data Collecting Method:	encourages impulsive

0		<ul> <li>Organism</li> <li>1. Consumer Trust</li> <li>2. Flow State</li> <li>Response</li> <li>1. Impulsive Buying</li> <li>Behavior</li> <li>Personal Sense of</li> <li>Power</li> </ul>	Online Survey  Analysis Tool: Statistical Packages for Social Science (SPSS) 22.0 version and AMOS 22.0 version	buying behavior. Additionally, the process from customer trust, flow state, to impulsive buying behavior is moderated by consumers' sense of power.
8.	The Effect of Social Presence in Live Streaming	• Stimulus 1. Social Presence of Live	Research Subject: Citizens of Indonesia who	The study's primary results show that consumer trust is
	Shopping Shopping	Streaming	have at least once engaged	significantly and positively
	on Tiktok Platform Users	2. Social Presence of	in live streaming purchase	influenced by both the social
	on Impulse Buying	Viewers	transactions on Tiktok.	presence of live streaming and
	Behavior	3. Social Presence of		the social presence of viewers.
		Streamers	Total Respondent:	Additionally, impulse buying
	(Fara & Hartono, 2024)		188 respondents	is positively and significantly
		<ul> <li>Organism</li> </ul>		influenced by consumer trust.
		1. Consumer Trust	<b>Data Collecting Method:</b>	Furthermore, streamers' social
			Online Survey	media presence has a negative
		• Response	A I To - I	and insignificant effect on
		1. Impulse Buying	Analysis Tool: SPSS & PLS-SEM	customer trust.

#### 2.3 HYPOTHESIS DEVELOPMENT

## 2.3.1 Social presence influence consumers' flow experience

Findings from the study of Huo et al. (2023) indicates that when people have strong sense of the presence of others in the live streaming, they will have a more pleasurable and immersive experience (flow experience). According to Short et al. (1976), social presence is the degree to which someone is regarded as "real" in a mediated communication. Communication between sellers and consumers in the live streaming shopping is mediated by TikTok live streaming platform. Even though mediated, live streaming shopping incorporates a real-time interaction with online shopping (Cai et al., 2018). By real time interaction, it means sales representatives of the store will engage in a two-way conversation with consumers via an integrated chat field in the live streaming.

During the live streaming, viewers of the live streaming can engage with the seller by raising questions, giving opinions about the products being displayed, and interacting with other clients (Wongkitrungrueng et al., 2020). Sellers will then answer their questions, follow the viewers' request, and acknowledge the viewers to make them feel included and appreciated. When salespeople mention customers in order to acknowledge their presence and responding to their requests, it gives customers a feeling of appreciation, build connections between the two parties, and enhance the social presence in live shopping (Lim et al., 2020)

The fulfilment of social interaction in real-time with real human (sellers), presented in an online shopping ambience, makes both consumers and sellers perceived each other as being there as a real person even when the interactions are mediated through the TikTok live streaming. Feelings of appreciated and welcomed as a consumer also strengthen the perceived social presence, which has a significant impact on how customers feel on the inside (both cognitive and affective). Customers participating in live streaming need to invest their time and attention entirely on the content being delivered and the real-time

interactions within (Huo et al., 2023). At this point, consumers will pay their attention fully to the live stream, while enjoying themselves to be losing self-control and track of time. Flow state is a condition where people are fully immersed and focus with the activity that they really enjoy and start to lose track of time and everything around them (Ellis et al., 1994).

Study by Algharabat et al. (2018) linked social presence with Consumer Brand Engagement (CBE). According to their research, consumers would be more engaged with brand pages on social media platforms if marketers can elicit feelings of warmth or stimulate imaginations of interacting with others. The higher the sense of human warmth, the higher the level of consumers' cognitive, emotional, and behavioral investment in the brand interactions. Seeing the causal relationship between social presence and flow, social presence generated from TikTok live streaming brings consumers to experience the stages of enjoyment and immersion in the activities they are engaging in, which in this context is watching live streaming. Based on this relationship and previous study, the proposed hypothesis is:

H1: Social presence influence consumers' flow experience

## 2.3.2 Sales promotion influence consumers' flow experience

Another important element influencing how customers could get the flow experience is sales promotion. Sales promotions provide consumers with price discounts, bonus packs, banded packs, and coupons (Sharma, 2022). As a stimulus, product discounts are a major factor in getting customers to use live shopping and place orders during live streaming shopping, according to a study by Yang (2021). A study by Refasa et al. (2023) found that people show a strong, difficult-to-control, positive emotion in response to price reductions in products, making them want to purchase the product. Findings from the study of Huo et al. (2023) found that customers are encouraged to spend more time watching live streams due to the tempting sales promotion. When there is a sales promotion during live streaming, both new and existing customers are going to

engage and try to learn more about the product. The consumers will automatically become absorbed in the live streaming as they watch it and use the comment section to communicate with sellers, which requires a lot of time and focus (Huo et al., 2023).

Since flow experience can only occur when people are fully immersed and focused on the activity they are engaging in (Ellis et al., 1994), sales promotion plays a role as one of the stimuli or influences on the flow experience for consumers. Another study by H. Gao et al. (2022) discovered that using time-limited sales promotions, like flash sales, could directly impact customers' emotions by generating a sense of urgency for the limited-edition offering while simultaneously stimulating their enthusiasm for the promotion and products. Without realizing it, people will be tempted to pay attention to the products that are on sale and continue to think about their choice of whether to buy and which product to buy. This requires them to take their time and focus on the activities they are doing at the time, which then results in a flow experience. The sales promotion that live streaming offers has a direct impact on the construction of a flow experience, which is an absorbing experience consisting of both the cognitive and affective (emotional) parts of an individual. Therefore, the proposed hypothesis is:

H2: Sales promotion influence consumers' flow experience

## 2.3.3 Flow experience influence consumers' impulsive buying behavior

Flow state is a condition where people are fully immersed and focused on the activity that they really enjoy and start to lose track of time and everything around them (Ellis et al., 1994). Wu et al. (2016) define flow experience as a self-perception of the emotional state that people specifically experience when engaging in or interacting with activities that they enjoy (external stimuli). Huo et al. (2023) claim that flow experience has a positive effect on consumers' impulsive buying behaviors. This is in line with the findings of Wu et al. (2016), who found that consumers' unintentional purchase

behavior rises while they are absorbed in the flow experience. Customers are more likely to enjoy their online shopping experience if they feel confident and at ease while shopping. Additionally, if they enjoy their shopping experience, they will have higher positive emotions about shopping. In response, people with positive emotions at the time are more likely to spend more or make impulsive purchases while shopping, making the flow experience one of the factors influencing impulsive buying among consumers.

Another study by Jiang (2022) examined the feeling of flow and classified it into four categories: presence, concentration, time distortion, and exploratory behavior. Jiang's findings show that while exploratory behavior has no significant impact on impulsive buying, the flow experience dimensions of presence, concentration, and time distortion have a significant positive impact on it. This suggests that improving consumers' immersive presence, concentration, and time distortion can improve their impulsive buying. In that study, Jiang also found that the most significant influence on impulsive purchasing is found in the distorted sense of time, suggesting that this dimension has a more immersive flow state than presence and concentration. Consumers that are exposed to live streaming content for a long time will develop a high flow experience and are more likely to make an impulse purchase while watching the live stream. Based on the findings in the previous studies, the proposed hypothesis for this research will be:

H3: Flow experience influence consumers' impulsive buying behavior

## 2.4 CONCEPTUAL FRAMEWORK

To better comprehend the idea behind this research, it is essential to see the hypothesisand the relationships between the variables that were used. Therefore, following the formulation of the hypothesis, the conceptual framework for the research would be shown as follows:

