ENHANCING REPURCHASE INTENTION IN E-COMMERCE LIVE STREAMING VIA RELATIONAL BONDS DURING COVID-19 PANDEMIC

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BY

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A final year project submitted in partial fulfilment of the requirement for the degree of

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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) Equal contribution has been made by each group member in completing the FYP.

(4) The word count of this research report is 17480 words.

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DEDICATION

This project is especially dedicated to my respectful supervisor, Ms Loh Yin Xia who helped and guided me to successfully complete this research project. Also, I would like to dedicate this project to my friends and family members who granted me endless support and encouragement when I feel lost throughout my research.

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LIST OF ABBREVIATIONS

AVE	Average Variance Extracted
CE	Consumer Engagement
CS	Consumer Satisfaction
CSV	Comma-separated values
FB	Financial Bond
HTMT	Heterotrait-Monotrait
NESR 2.0	National E-commerce Strategic Roadmap 2.0
PLS-SEM	Partial Least Square Structural Equation Modelling
RI	Repurchase Intention
SB	Social Bond
SOR	Stimulus-Organism-Response
SPSS	Statistical Package for Social Science
TB	Structural Bond
VIF	Variance Inflated Factor

PREFACE

This research project is conducted in compliance to the preliminary requirement to complete the study of Bachelor of International Business (Honours) in Universiti Tunku Abdul Rahman. The main desire for this research work has originally come from my long-time interest to watch China e-commerce live streaming, Taobao Live. Plus, I was recently invited to join an e-commerce marketplace as broadcasting talent. As the world is driving towards advancement, it is equally important to understand consumers behaviour in e-commerce live streaming. With that, I wish that I would make use of the results of findings in my future career, if and only if I become a broadcasting talent.

ABSTRACT

The features on e-commerce marketplace are changing dynamically to attract the consumers needs and wants. The embedment of live streaming feature was seeing a profitable future in China e-commerce retail market. However, e-commerce live streaming in Malaysia remains at its infant stage and underrepresented by the previous literature study. This study examined influential factors in repurchase intention via consumer satisfaction and consumer engagement from relationship marketing perspective using Stimulus-Organism-Response model. This study sought to close the research gap by examining (1) the influence of financial bond towards consumer satisfaction and consumer engagement, (2) the influence of social bond towards consumer satisfaction and consumer engagement, (3) the influence of structural bond towards consumer satisfaction and consumer engagement and (4) the influence of consumer satisfaction and consumer engagement towards repurchase intention. There were eight hypotheses proposed and examined through quantitative metric using online survey questionnaire. There were 208 valid responses adopted from the survey. All collected data were analysed using Partial Least Square Structural Equation Modelling (PLS-SEM) for inferential analysis. The results of the study provided important findings that financial bond did not significantly influence consumer satisfaction and consumer engagement. Social bond was proven as a stronger predictor in consumer satisfaction, that is, consumers actively seek for care from broadcasters. While structural bond contributed more towards consumer engagement by emphasising valuable information. Proceeding to the repurchase intention, the overall study suggested that consumer satisfaction had greater impact as compared to consumer engagement. The broadcasters, marketers and small-and-medium enterprises who wish to improve sales by generating repeat order from single lead should focus more on making the consumer happy during live streaming.

Chapter 1: Introduction

1.1 Introduction

This research investigated the factors influencing consumer repurchase intention toward e-commerce live streaming. This chapter reveals the research background, research problem, research aim, research questions, research objectives, research scope and research significance.

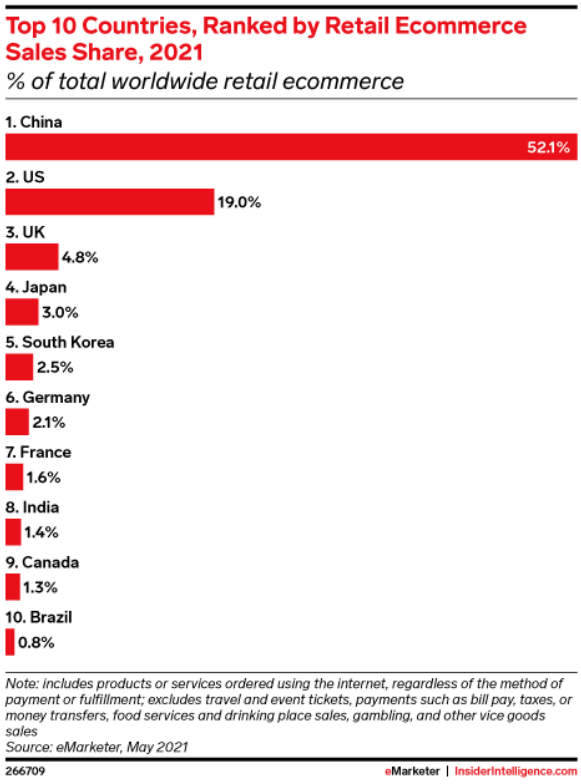
1.2 Research Background

This research constituted a relatively new area of study which had emerged from e-commerce live streaming. E-commerce has redefined the consumers' shopping approach and upended the business model. It can be regarded as the end of 'normal' shopping decisions (Fiedler et al., 2020). While some consumers are resuming to stores, the argument that the pandemic has permanently altered purchasing behaviour is actually confirmed. With the aid of the Internet, e-commerce has evolved rapidly in this dynamic business world and enabled globalized business transactions. The e-commerce market has grown from a basic complement to brick-and-mortar retail to a multi-device and store model retail economy. The e-commerce marketplace providers have introduced many exciting features on their respective platforms to attract consumers retention; one of them is live streaming. Live streaming is the broadcasting of live video using the Internet. It is the closest way for merchants to connect to the consumers (Galit, 2020). It may be perceived as modern television shopping, yet, more interactive as it allows immediate dual communication in real-time.

1.2.1 E-Commerce Live Streaming in Global View

Looking from the global view, China has been way ahead in leading the retail e-commerce sales by gaining more than half of the worldwide retail e-commerce share, as shown in Figure 1.1 (Abrams, 2021). Live streaming had been a must-follow trend by all e-commerce players. The focal point was directed to the beast of e-commerce in China, the Alibaba Group. Alibaba Group owned entities ranging from commerce retail to commerce wholesale, for both local and cross border commerce. It implements live streaming features to almost all entities owned.

Figure 1.1: Countries Ranking by Retail E-Commerce Sales Share



Source: Abrams, K.von. (2021, July 14). *These are the top global ecommerce markets*.

Dates back to Taobao for being the first to develop e-commerce live streaming in 2016, low-to-mid-range priced clothing were promoted to

young female shoppers (Arora et al., 2021; Magloff, 2020). The broadcaster will put on different clothes, explain the particular characteristics to the audiences and interact with them to encourage consumers place order (Magloff, 2020). The live streaming feature is then imitated by many other e-commerce platforms in China like JD.com, Pinduoduo, Douyu and Douyin (Ma, 2021). Not to mention, Alibaba Group has continuously invested technical improvement, online and offline resources and proactive measures in live streaming context to help all sizes of businesses to seize the opportunity and embrace growth. As of 2020, loyal consumers on e-commerce marketplace would watch 6 live streams per day, place an average of 10 orders and spend more than RMB 1500 per month; resulted an 150% increase of the user viscosity (Alibaba Group, 2021). Looking from the big picture, e-commerce live streaming in China is considered highly popularised. As shown in Figure 1.2, more and more commerce players joining into the market by reinventing live streaming feature (Stahle, 2020).

Figure 1.2: Top E-Commerce Players in China Which Invented Live Streaming

Logo	Platforms	Positioning	Audience	Daily Average Users	Products
	Taobao	Commerce	Millennial women	240M (460M for 11.11)	All categories (mainly womenswear, beauty products, and consumer goods)
	Douyin	Entertainment & Commerce	Mainly urbanites	> 40M	All categories (mainly womenswear, beauty products, and consumer goods; generally lower price point)
	Kuaishou	Entertainment & Commerce	3rd tier cities and below	>300M	Consumer goods, local specialties, agricultural products
	Pinduoduo	Commerce	3rd tier cities and below	135M (220M for 11.11)	Consumer goods, local specialties, agricultural products
	JD	Commerce	Mainly urbanites	44M	Larger brands (F&B, tech, consumer goods, appliances)
	Bilibili	Entertainment & Gaming	Generation Z	40M	Technology products, niche fashion
	Xiaohongshu	Commerce	Women in 20's & 30's	25M	Beauty products
	Wechat	Commerce & Education	All	> 1B	All categories (still in early stages, beauty, fashion, mommy baby popular)
	Mogujie	Commerce	Millennial women in lower tier cities	4M	Domestic fast fashion

Source: Stahle, E. (2020). *China ' s live streaming e-commerce reaches new heights e-commerce*. The China Guys.

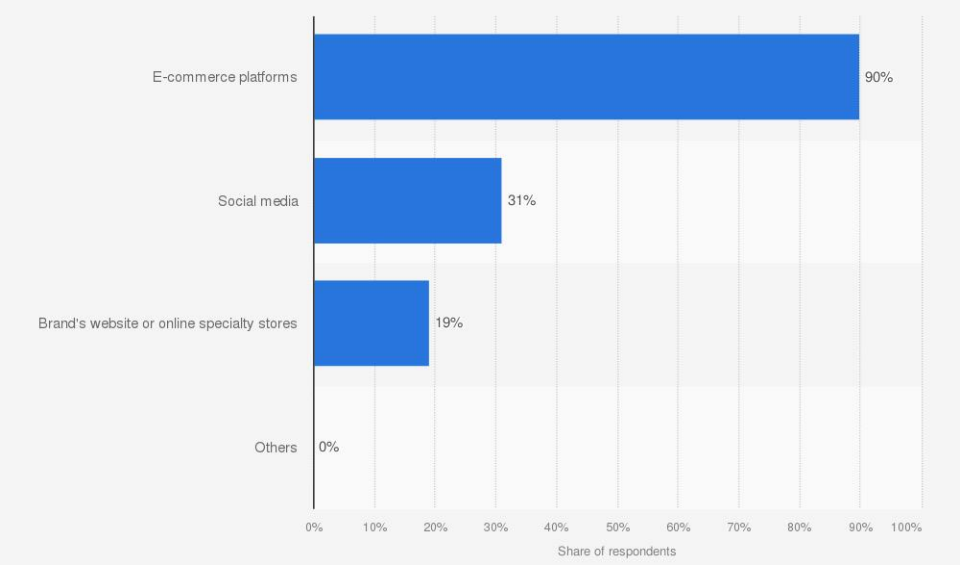
Western countries-based e-commerce marketplace like Amazon.com and eBay.com do not resign from the competition, but they are consciously aware of the spectacular benefits, then keep up with the surging market trend at dynamic pace as well. Nonetheless, the launching of live streaming on Amazon.com as the biggest e-commerce platform in United States has not been regarded favourably. The key aspects of e-commerce live streaming including the disconnection between live streaming influencers and audiences, the lack of audience interaction and consistency of initiating live streaming were remained unattended by Amazon.com (Hallanan, 2019).

1.2.2 E-commerce Live Streaming in Malaysia

E-commerce is slowly gaining its importance as a consumption channel and even gain trifold increment within 3 years (Piyaphitakskul, 2022). According to (Müller, 2021b), e-commerce platforms were voted as the most preferred online shopping platforms. Boosted with the initiatives outlined in National E-commerce Strategic Roadmap 2.0 (NESR 2.0), e-commerce live streaming has certainly marked explosive growth and transformed it as a mainstream of marketing communication tool amid the outbreak of COVID-19 pandemic (Malaysia Digital Economy Corporation, 2021). A sidenote from that, it is concluded that clothing and fashion is the most popular category that sold on live streaming, mainly attributable to its ease of display and exciting yet valuable fashion tips by the broadcasters (Pek, 2021). The rank then followed by electronics and media, food and beverages and groceries, personal care, health and beauty, seafood, and jewellery (Pek, 2021). As soon as 82% of the retailers are experiencing dramatic revolution of business and technological, live-streaming thus becomes widely attractive on numerous e-commerce marketplaces (Renz et al., 2021; The Star, 2018).

As of 2021, almost half of the Malaysian populations have accessed the e-commerce live streaming (Statista, 2022). As mapped by iPrice (2021), the most popular e-commerce marketplace in Malaysia is leaded by Shopee with 71% of market share and followed by Lazada being the second with 18% of market share.

Figure 1.3: Preferred Online Shopping Platforms in Malaysia in 2020



Source: Müller, J. (2021, November 23). Preferred online shopping platforms 2020. Statista.

1.2.2.1 Shopee Live

Shopee is instituted in 2015 and constantly providing seamless e-commerce experience to its respective users. It introduced the live streaming feature in May 2019 to enrich the shopping experience by not only bringing the consumers closer to their preferred brands and retailers, but also entertaining the consumers with abundant media content (The Star, 2019). For instance, Shopee in partnership with South Korean entertainment and media company, CJ ENM, realised free concerts 'KCON:TACT 2020 Summer' via live streaming from 20 to

26 June 2020 while the K-pop wave was hitting in Southeast Asia (Mulia, 2020). During the Shopee Live K-pop Fest, popular K-pop groups appeared on Shopee Live and engaged by all means including musical performance, interviews, and interactive games. Figure 1.4 exhibited the official promotional banner of 'KCON:TACT 2020 Summer'.

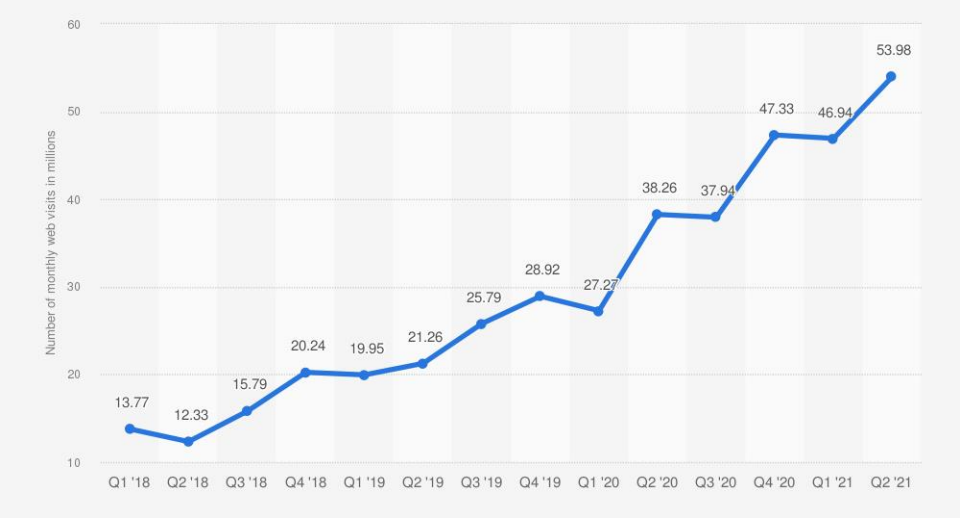
Figure 1.4: Shopee Live Streaming Event 'KCON:TACT 2020 Summer'

Source: Mulia, K. (2020, June 10). *As its livestreaming service hits a new record, Shopee is bringing Korean culture to Shopee Live*. Kr Asia.

Besides entertainment, according to the statement of Shopee, the influencer Tyra Kamaruzzaman managed to achieve 2000 orders of lipstick in minutes at the initial launch of Shopee Live (The Star, 2019). Repeatedly, the outbreak of COVID-19 had definitely upended the consumer behaviour. Shopee recorded that the number of sellers doing live streaming on its marketplace had experienced a dramatic increase of 700%, demonstrating high demand to seek for personal way to connect to consumers in digital era (The Star, 2020). In arm with the cooperation with local government, Shopee infused the gene of continual improvement in blood and benefited with increased monthly

web visits over the years. As shown in Figure 1.5, the tremendous spur of total streaming time by 200% on Shopee since February 2020 had driven a remarkable increase of 10.99 million monthly web visits in the subsequent quarter of the year (Hirschmann, 2022). Although Shopee introduced heaps of engagement tools, Shopee Live remains the most popular one to forge ahead delivering innovative, engaging, and exclusive purchasing experiences for Malaysians.

Figure 1.5: Number of monthly web visits on Shopee in Malaysia from 1st quarter 2018 to 2nd quarter 2021 (in million)



Source: Hirschmann, R. (2022, March 28). *Number of monthly web visits on Shopee in Malaysia from 1st quarter 2018 to 2nd quarter 2021*. Statista.

1.2.2.2 LazLive

Founded in 2012 and acquired by Alibaba Group in 2016, Lazada has been progressing steadily and expanding the coverage of services across Southeast Asia. LazLive is the built-in live streaming feature provided by Lazada. By allowing real-time engagement to connect both consumers and broadcasters simultaneously, LazLive generated a

skyrocketing increase in total gross merchandise volume by 45% month-over-month (Lazada Group, 2020). Being the pioneer in Southeast Asia to offer 'See-Now-Buy-Now' concept, LazLive replicated Alibaba's technology and offered a rattling good live streaming experience. Supported by high demand for digital shopping experiences, LazLive is considered an effective instrument to tie both sellers and consumers under the recent cohesive norm.

LazLive does not only provide the viewers with a brand new and exciting channel to shop but opens more opportunities for the seller to offer their goods and services. In alliance with the strong embracement of LazLive, it promoted the number of monthly web visits on Lazada to rebound from the thorough at 12.32 million to 16.08 million over a quarter of the year (Müller, 2021a). Figure 1.6 illustrates the number of monthly web visits on Lazada. According to the official press release in 2020, the one-day revisit rate had risen by 40% since April, which invited more people to come back the day after to watch live streaming (Lazada Group, 2020). Bundled with premium marketing packages, extensive web-based learning options and a free live streaming program, LazLive provided tons of ease for the seller and attracted 70% of new LazLive accounts amidst the peak of COVID-19 (Lazada Group, 2020).

Figure 1.6: Number of monthly web visits on Lazada in Malaysia from 1st quarter 2018 to 2nd quarter 2021 (in millions)

Source: Müller, J. (2021a, September 29). *Number of monthly web visits on Lazada in Malaysia from 1st quarter 2018 to 2nd quarter 2021*. Statista.

1.3 Problem Statement

This section discusses the problem from two different perspectives, namely from the theoretical and practical lenses.

1.3.1 Theoretical Problem

Despite the rapid development in relevant field of practice, there is still a lack of attention paid to e-commerce live streaming in academia. Previous studies explored and explained that e-commerce live streaming is appealing and motivating purchase intention (Benjiang Lu & Chen, 2021; Richard & Guppy, 2014; Wang et al., 2018). Also, there are tons of studies conducted on e-commerce live streaming and impulse purchase intention in recent years (Gong et al., 2020; Y. Huang & Suo,

2021; Li et al., 2022; Ming et al., 2021; Zahari et al., 2021). Even so, study on e-commerce live streaming context is often conducted on China context (Qian, 2021). Hence, this study identified a research gap in repurchase intention in the e-commerce live streaming context.

1.3.2 Practical Problem

Adhering to the blind spot of emphasizing sales in which sales often provide immediate revenue, primarily supported by lead generation and marketing technologies and the association of revenue with improving lifetime value modelling, consumer repurchase is often undervalued (Vasudeva, 2022). In conjunction with marketers' core business appeal, maximising the customer lifetime value by encouraging unlimited purchases from a single effective lead. This research raised concerns about consumer repurchase intention (Jain & Singh, 2002). The statement, as mentioned earlier, is supported by a claim that businesses may cost 5x more to obtain a new lead rather than retain the existing one (Vasudeva, 2022). Plus, increasing 5% consumer repurchase helps businesses increase profits by at least fourfold since 40% of business revenue is often generated by 8% of consumers to make repeat purchases (Ho, 2020). It is undoubtedly challenging to trigger consumer repurchase intention. Along with the emergence of new e-commerce players by attractive financial returns and disruptive technology improvement, the consumers gain high bargaining power and tend to portray a vicious churn rate. Reliable statistics provided by Deloitte stated that more than 60% of consumers stopped purchasing from the same business due to better experience provided by the competitors (Glynn, 2020). Hence, this problem is specifically fatal to the retail e-commerce industry since consumers have unlimited access to foreign e-commerce with the development of globalisation.

"Just as the health crisis hits vulnerable people hardest, the economic crisis is expected to hit vulnerable countries hardest" (Georgieva, 2020). The impact of COVID-19 had an adverse impact on the financial stability in Malaysia. Some businesses have no choice but to assign unpaid leave or salary reductions to compensate for the financial losses of the poor financial performance during the peak period. Furthermore, as a majority of Malaysia's workforce is semi-skilled, many were found struggling to work from home. Department of Statistics Malaysia reported a sharp decline of 9% in average employees' salaries and wages, subsequently resulting in a 10% decrease in average household gross income (Mohd, 2021b, 2021c). Not only limited to that, but consumers are also sensitive to commodity prices due to the ease of comparing prices in the e-commerce marketplace (Das et al., 2021). Thus, Malaysian consumers are relatively price-sensitive in decision making.

As the long COVID effect persists, consumers seek consistent, reliable connections and feel much-needed joy in all areas of life. Malaysians spend three hours and one minute every day, or 46 days per year, on social media (Surin, 2022). 61% of respondents cited that engagement on social media contributes partially or even more significant as a source of happiness (Hirschmann, 2021). They aspire for an unparalleled quality of care, timeliness, uniqueness, and attentiveness virtually. As such, 70% of consumers reflected that they accentuate prompted responses from the businesses (Deloitte, 2019). In short, consistent interaction with the greater world places superior attention on consumers' interests.

As far as valuable information is concerned, it is essential to understand data creation. Globally, the quantity of data generated grows at a breakneck pace and records an enormous creation of 33 zettabytes of

data in 2018 (Armstrong, 2019). The amount of data consumed is equivalent to 33 million human brains, which can store 1 petabyte of data (Armstrong, 2019). Global data creation is anticipated to reach more than 2000 zettabytes in 2035 (Armstrong, 2019). The data exists in various forms, including text, image, audio and video. Living in the bombardment of data explosion, it takes time and effort to filter data according to its respective value. Else, valuable information that blended with falsified data in the massive sea of data makes purchase decisions even cost-consuming and time-consuming.

The particulars mentioned above stand to reason that it is essential to conduct the present research on relational bonds and consumer repurchase intention.

1.4 Research Aim

Thereby, this research proposed to further the investigation of the relationship between relational bonds, consumer engagement and satisfaction, leading to the consumer repurchase intention in the e-commerce live streaming context by using the Stimulus-Organism-Response (SOR) model.

1.5 Research Questions

The main research question induced from this research: how do broadcasters motivate consumer repurchase intention through relational bonds on e-commerce live streaming using the SOR model? Subsequent questions countered in this research were

i. What is the relationship between financial bonds with consumer satisfaction and consumers engagement?

ii. What is the relationship between social bonds with consumer satisfaction and consumers engagement?
iii. What is the relationship between structural bonds with consumer satisfaction and consumers engagement?
iv. What is the relationship between consumer engagement and consumer satisfaction with consumer repurchase intention?

1.6 Research Objectives

This research aimed to explore the SOR model in e-commerce live streaming to understand how broadcasters build relational bonds with the audience and affect consumer engagement and satisfaction that direct them to repurchase intention. This research listed the following objectives:

i. To investigate the influence of financial bonds on consumers satisfaction and consumers engagement.
ii. To investigate the influence of social bonds on consumers satisfaction and consumers engagement.
iii. To investigate the influence of structural bonds on consumers satisfaction and consumers engagement.
iv. To investigate the influence of consumers engagement and consumers satisfaction on repurchase intention.

1.7 Research Scope

This research examined the consumer repurchase intention of the live streaming shopper by using the SOR model. Hence, the research context encompassed three main domains: relational bond, e-commerce live streaming, and broadcasters. This research

was conducted by distributing online questionnaire written in English, which applies to users from different races and cultures in Malaysia.

1.8 Research Significance

By conducting this research, it projected a deeper understanding of Malaysians' consumption behaviour on e-commerce live streaming. This research also enriched the literature by closing the research gap on consumer repurchase intention toward e-commerce live streaming. Besides, it also served as a guideline for relevant parties to motivate consumer satisfaction, consumer engagement and repurchase intention ultimately. Failure to encourage consumer repurchase intention will put the merchants on the disadvantageous side by diminishing the consumer lifetime value.

1.9 Summary

In short, Chapter 1 disclosed the background of this research and its current problem. It continued with exploring the research aim, raising the research question, and proposing research objectives. Then, it also outlined the scope and significance of the research. The next chapter will elaborate on the underpinning theories of the research and review the related variables in this study.

Chapter 2: Literature Review

2.1 Introduction

In addition to market drivers, both marketers and web developers have largely contributed to the rapid growth of the e-commerce marketplace. The innovation of live streaming on the e-commerce marketplace does enhance not only the display of information but also the effectiveness and efficiency in promoting information delivery. With the personalized guidance of broadcasters, e-commerce live streaming allows more real-time interaction (Wongkitrungrueng & Assarut, 2020; Zhang et al., 2020). This has openly alternated the path for marketers to channel their products and services, especially during the peak of the COVID-19 pandemic. Furthermore, Malaysian consumers value connection (Hofstede Insights, 2022). Hence, this study aimed to examine the repurchase intention in e-commerce live streaming from the lens of relational bonds

This study reviewed the Stimulus-Organism-Response (SOR) model. The next section then discussed the existing literature pertaining to repurchase intention, consumer satisfaction, consumer engagement and relational bonds. In the subsection of relational bonds, the researcher downs scoped into financial bonds, social bonds, and structural bonds. The researcher also reviewed literature themed live streaming. Lastly, the hypotheses and conceptual framework were developed based on a systematic literature review.

2.2 Theoretical Underpin

This section explained the Stimulus-Organism-Response (SOR) model and its practicability to examine the relationship between relational bonds, consumer satisfaction, consumer engagement and repurchase intention.

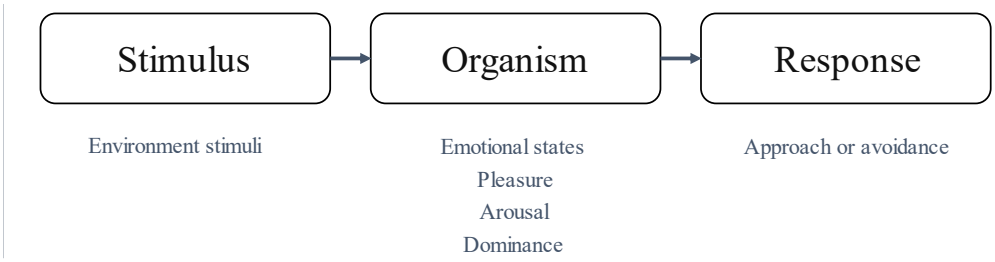
2.2.1 Stimulus-Organism-Response (SOR) model

The Stimulus-Organism-Response (SOR) model is an extensive environmental, psychological model proposed by Mehrabian & Russell (1974a). The SOR model integrated the study of synaesthesia, physiological reactions and sematic differential on the foundation of Input→Output model (Mehrabian & Russell, 1974b). As per the name suggested, the model consisted of three parts, namely the environmental motivation (Stimulus), the emotional state (Organism) and the behavioural action or outcome of the process (Response). To better understand Organism, Mehrabian & Russell (1974b) explicitly described one's emotional state from three different dimensions, namely pleasure, arousal and dominance. Plus, the emotional state was rated on a scale at two extremes—for instance, happy-unhappy, comfortable-uncomfortable, satisfied-unsatisfied or agree-disagree. Then, the forthcoming Response suggested either approach or avoidance (Mehrabian & Russell, 1974a). An example of the approach-avoidance response was defined briefly as the willingness of one to do or not to do accordingly based on the variation of the organism. In brief, it suggested that human behaviour is influenced by the inner state that induced from external environment (Mehrabian & Russell, 1974a). The flow of SOR model is illustrated in Figure 2.1.

As this study explored a contemporary norm in digital era, the SOR model comprising of stimulus, organism and response is more tolerant and applicable in building the research foundation. Added with the wide

application of SOR model in previous literature, the SOR model is cogently practical to investigate the relationship of repurchase intention via relational bonds in e-commerce live streaming.

Figure 2.1: Stimulus-Organism-Response (SOR) model



Source: Mehrabian, A., & Russell, J. A. (1974a). *An approach to environmental psychology*. The MIT Press.

2.3 Repurchase Intention

Repurchase, as the name suggested, is to make a repeat purchase, while the intention is the willingness to do so. It measures the possibility of consumers making multiple purchases from the same online retailers in the context of e-commerce (Antwi, 2021). Specifically, in this study, repurchase intention refers to the consumers' willingness to generate repeat orders with the broadcaster. As far as repurchase intention is warranted, it is important to outline the differences between purchase and repurchase. The presumption of the repurchase is that consumers have made a previous transaction (Graciola et al., 2018). Unlike in purchase intention circumstances, consumers in a repurchase situation already have first-hand experience with the businesses. The experience gained from the previous purchase is considered an alternative source of information in the decision-making process. Thus, online purchase intention can be defined as a consumer's subjective probability of performing a specific purchasing behaviour over the Internet for the first time, whereas repurchase intention can be defined as a consumer's subjective probability of revisiting an online store (Chiu et al., 2012; Sullivan & Kim, 2018).

Though numerous literature studies attempted the economic benefits of repurchase intention, not many addressed it from the core marketing concepts. According to (Oliver, 1999), the marketing funnel mapped the pipeline of the customer journey from awareness, consideration, conversion, and loyalty to advocacy. When moving down the funnel, there is an increase in consumer behavioural commitment (Patterson, 2007). Therefore, the prediction of customer lifetime value can be measured by numerical metrics like repurchase frequency (Colicev et al., 2019). In light of this, it explained the importance of repurchase intention from the marketers' view.

2.4 Consumer Satisfaction

One of the primary strategies for sustainable business growth is consumer satisfaction because happy customer spends more (Kumar et al., 2017). In an earlier study, a vague definition given to consumer satisfaction is the cognitive evaluation of purchase decisions (Oliver, 1980). Agree with the argument by Swan & Combs (1976), that is, the consumers perceive satisfaction when product and service performance fulfils their expectations, and vice versa. Recently, a generally accepted definition for the term "consumer satisfaction" is the consumers' evaluation of an experience that leads to emotional content or enjoyment (Kasiri et al., 2017; Kumar, 2021).

Summarized in previous literature study, consumer value and consumer cost are significant contributory factors to the level of consumer satisfaction (Chi Lin, 2003). It is the product of perceived importance and perceived sacrifice to consume particular goods and services. If the perceived importance is greater than the perceived sacrifice, it is asserted that consumers tend to enjoy consuming the offerings. On the other hand, consumer satisfaction deteriorates when the perceived sacrifice has greater weightage than perceived importance.

2.5 Consumer Engagement

Consumer engagement is a useful alternative metric in defining consumer experience. Some may name it consumer commitment as well. As time evolves and technology improves, consumer engagement has various definitions by different scholars. Historically, (Algesheimer et al., 2005) describes consumer engagement as the contribution towards a single community, provided that consumer consider the integration of both parties as one. Then, a significant evolution in consumer engagement appeared as social media emerged. Tsai & Men (2013) categorized consumer engagement into three different levels, namely the consumption of content, contribution to content and creation of content. Whilst there is an argument in defining consumer engagement. Consumer engagement was then defined as participation and cooperation with the big environment and not limited to businesses only (Hsu et al., 2012). Simultaneously, several scholars entailed that consumer engagement involves large co-creation value with both consumers and businesses (Cheung et al., 2021; Jaakkola & Alexander, 2014; Yen et al., 2020). Along with the similar voice, consumer engagement was largely bonded with co-creation value and co-destruction value (Zhang et al., 2018). Another distinctive interpretation of consumer engagement arose as "consumer's positively valanced brand-related cognitive, emotional and behavioural activity during or related to focal consumer/brand interactions" (Hollebeek et al., 2014; Hollebeek & Macky, 2019; Vohra & Bhardwaj, 2019). Summarizing the perception of consumer engagement, commonalities addressed by the previous scholars are participation and interaction that involves more than a single party. Adopting the definition by Clement Addo et al. (2021), consumer engagement is generally defined as the consumers' real-time participation, connection and interaction during the activities conducted with the broadcasters, specifically in the setting of live streaming.

2.6 Relationship Marketing

Historically, the term ‘relationship marketing’ was mostly defined as the establishment, maintenance and enhancement of relationships between consumers and businesses, enabling both parties to achieve a mutual objective (Gronroos, 1990). It can also be considered an interactive marketing strategy supported by the 4P marketing mix (Product, Price, Place, Promotion) in the long run (Gronroos, 1994). The scholar asserted that relationship marketing is the compensation for downfalls in transactional marketing (Gronroos, 1994). Berry (1995) echoed that with the importance of relationship marketing, that is, to attract or retain customers through “need-meeting character”. It is evident that relationship marketing matters the exchange of relationships.

Due to the Industrial Revolution 1.0, which exposed globalization, technological innovation, and information revolution in the late 1990s, the growing market economy had unquestionably pressurized the marketers to improve efficiency and lower costs of making business (Laudon & Traver, 2017). With that, the innovative idea of enhancing service quality through relationship marketing has brought relationship marketing into the lens of marketers to counterattack the dynamic changes. Acknowledging the fact that marketing gradually involves intensive participation of consumers in the market environment, a paradigm shift to customer orientation in marketing strategies is gaining interest as if the marketers are to satisfy the customer better by closing the relational gap (Aijo, 1996; Gronroos, 1994).

As the integration persists to expand worldwide, previous literature study found difficulty in practising relationship marketing across east-west countries due to the collision of cultures (Shaalan et al., 2013). A recent study added that relational factors in different countries' settings would affect consumer behaviour distinctively (Nyadzayo et al., 2020). Interestingly, it still permits a certain extent of opportunities for practising relationship marketing as a global business strategy despite the cultural conflicts between east-west settings (Leonidou & Hultman, 2019). Thereafter, it

highlighted the importance of noting cultural variations in adopting relationship marketing.

Not only that, the effect of digitalization and digitization is expected to challenge the practice of relationship marketing. Recent research silenced the assumption with convincing findings, proving that disruptive innovations like the Internet of Things can solidify the relationship between businesses and consumers by satisfying the demanding consumers (Lo & Campos, 2018). Similarly, a statistical study conducted during the COVID-19 pandemic proved that interaction enabled by information technology significantly motivated the formation of relationships (Alalwan et al., 2021). It shed light on the possibility of computerised interaction to build a connection with consumers and businesses. To sum up, relationship marketing, as a helping hand to enhance value on core offerings, integrates both consumers and businesses as one despite the cultural and digital challenges.

2.6.1 Relational Bonds

According to Merriam-Webster (n.d.), “bond” is defined as “a uniting or binding element or force”. Meanwhile, a more precise definition of bond powered by the Oxford dictionary is “a relationship between people or groups based on shared feelings, interests, or experiences” (Lexico, n.d.). Specifically, in the social science context, “bond” is usually used to refer to ‘the psychological, emotional, economic, or physical attachments in a relationship that are fostered by association and interaction and serve to bind parties together under relational exchange’ (McCall, 1970). Despite the minimal variance in defining bonds among scholars, it is important to summarize that the formation of a bond engages two different parties and involves the exchange of relationships.

Precisely in relationship marketing, the bond is the key to converting disengaged consumers into committed ones (Berry & Parasuraman, 1991). Solid bonds between consumers and businesses minimize the chances associated with voluntary exchange relationships and lay the basis for a healthy relationship. Varying from the type of bonds, they are distinctive based on the degree of customisation and potential for sustained competitive advantage. Adapting the concept by Berry (1995), relationship marketing is developed by financial bond, social bond and structural bond.

2.6.1.1 Financial Bond

Relationship marketing relies primarily on financial bond. A financial bond can be defined as a relationship founded on business practice with a strong intention to help the consumers to save money (Chiu et al., 2005; Gu et al., 2016; Hu & Chaudhry, 2020). It often encompasses the offering of financial incentives, likewise, discounts and special price offers (Berry, 1995). Viewing from the lens of the affective effect of price discounts, it asserted that consumers perceive positive emotions like enjoyment in seeking the best price, accomplishment to pay at a reduced price after a bargain or happiness as if they are the smart shoppers (Cox et al., 2005; Guha et al., 2018; Mano & Elliott, 1997; Peine et al., 2009). Nevertheless, the financial bond is characterized by a low degree of service customisation as well as a low potential for sustained competitive advantage (Berry, 1995). In a logical sense, the financial bond is prone to price erosion. As the competitors have a greater number of resources or greater capability in managing their resources efficiently, one may then lose its competitive advantage to compete on pricing. Even if financial incentives would attract more

consumers and grow the earnings quickly in the short run, businesses might be on the edge of a price war gradually (Krämer et al., 2016).

2.6.1.2 Social Bond

Next, a social bond considers the business transaction as a social encounter (Berry, 1995). Social bonds are defined as social ties that involve vast personalisation and customization of interpersonal communication and interactions (Berry, 1995; Hu & Chaudhry, 2020; Smith, 1998). It is established when businesses constantly stay connected and provide sufficient support and advice to the consumers during the transaction (Chiu et al., 2005; Gu et al., 2016; Yeh et al., 2018). A social bond is characterized by a moderate degree of service customisation and potential for sustained competitive advantage (Berry, 1995).

Social presence introduces the preliminary foundation of social bonds. Historically, social presence refers to face-to-face communication or physical interaction. Catering to digital disruption, the most significant social presence online is presented via live streaming. It enables the greatest extent of personalised and responsive interaction (Yoo & Alavi, 2001). Social presence with the characteristic of perceptual, subjective and intersubjective results in a substantial increase in trust, satisfaction and affective commitment (Lazard et al., 2020; Baozhou Lu et al., 2016).

2.6.1.3 Structural Bond

According to Berry (1995), structural bond refers to the structural solutions to attract and retain consumers by providing valuable sources

and services. Later, the structural bond is further defined as the offering of value-adding advantages, resulting in costly switching barriers (H. C. Chiu et al., 2005; Hu & Chaudhry, 2020; Yeh et al., 2018). It is worthwhile to note that structural bond encompasses a medium-to-high degree of service customisation and a high potential for sustained competitive advantage (Berry, 1995). The establishment of a structural bond comes in all forms, including rules and regulations, governmental structure, physical and virtual infrastructure or the quality of services delivery (Berry, 1995; Yeh et al., 2018). Interestingly, the scholars reached a consensus that the structural bond requires an ample amount of monetary capital and time investment (Chang et al., 2021; Chiu et al., 2005; Gu et al., 2016; Hu & Chaudhry, 2020; Smith, 1998; Yeh et al., 2018).

In recent years, consumers are getting sensitive to hard sales marketing and gaining extensive internal motives to seek informative content (Hollebeek & Macky, 2019). This explained that consumers prefer to acquire additional knowledge, experience, and service in a relevant field other than product information. Therefore, information search becomes one of the key stages in decision making. Additionally, it has demonstrated that the informational value of digital content outperforms in encouraging trust (Lou & Yuan, 2019). Coincidentally, the sharing of useful information among key opinion leaders is trending. This has no doubt eased the process of information search, especially when a vast amount of data is flowing across the Internet. The utility of useful information is owing to the perceived authenticity or expertise (Uzunoğlu & Misci Kip, 2014). Hence, it is clear to be seen that the formation of structural bond incorporates not only the fundamental product and services but also the supplementary value evolving around businesses.

2.7 Live Streaming

The study on live streaming is blooming in the body of literature. Summarizing the characteristics of live streaming, it is the real-time interaction between both parties simultaneously. As per the obvious benefits, the live streaming feature is then embedded into multiple channels. Thereafter, it is also a new mode of information delivery and marketing that enable the sellers to display sales item as well as the buyers to gain a more comprehensive understanding of the particular sales item (Su, 2019).

Nevertheless, the division between e-commerce live streaming and social commerce live streaming were not clearly defined. E-commerce and social commerce are distinctively different in a multitude of aspects, including consumer connection, consumer control, system interaction, business goal and website design (Huang & Benyoucef, 2013, 2015; Li & Ku, 2018; Shen, 2012; C. Wang & Zhang, 2012). In the previous study, numerous scholars have shown related findings on live streaming. Nevertheless, the research ignored the differences between e-commerce and social commerce by collecting data from both e-commerce and social commerce users (Park & Lin, 2020; Sun et al., 2019). It is debatable that the previous study is less sophisticate as consumers may have different purposes or motivation visiting certain platform. Accordingly, this study focused specifically on e-commerce live streaming.

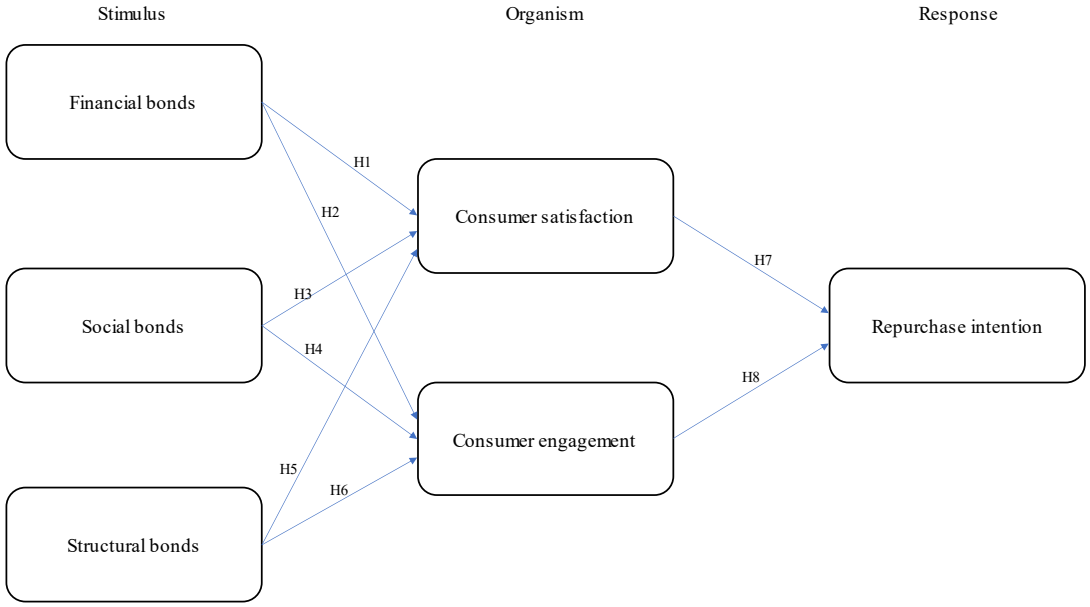
2.8 Conceptual Framework

This study adopted the Stimulus-Organism-Response (SOR) model to determine the linkage between relational bonds, consumer satisfaction, consumer engagement and repurchase intention.

As the new frontier, e-commerce live streaming is a useful feature that allows people to acquire a vast amount of information and interaction in real-time. The appearance of a broadcaster in a real person does not only proven to enhance consumers' trust to trade online but also creates significant brand distinctiveness (Arora et al., 2021; Wongkitrungrueng & Assarut, 2020). Thus, this study focuses on relationship marketing in enhancing repurchase intention.

Building on the foundation of relational bonds as core components in relationship marketing, while consumer satisfaction and consumer engagement were consistently associated with repurchase intention, this study hypothesized that both consumer satisfaction and consumer engagement is prerequisite to bringing in sales, profitability, and expanding or retaining market share. The conceptual framework developed for the study is illustrated in Figure 2.2.

Figure 2.2: Conceptual framework



Source: Developed for the study

2.9 Hypotheses Development

2.9.1 Stimulus-Organism

2.9.1.1 Financial Bond and Consumer Satisfaction and Consumer Engagement

Adhering primarily to the findings suggested by Mano & Elliott (1997), it asserted that consumers perceive to enjoy extra financial incentives for obtaining the product by joining the live streaming because of the limited offer or lower cost paid. It then triggers the excitement aligned with the utilitarian aspect of price, resulting in the sense of a smart shopper. Based on the literature reviewed, financial bond positively influences consumer satisfaction (Chen & Chiu, 2009; Gu et al., 2016). A recent study on e-commerce stores supported the claim with statistical evidence in which there is a positive relationship between price discounts and affective emotion (Lee & Chen-Yu, 2018). However, discrepancy appears as Yeh et al. (2018) found that consumers do not significantly perceive benefits from price discounts. Therefore, the financial incentives given may not reflect significant benefits to the consumers. With that, this study proposed a positive relationship between financial bond and consumer satisfaction.

H1. Financial bonds positively influence consumer satisfaction.

As live streaming allows real-time dual communication, consumers can bargain with the broadcasters when shopping at e-commerce live streaming. This encourages the consumers to interact with the broadcasters in order to obtain the same products at a lower price.

Supported by previous literature findings, it found that financial bond is significantly correlating to consumer engagement (Chang et al., 2021). By definition, consumers who are motivated by the discount are used to engage with the businesses behaviourally. Citing Chen et al. (2019), one of the respondents stated that "I recommended the restaurant because of the discount. The restaurant was not bad, but I think wouldn't do that if there was no discount." Howbeit, Hu & Chaudhry (2020) argued that consumers do not necessarily attract by financial incentives, especially for the experiential type of goods. In the same vein, scholars highlighted that consumer engagement hit its peak when external reward like discounts was not offered (Quach et al., 2020). Therefore, this study predicted a positive relationship between financial bonds and consumer engagement (Chang et al., 2021; Hu & Chaudhry, 2020).

H2. Financial bonds positively influence consumer engagement.

2.9.1.2 Social Bond and Consumer Satisfaction and Consumer Engagement

When broadcasters make friends with consumers by staying connected, providing support and showing empathy, the social bond is established (Chiu et al., 2005; Gu et al., 2016). The social tie between two parties keeps them together as one and makes them feel pleased with the overall relationship. The previous study supported that social bond has a positive effect on consumer satisfaction (Gu et al., 2016; Smith, 1998; Yeh et al., 2018). Despite that, a study by Chen & Chiu (2009) claimed that social bond does not correlate with satisfaction. The researchers argued that consumers are prone to feel isolated when shopping online and do not concern about personal touch. Also, the absence of social elements in e-commerce web design added to the insignificant

relationship between social bond and consumer satisfaction (Chen & Chiu, 2009). A serious weakness of this argument, however, is that digital transformation has compensated for the absence of social elements and upended the e-commerce experience. Nowadays, e-commerce live streaming has allowed the presence of broadcasters visually. In the meantime, e-commerce live streaming also initiated effective dual communication by consumers leaving comments and broadcasters making an instant reply. Thereby, this study presumed that there is a positive relationship between social bond and consumer satisfaction.

H3. Social bonds positively influence consumer satisfaction.

When social bond is established, consumers see the broadcasters as a friend. As such, they tend to disclose more and contribute more, that in turn solidifies the relationship. Chiu et al., (2005) confirm there is increasing participation when social bond is formed. The scholar added that broadcasters, which display friendly and down-to-earth characteristics and proactively learn the consumers' needs and wants, have a better capability in engaging the consumers. This is because consumers are more enthusiastic about participating in discussion or interaction online to compensate for the need for affiliation. Then, it implicitly helps the consumers to regulate their emotions and better at coping with stress (Matias et al., 2020). On a similar tone, Chang et al. (2021) and Hu & Chaudhry (2020) agreed that social bonds motivate engagement between both parties. Thus, this study hypothesized that consumers are better engaged when they feel noticed, important, and influential.

H4. Social bonds positively influence consumer engagement.

2.9.1.3 Structural Bond and Consumer Satisfaction And Consumer Engagement

Dates back when the Internet was just popularised, richer information available online suggests a higher level of consumer satisfaction (Peterson et al., 1997). High information quality in the online environment eases the research and comparison of goods and services (Ghasemaghaei & Hassanein, 2015). Therefore, structural bond that emphasises useful information promotes consumer satisfaction when making a decision on e-commerce live streaming. Similarly, previous literature studies found that structural bond enhances consumer positive emotional response (Chen & Chiu, 2009; Gu et al., 2016; Yeh et al., 2018). Thereby, it presumed that structural bond will positively influence consumer satisfaction.

H5. Structural bonds positively influence consumer satisfaction.

The constant delivery of comprehensive information motivates the development of co-creation value, hence, reducing the risk of consumers isolating themselves intentionally from the businesses (Diffley & McCole, 2015). Additionally, the establishment and maintenance of structural bond require the consumers to invest their time, effort and personal data (Chiu et al., 2005). Accordingly, it would be difficult to terminate the structural bond due to the cost and complexity of e-commerce. Similarly, a recent study on China population relating to e-commerce live streaming also found that structural bond has a positive impact on consumer engagement (Chang et al., 2021). For the abovementioned reasons, this study suggested there is a positive relationship between structural bond and consumer engagement.

H6. Structural bonds positively influence consumer engagement.

2.9.2 Organism-Response

2.9.2.1 Consumer Satisfaction and Repurchase Intention

In traditional marketing literature, consumer satisfaction has often proven to play an important role in spurring repurchase intention. This is owing to the fact that consumers are very likely to make continuous consumption when the product or services performance meets their respective expectations (Hoyer, 1984). In the same vein, there were numerous studies on e-commerce and social commerce supported the statement (Chiu & Cho, 2019; Shang & Bao, 2022). A broader perspective has been adopted by Chen & Chen (2017), who argued that the effect of consumer satisfaction on repurchase intention is way more complicated than the general statement. In the same way, supportive evidence by Mcdougall & Levesque (2000) stated that consumer satisfaction does not necessarily lead to repurchase intention when uncertainty arises. Overall, this study proposed that repurchase intention will stem from consumer satisfaction.

H7. Consumer satisfaction positively influences repurchase intention.

2.9.2.2 Consumer Engagement and Repurchase Intention

Marketers have long focused on consumer engagement in order to encourage repurchase intention. Earlier studies described the process of

consumer engagement in developing repeat purchase consumers (Bowden, 2009). It explained that high consumer engagement produces some ‘stickiness’ that can be traced to making continued purchases. Similarly, previous literature studies also supported that businesses tend to earn multiple earnings from a single lead when they engage the consumers in their operation (Lee et al., 2019; Pansari & Kumar, 2017; Thakur, 2016, 2018). With that, this study hypothesized a positive association between consumer engagement and repurchase intention (Thakur, 2016).

H8. Consumer engagement positively influences repurchase intention.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

The term methodology is used for diverse fields of research to define the methods of collecting, analysing, and reporting data (McGregor, 2018). This chapter outlines the methodology used in this research to collect data for analysis. It covers the research design, sampling procedure, data collection and questionnaire development.

3.2 Research Design

Simply put, a research design is a strategic plan of study to satisfy research objectives (Schindler, 2019). It can also be understood as a manner to conduct research by testing the specific elements and applying reciprocal procedures. Schindler (2019) stated that a comprehensive research design should be a comprehensive plan that focuses on a specific research question, guides the selection of sources of information and provides a framework indicating the relationships among each variable.

Preliminary, it is important to determine the approach to theory development. The research approach should consider the relationship between theory and data and discuss in terms deduction, induction and abduction (Kennedy, 2018). Deduction underpins a specific theory and examines the extent of support by the data collected; if the premises are true, the conclusion is true (Kennedy, 2018; Saunders et al., 2019; Thornberg & Charmaz, 2014; Zikmund et al., 2010). Induction requires a set of empirical cases to understand the pattern of behaviour to explain an untested statement (Kennedy, 2018; Saunders et al., 2019; Thornberg & Charmaz, 2014). Abduction makes inferences with known premises and engenders a verifiable conclusion, making slight differences with induction by generalising the interactions between the specific pattern and the general

one (Saunders et al., 2019). Particularly in social science study, deduction and induction are widely adopted. Therefore, this study employed the deduction method of reasoning on the foundation of the SOR model.

Secondly, the methodological decision is whether to do a quantitative, qualitative, or mixed techniques study. The most distinctive characteristic to distinguish between quantitative and qualitative is numeric data or non-numeric data (Saunders et al., 2019). Quantitative research requires the collection of data in numerical and standardised data and analyses of data statistically (Saunders et al., 2019). The results usually are usually derived in numerical values and can be presented in visual diagrams (Saunders et al., 2019). On the other hand, qualitative research engages a variety of forms of data but is not limited to numbers (Saunders et al., 2019). This may imply a vague meaning that further requires the researcher to make clarifications and cognitive interpretations with the targeted respondents. As far as mixed-method research is concerned, it integrates both methods in one research study. The research methodology choices between qualitative and quantitative are often being argued. Those who support qualitative research argue that flexible procedures in qualitative research enable a wide variety of information to be collected yet may be at risk of the researchers' subjective interpretation of data (Zikmund et al., 2010). Whereas quantitative research mainly involves quantifiable results under the assumption of zero computation of data and allows a more statistical interpretation as compared to qualitative research (Frey, 2018; Zikmund et al., 2010). This study employed the quantitative research design for neutral, objective results and interpretation of research.

Scholars also further classified the research by purpose of understanding the nature of a decision, including exploratory, descriptive, explanatory and evaluative (Salkind, 2010). The purpose of research can be broadly classified into two; exploratory and descriptive that categorised under correlational research and investigates the relationships among variables, while explanation or evaluation measures causal relationships (Salkind, 2010). Under the umbrella of causal research, this study employed explanatory research. Causal-explanatory research is purported to examine

the theory that describes the cause-and-effect relationships between variables (Salkind, 2010). The cause-and-effect relationship is often defined as the relationship between two norms, with one influencing the other (Salkind, 2010; Schindler, 2019). By providing the direction, strength, and causal sequence between variables, the explanatory research helps the researchers to determine the validity of the hypothesis proposed (Salkind, 2010). This study employed causal-explanatory research to examine the relationship between relational bonds and consumer repurchase intention on live streaming.

The objective of this study was to determine the relationship between relational bonds and repurchase intention in the context of live streaming. Given that, this research was founded on the SOR model and developed research hypotheses. Moreover, this study employed quantitative research and applied the deductive approach to rationale the results of research based on theoretical application. The theories and variables or construct items were well-established, so the deductive approach was adapted. A large sample size was required and presented in numbers, so the quantitative research was implemented.

3.3 Sampling Procedure

Sampling is defined as the strategy to select individuals or things from a population (Farmer & Farmer, 2021). It is difficult to conduct research on the population because of time constraints and limited information about the targeted population in the real world. Thus, sampling is used to represent the targeted population and overcome the scarce resources while associated with gathering quality data (Knapp, 2017). The findings of the study help to comprehend the trend and pattern of behaviour and generalize the result to the entire population (Knapp, 2017). With that, it is important to define the targeted population, determine the sample size and follow the suitable sampling method.

3.3.1 Population

Before conducting research, it is essential to identify the population of interest. The population is the entire realm of people that consists of the whole domain of interest (Knapp, 2017). The population in this study was defined as all active Internet users in Malaysia. As of July 2021, the Department of Statistics Malaysia reported that the percentage of active Internet individuals achieved 89.6% among the Malaysian population (Mohd, 2021a). The active Internet users were the targeted populations of this study.

3.3.2 Sampling Technique

The two major methods of sampling are probability and non-probability sampling. Probability sampling allows a defined determination of chance that one can share in participating in the study, while non-probability sampling implies that the sample is selected without a predetermined probability (Farmer & Farmer, 2021; Knapp, 2017; Zikmund et al., 2010). This study employed non-probability sampling for the ease of data collection.

Under the umbrella of non-probability sampling, it includes convenience sampling, purposive sampling, quota sampling and snowball sampling. Convenience sampling usually refers to whoever is readily available and suits the characteristic of the target population (Knapp, 2017). Purposive sampling is adopted when most of the target population would not fulfil the required characteristic fully. Therefore, it involves participants who manage to fulfil one or few criteria mentioned (Knapp, 2017). Quota sampling is applied by appointing a

certain quota to the interviewers to select matching respondents for the survey (Lewis-Beck et al., 2004). In contrast, snowball sampling identifies the first respondent and continues the survey by approaching another one in a similar social circle (Knapp, 2017). Convenience sampling has been proven for a list of practical advantages. With convenience sampling, the researcher does not require a list of the targeted population and saves the expenses for travel, monetary cost, and time (Frey, 2018). Nevertheless, it is debatable that convenience sampling is often accompanied by research biases like sampling error and under coverage (Frey, 2018). Scholars also provided a few suggestions to overcome the possible weaknesses of adopting convenience sampling, including the demographical profile of samples in detail (Frey, 2018). Since convenience sampling has been widely adopted in recent years study and is easier for data collection, adding to its effectiveness in collecting a large sum of data, this study adopted the convenience sampling method.

3.3.3 Determination of Sample Size

The determination of the required sample size is critical to ensure the validity and reliability of the research. Logically, the larger the sample size, the lower the margin error in generalising the population (Saunders et al., 2019). Over the years, there have been several methods proposed for deciding the sample size. Sample size can be determined by employing consecutive sampling or selecting all available cases in a given period of time, or imitating the sample size given based on the previous study (Omair, 2014). Alternatively, the sample size should include 50 or 100 units depending on the resources available (Omair, 2014).

Another mainstream manner of determining sample size for research activities according to the population size was proposed in the early 1970s (Krejcie & Morgan, 1970). A part of the sample size table is shown in Table 3.1. If the target population exceeds 1,000,000, a minimum sample size of 384 is necessary, with a margin of error of 5% and a confidence level of 95% (Krejcie & Morgan, 1970).

Table 3.1: Sample Size Table

Population	Sample	Population	Sample	Population	Sample
4000	351	8000	367	30000	379
4500	354	9000	368	40000	380
5000	357	10000	370	50000	381
6000	361	15000	375	75000	382
7000	364	20000	377	1000000	384

Adapted from: Krejcie, R. V, & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, *30*(3), 607–610.

This research adopted the sample size computation method proposed by Cochran (1977) out of the various method available. Generally, the determination of sample size measures the population variance, the magnitude of error within an acceptable range, and the confidence intervals (Cochran, 1977). The identified population proportion of active Internet users in Malaysia at 89.6% (Mohd, 2021a). With 95% confidence and a margin error of 5%, the z score derived was 1.95. Given that, the sample size was 143.19. The sample size of target respondents was rounded off to 144. The working of sample size computation is illustrated in Figure 3.1.

Figure 3.1: Sample size computation

$$n = \frac{z^2pq}{e^2} = \frac{z^2p(1-p)}{e^2}$$

$$= \frac{1.95^2(0.896)(1-0.896)}{0.05^2}$$

$$= 143.19$$

$$\approx 144$$

Source: Developed for the study

3.4 Data Collection

Data collection is the process of collecting data and information for analysis purposes. Research instruments played an important role in collecting data. A research instrument is the main tool used to extract information from the respondents (Schindler, 2019). It can appear in all forms but should always include a list of questions that are built using multiple scale options, as well as an introduction, section transitions, instructions, and a conclusion (Schindler, 2019). In broader terms, survey research usually refers to the collection of data of the respondents about opinions and behaviour on a particular research topic. Noteworthy, the survey research using questionnaires is a commonly used in the social science discipline in recent years (Zina, 2021).

All data in this research were collected through the primary sources. The primary data collection allows greater flexibility in fulfilling the research objectives (Mazzocchi, 2011). Plus, the researcher shall bear greater responsibility to ensure the quality of data collected (Mazzocchi, 2011). This research adopted the online questionnaire for its obvious benefit in terms of cost and time (Fielding et al., 2017). In addition, the online questionnaire is most suitable for the large group of targeted respondents since the current research was founded on consumer behaviour on e-commerce live streaming.

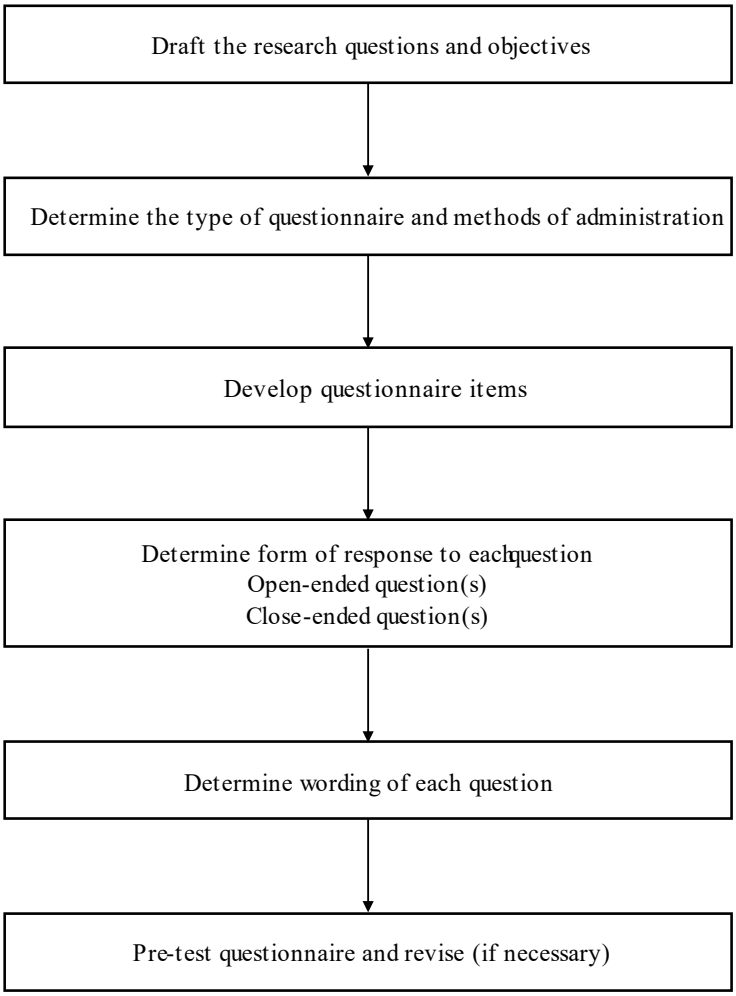
Besides, Ibert et al. (2011) suggested that online questionnaires standardize and compare scales while preserving the maximum extent of respondents' anonymity.

A structured questionnaire concerning e-commerce live streaming experience, relational bonds, consumer satisfaction, consumer engagement and repurchase intention was developed and created on Google Forms. The entire process of data collection took about two months (December 2021 to January 2022). The respondents were required to rate from one to seven on a Likert scale. The link to the online survey was widely distributed via the Internet on social media to acquaintances of the researcher.

3.5 Questionnaire Development

The questionnaire must be constructed if the researcher expects organized information from the respondents. By asking the right questions, it provides the researcher with reliable and valid information to validate the research, make decisions, and provide suggestions (Peterson, 2013). The researcher strictly adhered to the framework proposed by Churchill & Illinois (1976) for constructing effective questionnaires. The steps in constructing a questionnaire are illustrated in Figure 3.2. Notably, the researcher had opted for the close-ended questions, which provided the respondents with a fixed range of options to choose. The respondents were required to answer category questions and scale questions only.

Figure 3.2: Steps in Developing a Questionnaire



Source: Churchill, G. A., & Illinois, J. H. (1976). *Marketing research: methodological foundations*. The Dryden Press New York.

In order to collect useful information for this research, the development of construct items was referred from the review of literature related to relevant topics. The researcher adopted and modified several items from existing literature to fulfil the context of e-commerce live streaming. The modified questionnaire items accompanied by their respective author(s) of adapted sources were tabulated as below.

Table 3.2: Items Measurement with its Adopted Sources

Construct	Variable	Items Measurement	Adapted Sources
Repurchase Intention (RI)	RI1	If I could, I would like to continue shopping through my most visited e-commerce live stream to buy products.	(Benjamin et al., 2016; Du et al., 2020; Shahbaz et al., 2020; Tandon et al., 2020)
	RI2	It is likely that I will continue buying products from my most visited e-commerce live stream in the future.	
	RI3	I intended to continue buying products from my most visited e-commerce live stream in the future.	
	RI4	If I need to buy products in the future, I would probably revisit my most visited e-commerce live stream.	
Consumer Satisfaction (CS)	CS1	I like to buy during the e-commerce live stream	(Tandon et al., 2020)
	CS2	I am pleased with the experience of buying products during the e-commerce live stream	
	CS3	I think that buying products during the e-commerce live stream is a great idea	
	CS4	I am satisfied with the overall experience with my most visited during the e-commerce live stream	
Consumer Engagement (CE)	CE1	I spend more time on e-commerce platform that have live stream.	(Wongkitrungrueng & Assarut, 2020)
	CE2	I would become a fan and a follower of the e-commerce platform that uses live streaming.	

Construct	Variable	Items Measurement	Adapted Sources
	CE3	I would be likely to try and keep track of the activities of a seller that uses live stream on e-commerce platform.	
	CE4	I am likely to revisit the e-commerce platform to watch their new live stream in the near future.	
	CE5	I am likely to recommend a seller that uses live stream on e-commerce platform to my friends.	
Financial Bonds (FB)	FB1	The broadcaster offers discounts to regular consumers during the live stream	(Hu & Chaudhry, 2020)
	FB2	The broadcaster offers discount coupons to encourage future purchases during the live stream	
	FB3	I can receive additional discounts if I buy more during the live stream	
	FB4	The broadcaster often provides special incentives during the live stream	
	FB5	Transactions via live streaming activities can receive premiums or special offers	
Social Bonds (SB)	SB1	The broadcaster pays attention to my needs during the live stream	(Hu & Chaudhry, 2020)
	SB2	When I am watching, the broadcaster knows I pay attention to him/her during the live stream	
	SB3	When I am watching, the broadcaster reacts to what I say during the live stream	

Construct	Variable	Items Measurement	Adapted Sources
	SB4	The broadcaster often recommends products to me during the live stream	
	SB5	On special days, the broadcaster sends greetings or virtual gifts to me	
Structural Bonds (TB)	TB1	The broadcaster answers my questions professionally during the live stream	(Hu & Chaudhry, 2020)
	TB2	I can receive prompt responses when I have difficulties or complaints during the live stream	
	TB3	I can get clear and detailed information about products that I need during the live stream	
	TB4	The broadcaster provides valuable information about products to help me make decision during the live stream	

Source: Developed for the study

3.5.1 Pilot Test

A pilot test, defined as a small-scale research project that collects data from respondents, is useful to fine-tune the survey questions and research objectives (Zikmund et al., 2010). It mainly serves as a guide for a larger study to ensure the selected procedures will work as planned (Zikmund et al., 2010). It is purported to validate the question items. For this purpose, a pilot test was conducted by distributing the online questionnaire to 30 respondents to ensure a high level of logical consistency, ease of understanding and context suitability. The decision

of 30 respondents for the pilot test is aligned with the Central Limit Theorem. It suggested that 30 samples are the minimal sample size that tends to be normally distributed (Kim, 2015).

3.6 Data Analysis Technique

There were several measurement methods applied to test the reliability and validity of construct instruments. Then, the researcher conducted partial least squares structural equation modelling (PLS-SEM) to test the hypotheses developed.

3.6.1 Analysis Method

Data analysis was performed using both Statistical Package for Social Science (SPSS) and SmartPLS 3.0 software. In this study, SPSS software was mainly applied to descriptive analysis, covering respondents' demographic profiles and e-commerce live streaming experience. At the same time, PLS-SEM was conducted to perform inferential analysis specifying the relationships among latent variables and the extent of empirically confirm of those relationships as far as PLS-SEM has been slowly gaining popularity in varied fields of study, especially marketing. It has proven to be useful in understanding and explaining theory with conceptual variables and theoretical models (Hair et al., 2011; Sarstedt et al., 2016). Precisely, Sarstedt et al. (2016) defined those observed variables that direct relationships to its underlying construct as indicators. An instance drawn for this study was the extent of willingness to continue shopping through the most visited e-commerce live stream to buy products (indicator) contributes to repurchase intention (latent variable). Additionally, the term 'latent variable' is generally understood to mean conceptual variables or

constructs in a structural equation model (Sarstedt et al., 2016). The latent variable can be further broken down into more concrete subsections. An exogenous variable is often used interchangeably with an independent variable, similarly applied to an endogenous variable with a dependent variable (Hair et al., 2017). Financial bond, social bond and structural bond (exogenous variables) were hypothesized to influence consumer satisfaction, engagement and repurchase intention (endogenous variables) in this study.

3.7 Evaluation of Measurement Model and Structural Model

This research assessed the measurement model and structural model. A more detailed account of the evaluation criteria for the measurement model and structural model was given in the following section.

3.7.1 Measurement Model Assessment

According to Hair et al. (2017), the initial assessment of PLS-SEM relies on the measurement model. The researcher should examine the reliability and validity of multiple variables to ensure the constructs are within an acceptable range for consistency and accuracy. In the following subsections, the rules of thumb of internal consistency, indicator reliability, convergence validity and discriminant validity were discussed.

3.7.1.1 Internal Consistency Reliability

PLS-SEM software provides several approaches to assess internal consistency reliability. Traditionally, Cronbach's alpha is adopted to estimate the reliability of latent variables, holding the assumption that all indicators are equally reliable (Hair et al., 2017). Cronbach's alpha is commonly used to measure the internal consistency when there are multi-items measurement instruments (Cronbach, 1951). In general, the greater the value of Cronbach Alpha, the higher the reliability tested for that particular construct. Although the acceptable threshold for Cronbach's alpha is often debated among scholars from various backgrounds and the acceptable range of Cronbach's alpha determined remains vague, a generally accepted rule of thumb is tabulated below (Van Griethuijsen et al., 2015).

Table 3.3: Rule of Thumb for Cronbach's Alpha

Cronbach's alpha	Label
0.9 and above	Excellent
0.8-0.9	Adequate
0.7-0.8	Marginal
0.6-0.7	Seriously suspect
0.6 and below	Totally unacceptable

Source: Zeller, R. A. (2005). Measurement error, issues and solutions. In *Encyclopedia of Social Measurement* (pp. 665–676).

Due to its assumption of equal indicator loading and insensitive flaw, Cronbach's alpha often underrates the internal consistency reliability (Hair et al., 2017). Similarly, Rho A (ρ_A), proposed by Joreskog & Van Thillo (1971), is considered another alternative to compensate for the insensitivity of Cronbach's alpha (Dijkstra & Henseler, 2015). Additionally, composite reliability is mostly referred to as it considers the weightage of outer loadings of the indicators. The composite

reliability works similarly to Cronbach's alpha. The higher the value, the greater reliability it projects. The value of composite reliability with its respective level of acceptance is listed in Table 3.4. Notably, composite reliability greater than 0.95 is considered undesirable for its high tendency to result in inflated correlations (Hayduk & Littvay, 2012).

Table 3.4: Rule of Thumb for Composite Reliability

Composite reliability	Label
0.95 and above	Undesirable
0.7-0.90	Satisfactory to good
0.6-0.7	Acceptable (Specifically for exploratory research)
0.6 and below	Totally unacceptable

Source: Hair, J. F. J., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). Sage publications.

To sum up, composite reliability will be recorded and reported for its precision and robustness in analysing internal consistency reliability.

3.7.1.2 Convergent Validity

The broad use of the term 'convergent validity' is equated with the degree to which a measure correlates with other measures of the same construct (Hair et al., 2017). Simply put, it requires the indicators of specific variables to denote a high proportion of variance. In light of this, the outer loadings and the average variance extracted (AVE) matters.

The magnitude of outer loadings or indicator reliability should be 0.708 or greater than that (Hair et al., 2017). In most cases, 0.70, which is relatively close to 0.708, is also acceptable, while outer loading below

0.40 should, anyhow, be excluded from the variables (Hair et al., 2011). However, any indicator below 0.70, greater than 0.40, requires further analysis to decide on retention or deletion based on its improvement in the internal consistency reliability and AVE.

As far as AVE is concerned, the common rule of thumb is 0.50 or higher (Hair et al., 2011). The rationale of AVE should greater than 0.5 can be explained as there are at least half of the variance of the indicators existed among the indicators. A low AVE implies more variance remains in the error of the indicators, which in turn suggests low convergent validity.

3.7.1.3 Discriminant Validity

The term ‘discriminant validity’ suggests the differences from one construct to another. The cross-loadings and Fornell-Larcker criterion are traditionally used to estimate the discriminant validity. Conversely, the debate on the overall poor performance manages to stand with reasonable explanations. Scholars found that both cross-loadings and the Fornell-Larcker criterion do not provide reliable statistical evidence to detect discriminant validity issues (Henseler et al., 2015). Cross-loadings face complications when two constructs are perfectly correlated, while Fornell-Larcker criterion fails to indicate discriminant validity issues when the indicator loadings have minimal differences (Hair et al., 2017).

With that being, (Henseler et al., 2015) introduced the heterotrait-monotrait ratio (HTMT) to assess the ratio of the between-trait correlations to the within-trait correlations. It measures the true correlation between constructs if they are perfectly reliable (Hair et al.,

2017). The lower the HTMT value, the greater the discriminant validity. It is worthwhile to note that the threshold for HTMT remains debatable. The HTMT value below 0.85 may be considered a conservative approach, while HTMT ranging between 0.85 to 0.90 can be acceptable as well (Henseler et al., 2015). As debates on HTMT threshold value continue faring, the scholars recommended performing bootstrapping to derive bootstrap confidence interval. If the bootstrap confidence interval indicates the value of 1, the lack of discriminant validity is certain (Hair et al., 2017). Else, it suggests that the latent variables are distinctive from one another. In alignment with the suggestions given by Hair et al. (2017), this study primarily adopted the HTMT assessment.

3.7.2 Structural Model Assessment

Once reliability and validity are established, the subsequent procedure is to assess the structural model. This step involves the examination of relationships between latent variables with statistical evidence. Collinearity, significance and relevance of the structural model relationship, as well as the coefficient of determination, are explained in the following subsections.

3.7.2.1 Collinearity

Collinearity is assessed by the variance inflation factor (VIF). The threshold value for VIF is 5. A VIF value greater than 5 shows a collinearity issue as 80% of its variance can be explained by the remaining indicators associated with the same construct (Hair et al., 2011). If the results of the assessment indicate the presence of a collinearity issue, the researcher should consider managing the

collinearity issue. If the issue persists, it is advisable to dismiss the measurement model (Hair et al., 2017).

3.7.2.2 Path Coefficient

The path coefficient, often regarded as the standardized beta coefficient (β), suggests the hypothesized relationship among the latent variables. The value of path coefficients should range between -1 and +1 (Hair et al., 2017). Path coefficient closer to +1 indicates a strong positive relationship while -1 indicates a strong negative relationship (Hair et al., 2017). It can be further broken down into more detailed descriptions. The symbol represents the direction of the relationship, namely positive or negative. The numerical figure represents the strength of the relationship; the path coefficient closer to 1 has a strong relationship, and closer to 0 has a weak relationship (Hair et al., 2017). The path coefficient also implies the level of effect on endogenous variables by comparing one another (Hair et al., 2017). The greater the path coefficient, the stronger the weightage of influence carried by the exogenous variable.

Additionally, the empirical t-value and p-value are important guidelines for establishing the statistical significance of path coefficients. Both provide a reliable basis to either accept or reject the null hypothesis. As suggested by Hair et al. (2017), the t-value should be larger than 1.65, and the p-value should be smaller than 0.05 at a significance level of 5%.

3.7.2.3 Coefficient of Determination

The coefficient of determination can be defined as the R^2 value in the structural model. It explains the predictive power of the model and the level of variance in the endogenous variables linking with its respective underlying exogenous variables (Hair et al., 2017). The expected figure of the R^2 value should range from 0 to 1 (Hair et al., 2017). The greater the value, the more accurate the level of prediction. The rule of thumb for R^2 is tabulated as below.

Table 3.5: Rule of Thumb for Coefficient of Determination

Coefficient of determination (R^2)	Label
0.70	Substantial
0.50	Moderate
0.25	Weak

Source: Hair, J. F. J., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*.

3.8 Summary

This chapter describes the methodology conducted in this research. In brief, this research applied a deductive approach to reason the research results. The researcher employed a quantitative method and derived a sample size of 144 out of Malaysia's large active Internet users. Then, this research adopted a causal-explanatory manner to study the cause-and-effect between relational bonds and consumer repurchase intention. A questionnaire was developed and distributed online. The data analysis methods and key values to report were discussed.

Chapter 4: Data Analysis and Discussion

4.1 Introduction

Once data were collected from the respondents, it was statistically analysed for further interpretation. Data analysis involved several stages in transforming the raw data into useful information. This chapter describes the results of descriptive analysis and inferential analysis of data collected from the online survey questionnaire. Before the questionnaire was distributed to the targeted respondents, a total of 30 data was collected for the pilot test beforehand. Subsequently, the questionnaire was shared. After all, a total of 208 data was used for analysis to generalize the population. The analytical tools adopted were Statistical Package for Social Science (SPSS) Statistics and PLS-SEM.

4.2 Pilot Test Analysis

The pilot test was conducted by distributing a structured survey questionnaire online. The survey questionnaire was shared with the acquaintances of the researcher.

4.2.1 Demography of Respondent

Table 4.1: Demographic Profile of Respondents

Category	Item	Frequency	Percentage (%)
Gender	Male	15	50
	Female	15	50
Generational cohort	Baby boomers (58-76 years old)	0	0
	Gen X (46-57 years old)	1	3
	Gen Y (27-45 years old)	1	3
	Gen Z (18-27 years old)	28	93
Race	Malay	0	0

Category	Item	Frequency	Percentage (%)
	Chinese	27	90
	Indian	3	10
	Others	0	0
Highest level of education	Primary school	0	0
	Secondary school	2	7
	Diploma	1	3
	Undergraduate	27	90
	Postgraduate	0	0
Work status	Unemployed	20	67
	Self employed	3	10
	Employed	6	20
	Retired	1	3
Average monthly household income	B40 (RM5000 below)	20	67
	M40 (RM5000 – RM10,000)	10	33
	T20 (RM10,000 above)	0	0
Frequency of watching e-commerce live streaming	Rarely	23	77
	Occasionally	6	20
	Frequently	1	3
Time spent on average per session	Less than 1 minute	7	23
	1-15 minutes	20	67
	16-30 minutes	1	3
	30 minutes above	2	7

Source: Developed for the study

Table 4.1 summarizes the demographic information of respondents from the pilot test. In total, there were 30 respondents who participated in the pilot test. It can be clearly seen that the gender of respondents was equally distributed; there were 15 males and females, respectively. Most of them were aged between 18 to 27 years old (i.e. n=37, 93%) and obtained the highest academic achievement at the undergraduate level (i.e. n-27, 90%). There were primarily Chinese respondents (i.e. n=27, 90%). Furthermore, the majority of the respondents stated that they rarely watch e-commerce live streaming (i.e. n=23, 77%). Even if they watched, they only spent 1 to 15 minutes on average every time (i.e. n=20, 67%).

4.2.2 Reliability Test

The following table presents the Cronbach's alpha of each variable tested in this research. In total, 30 items were tested in the reliability test.

Table 4.2: Reliability Test

Variables	Cronbach's Alpha
Repurchase Intention (RI)	0.941
Consumer Satisfaction (CS)	0.922
Consumer Engagement (CE)	0.947
Financial Bonds (FB)	0.834
Social Bonds (SB)	0.903
Structural Bonds (TB)	0.898

Source: Developed for the study

The Cronbach's alpha for repurchase intention (RI) is 0.941, consumer satisfaction (CS) is 0.922, consumer engagement (CE) is 0.947. Whilst the Cronbach's alpha for each independent variable is 0.824 for financial bonds (FB), 0.903 for social bonds (SB) and 0.898 for structural bonds. All constructs fulfilled the least requirement of Cronbach's alpha of 0.6. This implied that items adopted for the survey questionnaire were reliable and consistent. The Cronbach's alpha of the constructs ranged between 0.834 to 0.947, indicating fairly adequate and excellent scale reliability.

4.3 Quantitative Data Analysis

Once the questionnaire was affirmed with high Cronbach's alpha, the questionnaire was further posted on various social media platforms to the acquaintances of the

researcher. A total of 227 responses were collected. Impractical data were removed at an earlier stage. The data were then edited and coded. Then, the data were inputted for further analysis. The following subsection explains the results obtained.

4.3.1 Data Editing and Coding

The study was conducted by sharing the link to Google Form. The collected responses were downloaded and saved in a comma-separated values (CSV) file. Then, the data editing process was performed by editing each question into a short label accordingly.

Subsequently, the data was entered into SPSS and coded appropriately. Section A concerning on demography profile of the respondents was coded with nominal measure. Then, all data for Section B and Section C were coded with scale measure for the adoption of the Likert scale. The values for the scale item are listed below.

Table 4.3: Code for Measurement

Item	Values
Gender	1 = Female
	2 = Male
Generational Cohort	1 = Baby boomers (58-76 years old)
	2 = Gen X (46-57 years old)
	3 = Gen Y (27-45 years old)
	4 = Gen Z (18-27 years old)
Race	1 = Malay
	2 = Chinese
	3 = Indian
	4 = Others
Highest Level of Education	1 = Primary school
	2 = Secondary school
	3 = Diploma
	4 = Undergraduate

	5 = Postgraduate
Work status	1 = Unemployed 2 = Self-employed 3 = Employed 4 = Retired
Average monthly household income	1 = B40 2 = M40 3 = T20
Frequency of watching e-commerce live streaming	1 = Never 2 = Rarely 3 = Occasionally 4 = Frequently
Time spent on average per session	1 = Less than 1 minute 2 = 1-15 minute(s) 3 = 16-30 minutes 4 = 30 minutes above
Platform used to watch e-commerce live streaming	1 = Shopee 2 = Lazada 3 = Zalora 4 = Taobao live 5 = Others
Products and services purchased from e-commerce live streaming	1 = Apparels 2 = Groceries 3 = Household Appliances 4 = Electric and Electronic Items 5 = Jewellery and Accessories 6 = Sports and Fitness Products 7 = Books, Information, And Magazines 8 = Computer-Related Products 9 = Gifts 10 = Games, Tops and Kids Playing Items 11 = Cosmetics and Beauty Aid 12 = Medical and Health Products 13 = Others
Scale item	1 = Strongly Disagree 2 = Disagree 3 = Somewhat Disagree

4 = Neutral
5 = Somewhat Agree
6 = Agree
7 = Strongly Agree

Source: Developed for the study

4.3.2 Data Cleaning and Transformation

Data cleaning is the process of making sure all data are correct by rectifying any possible errors. Data coded was checked, data inputted was checked and missing or incomplete data was removed. A valid response should (1) conform with the requirement of being an e-commerce live streaming audience and (2) be notified and agree to give consent to the researcher to process his/her personal data. Out of the 227 responses collected, the 19 responses were discarded as 18 of those respondents failed to meet the criteria as a live streaming audience during the data screening stage. They answered 'Never' for the frequency of viewing live streaming. Besides, there was one discarded response that failed to agree on the processes of personal data. In total, 208 sets of valid responses were adopted for further analysis.

4.3.3 Factor Analysis

The researcher conducted the factor analysis to explain the covariation among various observed variables by mapping the variables to latent constructs and developing a scale to examine if there is a redundant scale exists. There were 27 items categorized under six constructs being tested for the factor analysis. Specifically, there were five items under financial bonds (FB), five items under social bonds (SB), four items under structural bonds (TB), four items under consumer satisfaction

(CS), five items under consumer engagement (CE) and four items under repurchase intention (RI). All items tested for factor analysis ranged from 0.729 to 0.943, which has fulfilled the common rule of thumb, implying the standardized outer loadings should value more than 0.708. Therefore, no item was being extracted from the model.

Table 4.4: Factor Loading

Construct	Item	Loading
Financial bonds	FB1	0.804
	FB2	0.819
	FB3	0.772
	FB4	0.794
	FB5	0.824
Social bonds	SB1	0.842
	SB2	0.840
	SB3	0.845
	SB4	0.819
	SB5	0.729
Structural bonds	TB1	0.850
	TB2	0.862
	TB3	0.874
	TB4	0.902
Consumer satisfaction	CS1	0.889
	CS2	0.904
	CS3	0.904
	CS4	0.875
Consumer engagement	CE1	0.767
	CE2	0.923
	CE3	0.906
	CE4	0.906
	CE5	0.862
Repurchase intention	RI1	0.931
	RI2	0.943
	RI3	0.932
	RI4	0.898

Source: Developed for the study

4.4 Descriptive Data Analysis

The following section mainly discusses the demographic profile and e-commerce live streaming experience of respondents.

4.4.1 Demography of Respondents

The demographic profile of respondents was analysed from a few perspectives, namely gender, generational cohort, race, the highest level of education, work status and average monthly household income. Collecting data on the demographic background of the respondents assured that this research reached the right target respondents.

Table 4.5: Demographic Profile of Respondents

Characteristic		Frequency	Percent (%)
Gender	Female	136	65.4
	Male	72	34.6
Generational cohort	Baby boomers (58-76 years old)	4	1.9
	Gen X (46-57 years old)	10	4.8
	Gen Y (27-45 years old)	15	7.2
	Gen Z (18-27 years old)	179	86.1
Race	Chinese	182	87.5
	Indian	14	6.7
	Malay	10	4.8
	Others	2	1.0
Highest level of education	Diploma	16	7.7
	Postgraduate	13	6.3
	Primary school	1	0.5
	Secondary school	9	4.3
	Undergraduate	169	81.3
Work status	Employed	54	26.0

	Retired	3	1.4
	Self employed	19	9.1
	Unemployed	132	63.5
Average monthly household income	B40 (RM5000 below)	127	61.1
	M40 (RM5000 - RM10,000)	70	33.7
	T20 (RM10,000 above)	11	5.3

Source: Developed for the study

The results showed that there were more female respondents (i.e. n=136, 65.4%) over male respondents (i.e. n=72, 34.6%). The majority of respondents (86.1%) attended the survey aged between 18 to 27 years old, followed by Gen Y aged 27-45 years old (7.2%), Gen X aged 46-57 years old (4.8%) and baby boomers aged 58-76 years old (1.9%). According to the statistics, the respondents who attended the survey were mainly dominated by Chinese (87.5%), followed by Indian (6.7%), Malay (4.8%) and others (1.0%).

The respondents were considered fairly educated, with 81.3% undergraduate achievers, 7.7% diploma graduates, 6.3% postgraduate achievers, 4.3% secondary school graduates and 0.5% of primary school graduates. From the view of work status, 63.5% of the respondents were unemployed (i.e. n=132), followed by 26% of employed respondents (54), 9.1% of self-employed respondents (i.e. n=19) and 3% of retired respondents (i.e. n=3).

The respondents were mostly from B40 families with an average monthly household income of RM5,000 and below (61.1%), followed by M40 families with an average monthly household income ranging from RM5,000 to RM 10,000 (33.7%) and T20 families with an average monthly household income of RM10,000 above (5.3%). The demographic statistics of respondents were reported in Table 4.5.

4.4.2 E-commerce Live Streaming Experience

Table 4.6: E-commerce Live Streaming Experience

Characteristic		Frequency	Percent (%)
Frequency of watching e-commerce live streaming	Frequently	16	7.7
	Occasionally	69	33.2
	Rarely	123	59.1
Time spent on average per session	1-15 minutes	111	53.4
	16-30 minutes	40	19.2
	30 minutes above	17	8.2
	Less than 1 minute	40	19.2

Source: Developed for the study

It is vital to understand the behaviour of respondents on e-commerce live streaming. Relating to the domain of this research, the frequency and average time spent watching e-commerce live streaming were recorded. All respondents who stated 'Never' for the frequency of watching e-commerce live streaming were eliminated from the analysis. With that being said, there were more than half of the respondents (i.e. 123 respondents, 59.1%) feedbacked that they rarely watched e-commerce live streaming, followed by 69 occasional e-commerce live-streaming audiences (33.2%) and 16 frequent e-commerce live streaming audience (7.7%). The average length of time viewing e-commerce live streaming was relatively low. Almost half of the respondents (53.4%) stated that they visited the e-commerce live streaming for 1 to 15 minutes, and 19.2% stayed less than 1 minute. 19.2% of the respondents viewed the e-commerce live streaming for 16 to 30 minutes, while the remaining 8.2% viewed it for more than 30 minutes.

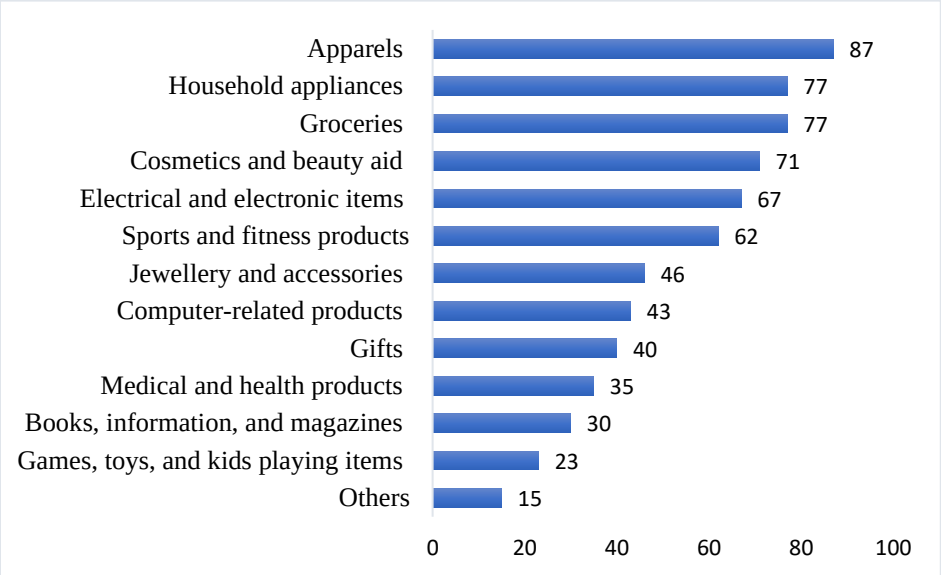
Table 4.7: Platform Used To Watch E-Commerce Live Streaming

Characteristic		Frequency
Platform used to watch e-commerce live streaming	Shopee	115
	Lazada	54
	Zalora	7
	Taobao live	51
	Others	128

Source: Developed for the study

The most used platform by the respondents was other not mentioned e-commerce platforms (n=128), followed by Shopee (n=115), Lazada (n=54), Taobao live (n=51), and Zalora (n=7). There were active respondents who stated that more than one e-commerce platform was being used to watch live streaming.

Figure 4.1: Products and services purchased from e-commerce live streaming



Source: Developed for the study

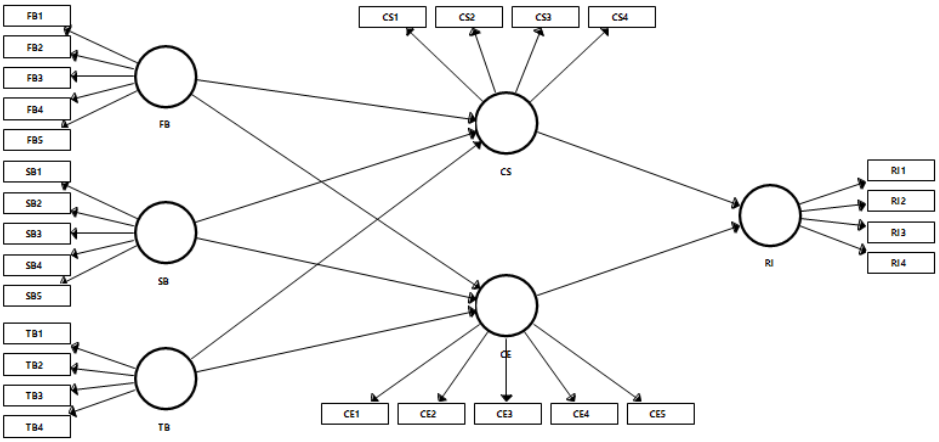
It can be clearly seen that apparels were the most popular item purchased by the respondents from Figure 4.1. The rank was followed by both groceries and household appliances, which gained 77 purchases

during the e-commerce live streaming. The cosmetics and beauty aid, electrical and electronic items, as well as the sports and fitness products, were also commonly bought during the e-commerce live streaming with a purchase of 71, 67 and 62, respectively. A huge gap divided the rank and followed by jewellery and accessories, computer-related products and gift with an average of 43 purchases respectively.

4.5 Partial Least Square Structural Equation Modelling

The following section explains the analysis conducted using PLS-SEM to determine the influential factor of relational bonds towards repurchase intention. The analysis involved assessment of the measurement model and structural model as well as hypotheses testing. The path model constructed is shown in Figure 4.2.

Figure 4.2: PLS-SEM Path Model

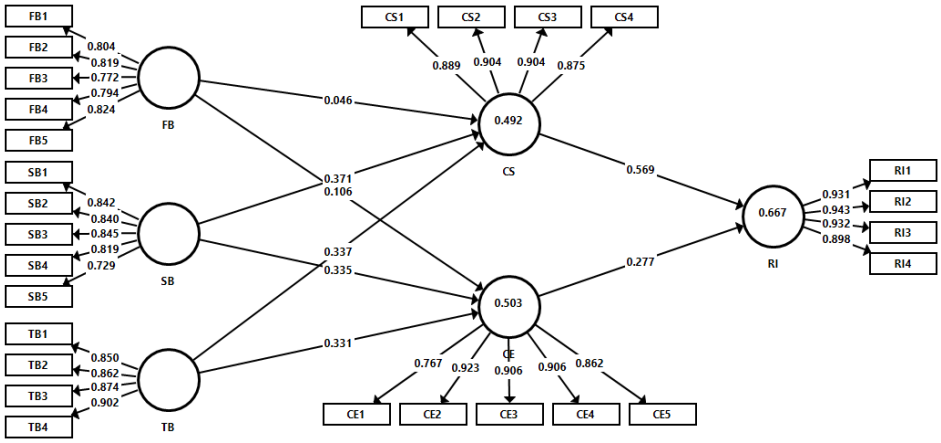


Source: Developed for the study

4.5.1 Measurement Model

Internal consistency reliability, convergent validity and discriminant validity were assessed in the measurement model. Figure 4.3 demonstrates the measurement model.

Figure 4.3: Measurement Model



Source: Developed for the study

4.5.1.1 Internal Consistency Reliability

Table 4.9 exhibits the results of outer loading and composite reliability of all indicators and latent variables. With reference to the guidelines provided by Hair et al. (2011), the outer loading of indicators ranged between 0.729 to 0.943, thereby fulfilling the threshold value of 0.7. As far as composite reliability is concerned, the composite reliability for constructs also satisfied the threshold value of 0.7. It is worthwhile to note that repurchase intention exceeded the recommended value of 0.95 by Hair et al. (2017). Ringle et al. (2015) argued that the logic values above 0.95 are still considered acceptable since the items do measure different qualities of the latent variables. Therefore, the concern of 0.95 composite reliability is unnecessary.

Table 4.9: Outer Loading and Composite Reliability

Construct	Item	Outer Loading	Composite Reliability
Financial bond	FB1	0.804	0.901
	FB2	0.819	
	FB3	0.772	
	FB4	0.794	
	FB5	0.824	
Social bond	SB1	0.842	0.909
	SB2	0.840	
	SB3	0.845	
	SB4	0.819	
	SB5	0.729	
Structural bond	TB1	0.850	0.927
	TB2	0.862	
	TB3	0.874	
	TB4	0.902	
Consumer satisfaction	CS1	0.889	0.940
	CS2	0.904	
	CS3	0.904	
	CS4	0.875	
Consumer engagement	CE1	0.767	0.942
	CE2	0.923	
	CE3	0.906	
	CE4	0.906	
	CE5	0.862	
Repurchase intention	RI1	0.931	0.960
	RI2	0.943	
	RI3	0.932	
	RI4	0.898	

Source: Developed for the study

4.5.1.2 Convergent Validity

Table 4.10 represents the average variance extracted (AVE) value for each construct. All AVE values are acceptable by exceeding the

threshold value of 0.5. This simply defined that the latent variables explain 50% or greater of the variance of indicators. Thus, the model was considered acceptable.

Table 4.10: Average Variance Extracted (AVE)

Construct	Average Variance Extracted (AVE)
Financial bonds	0.645
Social bonds	0.666
Structural bonds	0.760
Consumer satisfaction	0.798
Consumer engagement	0.765
Repurchase intention	0.858

Source: Developed for the study

4.5.1.3 Discriminant Validity

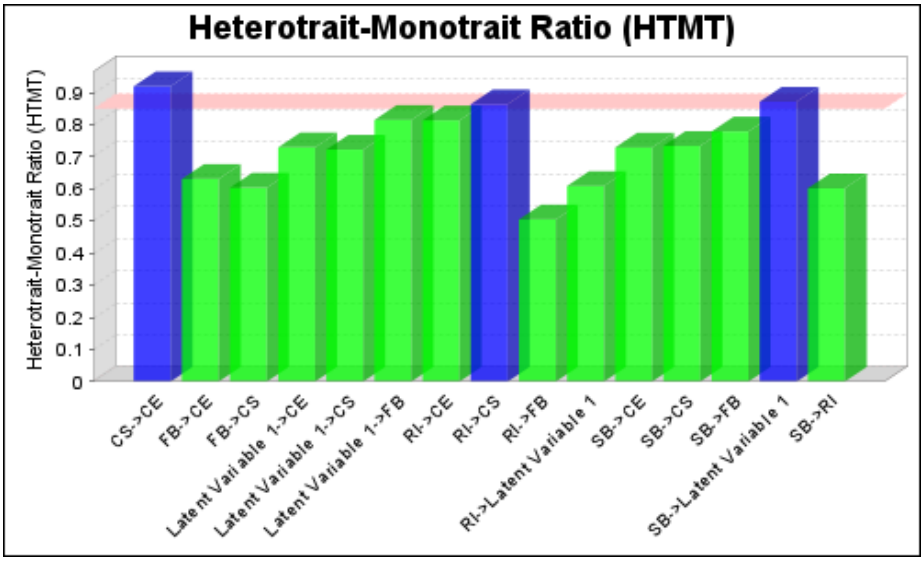
Next, the discriminant validity was assessed using heterotrait-monotrait (HTMT) criterion. Table 4.9 and Figure 4.4 illustrates the result of HTMT. Holding 0.90 as the critical threshold value, the result of the assessment indicated that HTMT statistics for consumer satisfaction (CS) towards consumer engagement (CE) is 0.919, which it fails to remain below 0.90. Furthermore, the correlation of both repurchase intention (RI) towards consumer satisfaction (CS) and structural bond (TB) towards social bond (SB) have a HTMT value of 0.864 and 0.872, respectively. It violates the conservative approach of HTMT 0.85 threshold value. The other values were all satisfying. Beyond that, the confidence value of HTMT was examined using complete bootstrapping with 1000 resampling as recommended by (Chin, 1998a). The results of the assessment showed that both upper and lower confidence levels do not have a value of 1. Therefore, this suggests that discriminant validity is established.

Table 4.9: Heterotrait-monotrait ratio (HTMT)

Construct	CE	CS	FB	RI	SB	TB
CE						
CS	0.919 [0.860; 0.969]					
FB	0.631 [0.543; 0.723]	0.604 [0.506; 0.699]				
RI	0.813 [0.741; 0.873]	0.864 [0.806; 0.914]	0.505 [0.385; 0.620]			
SB	0.729 [0.639; 0.812]	0.734 [0.657; 0.812]	0.779 [0.687; 0.857]	0.602 [0.494; 0.699]		
TB	0.729 [0.657; 0.799]	0.722 [0.651; 0.797]	0.815 [0.737; 0.878]	0.609 [0.506; 0.705]	0.872 [0.817; 0.929]	

Source: Developed for the study

Figure 4.4: Heterotrait-Monotrait Ratio (HTMT)

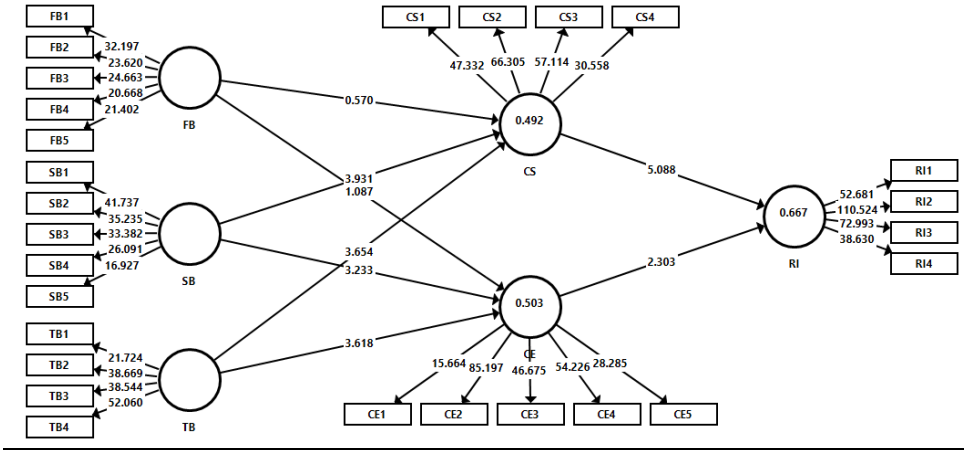


Source: Developed for the study

4.5.2 Structural model

Collinearity, path coefficient and coefficient of determination were assessed in the structural model. Figure 4.5 demonstrates the structural model.

Figure 4.5: Structural model



Source: Developed for the study

4.5.2.1 Collinearity

Collinearity was tested using variance inflated factor (VIF). The VIF values of all latent variables tested in the study were below 5, with a maximum of 3.489 for both consumer satisfaction and consumer engagement while a minimum of 2.276 for financial bonds. Since all VIF values satisfy the rule of thumb for remaining below 5, thus, there is no collinearity issue. The details of the collinearity assessment are presented in Table 4.11.

Table 4.11: Collinearity

Construct	VIF
Financial bonds	2.276
Social bonds	2.678
Structural bonds	3.026
Consumer satisfaction	3.489
Consumer engagement	3.489
Repurchase intention	

Source: Developed for the study

4.5.2.2 Path Coefficient and Hypotheses Testing

Prior to assessing the structural model, this study found that financial bond had insignificantly positive influenced consumer satisfaction (β=0.046, p=0.301) and consumer engagement (β=0.106, p=0.144). The requirement of t-value > 1.96 and p-value < 0.05 were not met. Thereupon, H1 and H2 that hypothesized a positive relationship between financial bond with consumer satisfaction and consumer engagement were not supported.

Next, social bond had significant positive influence on consumer satisfaction (β=0.371, p=0) and consumer engagement (β=0.335, p=0). Also, structural bond had significant positive influence on consumer satisfaction (β=0.337, p=0) and consumer engagement (β=0.331, p=0). Likewise, as hypothesized, a significant positive relationship was established for consumer satisfaction (β=0.0.569, p=0) and consumer engagement (β=0.277, p=0) correlating with repurchase intention. The mentioned path fulfilled addressed the criteria of t-value>1.96 and p-value<0.05. Hence, H3, H4, H5, H6, H7 and H8 were supported. Table 4.12 summarizes the results of path coefficients and hypotheses testing.

Table 4.12: Path Coefficients and Hypotheses Testing

		β	t-value	p-value	Hypotheses
H1	FB -> CS	0.046	0.521	0.301	Not supported
H2	FB -> CE	0.106	1.064	0.144	Not supported
H3	SB -> CS	0.371	4.165	0	Supported
H4	SB -> CE	0.335	3.305	0	Supported
H5	TB -> CS	0.337	3.663	0	Supported
H6	TB -> CE	0.331	3.643	0	Supported
H7	CS -> RI	0.569	5.020	0	Supported
H8	CE -> RI	0.277	2.254	0	Supported

Source: Developed for the study

4.5.2.3 Coefficient of Determination

The coefficient of determination (R^2) explained variance in the endogenous variables in correlation to its underlying exogenous variables. The R^2 for repurchase intention (RI) had the highest value, 0.667. This indicates that 66.70% of the variance in repurchase intention can be explained by consumer satisfaction and consumer engagement. All R^2 values are considered meaningful as they surpass the value of 0.30 (Chin, 1998b).

Table 4.13: Coefficient of Determination

Construct	R Square
Consumer satisfaction	0.492
Consumer engagement	0.503
Repurchase intention	0.667

Source: Developed for the study

4.5 Summary

This chapter represents the descriptive analysis and inferential analysis of data collection. The researcher strictly adhered to every single step to analyse the data for a precise analysis. Before the distribution of the online survey questionnaire, the researcher conducted a pilot test with 30 samples collected beforehand. The data collected were tested on the reliability of the construct. All construct items exhibited a consistent figure of Cronbach's alpha.

Thereafter, the online survey questionnaire was distributed and collected with the aid of Google Forms. After coding and editing the data, the researcher performed data cleaning to remove invalid data. A total of 208 responses were taken into account for quantitative data analysis. The respondents' demography profiles were analysed. Later, the researcher proceeded with inferential analysis using PLS-SEM. No indicator was removed during the measurement model assessment. Results had shown that the constructs exhibited satisfying reliability and validity. Then, there were eight hypotheses tested during the structural model assessment. Among all eight hypotheses proposed, two hypotheses pertaining to the financial bond (i.e. H1 and H2) were not supported with the indicator of low significance. Other than that, all variables showed a positive correlation. The following chapter further discusses on the findings based on the present analysis.

Chapter 5: Discussion, Conclusion, and Implications

5.1 Introduction

The researcher discussed and justified the significant findings in this chapter. This study also drew some implications from the theoretical lens and practical lens for relevant parties. The researcher also highlighted a few limitations within the study and provided reciprocal recommendations for future research.

5.2 Discussion of Major Findings

This study was carried out in alignment with the aim to further the investigation of the relationship between relational bonds, consumer engagement and satisfaction, leading to the consumer repurchase intention in the e-commerce live streaming context by using Stimulus-Organism-Response (SOR) model. By doing so, objectives and hypotheses were put forward in this study based on the literature reviewed and the survey conducted. The primary objective was to investigate the influence of financial bond on consumer satisfaction and engagement. The second objective was to investigate the influence of social bond on consumer satisfaction and engagement. Next, it was to investigate the relationship of structural bond on consumer satisfaction and engagement. Proceeding to the final objective was to investigate the influence of consumer engagement and consumer satisfaction toward repurchase intention. This study provided convincing evidence about influential factors that determine the consumer behaviour toward the repurchase intention.

According to the data analysis, all objectives were attended. The results showed that this study failed to accept both H1 and H2, which proposed to investigate the relationship between financial bond towards consumer satisfaction and consumer

engagement. Notwithstanding, the null hypotheses for H2, H3, H4, H5 and H6 were rejected and proved to pose a significantly positive relationship with their corresponding dependent variable accordingly. The major findings were interpreted and discussed in the following subsections.

5.2.1 Stimulus-Organism

From the entire study conducted, it was found that relational bonds were often bundled as essential relationship marketing tools (Chang et al., 2021; Chiu et al., 2005; Gu et al., 2016; Hu & Chaudhry, 2020). In e-commerce live streaming, initiating the relational bonds among the broadcaster and audiences to satisfy and engage the audience has become one of the major attributes. The extent of the influence of relational bonds to trigger consumer satisfaction and consumer engagement has been one common question to ponder. The researcher provided some insights of study integrated with ideas from other scholars in the following subsection.

5.2.1.1 Relationship Between Financial Bond with Consumer Satisfaction and Consumer Engagement

The results of the study stated that the financial bond has an insignificant effect on both consumer satisfaction and consumer engagement. The findings of this study toppled the logical reasoning that consumers' utility improves with financial incentives. According to Urbany et al. (1988), the standard economic theory suggested that consumers would usually make a purchase for products that yield the highest utility per dollar spent. Howbeit, the opposing voice to this statement was supported by recent research. Xu et al. (2022) echoed that monetary

rewards may diminish the consumer attitude in which the monetary rewards are likely to pull the audience into an informal profit-loss analysis. The resistance to a positive state could be highly correlated to mental transaction costs (Xu et al., 2022). The term ‘mental transaction costs’ appeared earliest with the emergence of micropayments. The mental transaction costs do not define the physical, computational or quantifiable cost of payment but spell from at least three sources, namely uncertain cashflows, incomplete observation of product characteristics, as well as expensive decision making (Szabo, 1999). The author claimed that the mental accounting costs would appear higher in the e-commerce industry due to the nature of its operation (Szabo, 1999). It is also commonly be seen that the instrument applied across e-commerce live streaming is “free gift with purchase”, varying with some mentioning the value of freebies and some do not. Quoting Raghubir (2004), consumers tend to evaluate the discount rate to translate the value of a gift when the price of a sales product is known, but the value of freebies is unknown. This added to the cost of decision making.

Attributable to the fact that consumers may have an incomplete examination of the physical attributes or imperfect amount of information, the existence of financial bond would be shadowed by other non-financial bonds. In reaction to the matter mentioned above, an illustration was drawn by Stern (1999) confirmed that monetary incentives did motivate a positive attitude, provided that monetary incentives exist independently. Nonetheless, with several factors existing in the same setting, the stronger the financial bond, the more significant role of non-financial variables play (Stern, 1999).

Another possible explanation for the insignificance effect tested of financial bond in resulting in consumers’ positive state of mind can be

charged on the mechanism of financial incentives provided. Some e-commerce platforms provide financial incentives in the form of virtual tokens. By way of illustration, Shopee allocates its official virtual token, the Shopee coin that is being stored in a personal account (Shopee, 2022). The Shopee marketplace offers extra Shopee coins for redemption when checking out the items purchased during live streaming. The use of Shopee coin as a discount for orders on Shopee, however, is only applicable to broadcasters who met the criteria named. Despite the fact that virtual tokens had been granted access for transactions, the concern of cash readiness among users should be primarily warranted in the case of resistance to transacting using virtual tokens (Balakrishnan & Shuib, 2021).

Succinctly, the insignificant positive influence of financial bond on consumer satisfaction and consumer engagement is explained by the intuitive analysis of informal profit and loss, the complexity of stimulus in the real-life setting and the mechanism of financial incentives.

5.2.1.2 Relationship Between Social Bond with Consumer Satisfaction and Consumer Engagement

The result of data analysis on social bond agreed with the hypotheses developed in which the researcher anticipated that social bond would influence consumer satisfaction and engagement. Coinciding with Jiang & Stylos (2021), COVID-19 has certainly disrupted face-to-face social activities; people are forced to seek for alternatives to socialize by depending on digital communication. It suggested that people cling to social interaction via digital gadgets as the product of insecure attachment when government imposes restricted movement order (Holte & Ferraro, 2020). An earlier study by Liu & Ma (2019) supported

the claim with convincing findings on the mediation role of fear of missing out on the relation between insecure attachment and demand for online social engagement. This also justified the high loading on item SB3, 'When I am watching, the broadcaster reacts to what I say during the live stream' (0.854). In a similar manner, Sun et al. (2019) also suggested that it is mandatory to increase social interaction between broadcasters and audiences. Consumers who have a deep connection with the broadcasters become more motivated to participate in engagement (Majeed et al., 2022). The audience can compensate for the lack of community in real life and relieve loneliness by seeking attention from the broadcasters (Hilvert-Bruce et al., 2018). In general, the attention on and social interaction with the particular audience motivates social bond and therefore predicts a positive relationship towards consumer satisfaction and consumer engagement.

Notably, in contrast to the consumer engagement, social bond has a greater impact on consumer satisfaction. A likely explanation is that the social bond would encourage the audience to be content and feel entertained during the live streaming, yet fail to encourage them to leave comments, send likes, share the live video externally to their acquaintances or other possible interactive actions. Nortvig et al. (2018) stated that a successful engagement would require comprehensive instructions on how to participate in involvement. It, therefore, seemed to be a significant need for the broadcasters to initiate themed discussions in order to encourage competent two-way communication.

5.2.1.3 Relationship Between Structural Bond with Consumer Satisfaction and Consumer Engagement

Before proceeding to examine findings on structural bond, it is necessary to note that structural bond have significant implications on both consumer satisfaction and consumer engagement. Remarkably, structural bond had greater influential weightage on consumer engagement compared to other relational bonds. The result of the study confirms previous research conducted in relational marketing (Chang et al., 2021; Hu & Chaudhry, 2020). This means that consumers agreed to immerse and interact during the live streaming when the perceived informational value is high. Specifically, the construct items TB4, 'The broadcaster provides valuable information about products to help me make decision during the live stream' and TB3, 'I can get clear and detailed information about products that I need during the live stream' have the highest loading of 0.916 and 0.884, respectively.

Ehmke (2022) also resonated that educational marketing would be on-trend in 2022 and exist along the marketing funnel. The principal rationale that matters in the trend of educational marketing is digital transformation that integrates digital technology into reality and extends to reshaping the business model (Kaplan & Haenlein, 2019). Albeit the advantages of digital transformation in the commerce world have been intensely discussed, it is undeniable that digital transformation exposed consumers to misleading information out of the massive amount of information disseminated daily (Petratos, 2021). This, in turn, enhanced the nobility of information quality. Previous literature established that information quality improved when clear and precise information was presented, hence, decreasing the information overload (Laumer et al., 2017; Zhang et al., 2021).

5.2.2 Organism-Response

5.2.2.1 Relationship Between Consumer Engagement and Consumer Satisfaction with Consumer Repurchase Intention

According to Simon & Tossan (2018), it stated that consumer engagement depends on the efficacy of consumer satisfaction. Similarly, research conducted by Thakur (2018) examined the positive relationship between consumer satisfaction and consumer engagement. Majeed et al. (2022) figured out the linkage between consumer satisfaction and consumer engagement. Thus, predicting repurchase intention happens, provided that consumer engagement is highly supported by profound consumer satisfaction. Beyond, Lim et al. (2019) also investigated the determination of consumer engagement towards repurchase intention. However, limited research attempted to compare the effectiveness of consumer satisfaction and consumer engagement towards repurchase intention.

This study agreed on the independent relationship of consumer satisfaction and consumer engagement towards repurchase intention. Based on the results, this study revealed that consumer satisfaction tends to exert a stronger influence on repurchase intention than consumer engagement forasmuch, as it is suggested that broadcasters should pay attention to intensifying consumer satisfaction in order to spur the consumer to initiate repurchase.

5.2.3 Summary of The Results of Hypotheses Testing

To conclude this study, it was established that financial bond did not significantly affect consumer satisfaction and engagement, leading to repurchase intention in e-commerce live streaming. Conversely, social bond and structural bond were much more significant when consumers

decided to make a repeat purchase with specific broadcasters. Hence, the broadcasters should focus on building solid and robust social bond to enhance consumer satisfaction. Meanwhile, the broadcasters should also converge in fostering the structural bond to enhance consumer engagement. After all, financial bond should be less emphasized.

5.3 Implications of The Study

The retail e-commerce market has encountered a boom and is growing rapidly. Repeatedly, the e-commerce live streaming market in Malaysia is experiencing a lag of expansion to compete with beasts of the market within the industry like Taobao Live or Amazon. This study provided a more detailed comprehension of Malaysians' attitudes towards relational bonds. The subsequent section describes the practical and theoretical implications of the study.

5.3.1 Theoretical Implication

There were several theoretical implications made. This study overcame the literature gaps in existing research and identified key variables to determine consumer repurchase intention. Although there was various research conducted on live streaming from all different perspectives, relational bonds were not commonly mentioned. Malaysia, being a collectivistic society, people value connection (Hofstede Insights, 2022). This extended the present literature and built a solid foundation for future researchers to expand the exploration and discovery in the relevant context of the study. Moving on, the findings of this study also revealed that social bond and structural bond were critical to consumer repurchase intention. Furthermore, a second major implication of this study was the examination of Malaysian shopping behaviour in e-

commerce live streaming. Although live streaming has been extensively integrated into the e-commerce marketplace, only limited study was conducted on Malaysian consumers. Thereby, this study provided a penetrative insight into Malaysian consumers' shopping behaviour, specifically in the e-commerce live streaming context.

5.3.2 Practical Implication

The researcher had listed several practical implications for various parties. The knowledge obtained from the study can be useful to broadcasters. The majority of study on broadcaster efficacy has focused on founding financial bond, social bond and structural bond. Having the idea that social bond and structural bond are equally significant in resulting in positive consumers attitudes, the broadcasters should act accordingly. A reasonable approach to leveraging the social bond is to be attentive to the audience. Either by giving sincere recommendations during the live stream or paying attention to and reacting with the audience friendly, both would help to induce repurchase intention and leverage customer lifetime value ultimately. In the same vein, another sensible action to reinforce the structural bond is to professionalise the information delivered and constantly provide ease to the audience in deciding the purchase.

For marketers who wish to find a third-party broadcaster to advertise the products or services, broadcasters who equip with robust relational bonds with the respective audience should be made the primary consideration. This will help the marketers to promote the products and services to the maximum extent of effectiveness and efficiency. The competency of the broadcasters in developing, maintaining and leveraging the relational bonds matters the most. The greater

satisfaction and engagement committed by the audience, the more intensive the intention to make a repeat purchase.

E-commerce live streaming is definitely having a low entry barrier to market products and services offered. However, being a second-mover or even a late mover to join the competitive market, small-and-medium enterprise owners who remain mostly anonymous might face a bottleneck in competing. The owners are expected to compete with those pioneers or endorsers with high popularity to increase awareness and reach a massive group of consumers. Despite that, constructing concrete relational bonds with the existing community helps the small-and-medium enterprise owner to tie with the audiences and translate into long term relationships.

5.4 Limitation of Study

The researcher had identified several shortcomings of this study. First, this study overlooked the trust transfer theory, in which there is a possibility that social bonds can be transferred from the e-commerce marketplace to the broadcasters (Xiayu Chen et al., 2015). The researcher focused on the broadcasters and omitted the influence of the e-commerce marketplace. Additionally, the earlier study by Hu & Chaudhry (2020) had proven that the affective commitment to the online marketplace had greater domination on consumer engagement. The omission of influence posed by the e-commerce marketplace represented one of the limitations of the study.

Third, since this was a study on live streaming shopping, the researcher did not take product category involvement into account as a major influencing factor. Menidjel et al. (2020) justified the mediation effect of product category involvement in correlating consumer satisfaction and purchase intention. Therefore, the exclusion of product category involvement represented a flaw in this study.

Besides that, from the reviewed literature, scholars confirmed that the personal brand image and followership had a positive impact on the consumer behaviour (Clement Addo et al., 2021; Hermanda et al., 2019; Nascimento et al., 2020; Nurhandayani et al., 2019; Park & Lin, 2020). Along with the integration on multiple social media channels, broadcasters who act as influencers or Key Opinion Leaders (KOLs) with high popularity tend to enjoy greater ease in forming and sustaining social bond. Nevertheless, the attributes of the broadcasters were not carefully tested.

5.5 Recommendation for Future Research

The limitations of the study identified above were translated as direction and recommendations for future research. As to overcome the omission of affective commitment to the e-commerce marketplace, it is recommended to include and test the mediation effect of commitment to the e-commerce marketplace and broadcasters.

In the meantime, to deliver more comprehensive insights and information on consumer behaviour in e-commerce live streaming, improvements can be made by issuing the ‘Products and services purchased from e-commerce live streaming’ as a moderating variable in the study.

The brand image and followership of the broadcasters can be tested by collecting the metrics, including time spent, likes, comments, and chats in the live streaming room. This would probably require mixed approach research for further investigation.

5.6 Summary

In summary, it had been shown from this study that social bond and structural bond were exact relational bonds to positively change consumers' organism, namely

satisfaction and engagement, leading to repurchase intention. Also, this study presented the comparison of consumer satisfaction and consumer engagement towards repurchase intention, in which facts and statistical figures had proven that consumer satisfaction tended to pose greater influential power towards repurchase intention in the context of e-commerce live streaming. The researcher suggested that major findings of this study could make practical as well as theoretical implications for broadcasters, marketing managers, small-and-medium enterprise owners and the literature systems. The limitations identified in the research design were translated into recommendations for future research.

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APPENDICES

Appendix A

Online Survey Questionnaire

Dear respondents,

I am a final year student from Universiti Tunku Abdul Rahman who currently pursuing Bachelor of International Business (Hons). I am conducting a survey on a study on the influence of live-streaming shopping on consumer repurchase intention during COVID-19 pandemic. Kindly provide your responses and answer all the questions to the best of your knowledge. There are no wrong responses to any of these statements. All responses are collected for academic research purposes and will be kept strictly confidential.

Should you have any doubt, kindly contact me at 013-7461036 or jjjiayeeee@1utar.my. Your participation is much appreciated.

Instructions:

1) There are THREE (3) sections in this questionnaire. Please answer ALL questions in ALL sections.
2) Completion of this form will take you approximately 10 to 15 minutes.
3) The contents of this questionnaire will be kept strictly confidential

Sincerely,

Principal researcher
Name : Yeh Jia Yee
Student ID : 1804085
Email : jjjiayeeee@1utar.my
Supervisor
Name : Ms. Loh Yin Xia
Email : lohyx@utar.edu.my

Personal Data Protection Statement

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.

Notice:

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

- For assessment of any application to UTAR
- For processing any benefits and services
- For communication purposes
- For advertorial and news
- For general administration and record purposes
- For enhancing the value of education
- For educational and related purposes consequential to UTAR
- For the purpose of our corporate governance
- For consideration as a guarantor for UTAR staff/ student applying for his/her scholarship/ study loan

2. 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.

3. 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.

4. 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:

1. By submitting this form you hereby authorise and consent to us processing (including disclosing) your personal data and any updates of your information, for the purposes and/or for any other purposes related to the purpose.

2. 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 fulfil 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.

3. You may access and update your personal data by writing to jjjiayeeee@1utar.my.

Acknowledge of Notice:

☐ I have been notified and that I hereby understood, consented and agreed per UTAR above notice

☐ I disagree, my personal data will not be processes

Introduction on E-Commerce and Livestreaming

For your information, **e-commerce** is defined as ‘any “net” business activity that transforms internal and external relationships to create value and exploit market opportunities driven by new rules of the connected economy. E-commerce also refers to the business operation conducted with the utilisation of electronic channel, mainly the Internet.

Whilst, **livestreaming** is the broadcasting of live video using the Internet. It may be perceived as the modern television shopping, yet, more interactive as it allows immediate dual communication in real-time during the livestream.

Section A: Demographic Profile

In this section, please fill or tick (✓) for the most appropriate answer for each question, unless indicated otherwise. All answers will be kept strictly confidential.

A1. Gender

- ☐ Female
- ☐ Male

A2. Generational cohort

- ☐ Baby boomers (58-76 yo)
- ☐ Gen X (46-57 yo)
- ☐ Gen Y (27-45 yo)
- ☐ Gen Z (18-27 yo)

A3. Race

- ☐ Malay
- ☐ Chinese
- ☐ Indian
- ☐ Others

A4. Highest level of education

- ☐ Primary school
- ☐ Secondary school
- ☐ Diploma
- ☐ Undergraduate
- ☐ Postgraduate

A5. Work status

- ☐ Unemployed
- ☐ Self employed
- ☐ Employed
- ☐ Retired

A6. Average monthly household income

- ☐ B40 (RM5000 below)
- ☐ M40 (RM5000 – RM10,000)
- ☐ T20 (RM10,000 above)

A7. I watch e-commerce live streaming

- ☐ Never
- ☐ Rarely
- ☐ Occasionally

- ☐ Frequently

A8. On average, I spend _____ minutes every time when I watch e-commerce live streaming

- ☐ Less than 1 minute
- ☐ 1-15 minutes
- ☐ 16-30 minutes
- ☐ 30 minutes above

A9. I usually watch e-commerce live streaming on _____
(Please check all that apply)

- ☐ Shopee
- ☐ Lazada
- ☐ Zalora
- ☐ Taobao live
- ☐ Others

A10. Products and services purchased from e-commerce live streaming
(Please check all that apply)

- ☐ Apparels
- ☐ Groceries
- ☐ Household appliances
- ☐ Electrical and electronic items
- ☐ Jewellery and accessories
- ☐ Sports and fitness products
- ☐ Books, information, and magazines
- ☐ Computer-related products
- ☐ Gifts
- ☐ Games, toys, and kids playing items
- ☐ Cosmetics and beauty aid
- ☐ Medical and health products
- ☐ Others: _____

Section B: Consumer Organism and Social Commerce Repurchase Intention

This section is seeking your opinion regarding the repurchase intention, consumer satisfaction and consumer engagement. Please read the statements carefully and fill in that alternative that suits you best at a scale from 1-7. The alternative 1 = strongly disagree and 7 = strongly agree.

No	Question	Strongly Disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly Agree
RI	**Repurchase Intention**							
RI1	If I could, I would like to continue shopping through my most visited e-commerce live stream to buy products.	1	2	3	4	5	6	7
RI2	It is likely that I will continue buying products from my most visited e-commerce live stream in the future.	1	2	3	4	5	6	7
RI3	I intended to continue buying products from my most visited e-commerce live stream in the future.	1	2	3	4	5	6	7
RI4	If I need to buy products in the future, I would probably revisit my most visited e-commerce live stream.	1	2	3	4	5	6	7
CS	**Consumer Satisfaction**							
CS1	I like to buy during the e-commerce live stream	1	2	3	4	5	6	7
CS2	I am pleased with the experience of buying products during the e-commerce live stream	1	2	3	4	5	6	7
CS3	I think that buying products during the e-commerce live stream is a great idea	1	2	3	4	5	6	7
CS4	I am satisfied with the overall experience with my most visited during the e-commerce live stream	1	2	3	4	5	6	7
CE	Consumer Engagement							
CE1	I spend more time on e-commerce platform that have live stream.	1	2	3	4	5	6	7
CE2	I would become a fan and a follower of the e-commerce platform that uses live streaming.	1	2	3	4	5	6	7

CE3	I would be likely to try and keep track of the activities of a seller that uses live stream on e-commerce platform.	1	2	3	4	5	6	7
CE4	I am likely to revisit the e-commerce platform to watch their new live stream in the near future.	1	2	3	4	5	6	7
CE5	I am likely to recommend a seller that uses live stream on e-commerce platform to my friends.	1	2	3	4	5	6	7

Section C: Relational bonds

This section is seeking your opinion regarding the relational bonds, namely the financial bonds, social bonds and structural bonds. Please read the statements carefully and fill in that alternative that suits you best at a scale from 1-7. The alternative 1 = strongly disagree and 7 = strongly agree.

No	Question	Strongly Disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly Agree
FB	**Financial Bonds**							
FB1	The broadcaster offers discounts to regular consumers during the live stream	1	2	3	4	5	6	7
FB2	The broadcaster offers discount coupons to encourage future purchases during the live stream	1	2	3	4	5	6	7
FB3	I can receive additional discounts if I buy more during the live stream	1	2	3	4	5	6	7
FB4	The broadcaster often provides special incentives during the live stream	1	2	3	4	5	6	7
FB5	Transactions via live streaming activities can receive premiums or special offers	1	2	3	4	5	6	7
SB	**Social Bonds**							
SB1	The broadcaster pays attention to my needs during the live stream	1	2	3	4	5	6	7
SB2	When I am watching, the broadcaster knows I pay attention to him/her during the live stream	1	2	3	4	5	6	7
SB3	When I am watching, the broadcaster reacts to what I say during the live stream	1	2	3	4	5	6	7
SB4	The broadcaster often recommends products to me during the live stream	1	2	3	4	5	6	7
SB5	On special days, the broadcaster sends greetings or virtual gifts to me	1	2	3	4	5	6	7
TC	**Structural Bonds**							
TC1	The broadcaster answers my questions professionally during the live stream	1	2	3	4	5	6	7

TC2	I can receive prompt responses when I have difficulties or complaints during the live stream	1	2	3	4	5	6	7
TC3	I can get clear and detailed information about products that I need during the live stream	1	2	3	4	5	6	7
TC4	The broadcaster provides valuable information about products to help me make decision during the live stream	1	2	3	4	5	6	7

Thank you for your precious time and cooperation in completing this questionnaire.

All responses will be kept private and confidential.

Appendix B

Summary of Systematic Literature Review

Title	Year	Author	Research design	Research method	Sample size	Study population	Data analysis	Major findings
Buyer-seller relationships: Bonds, relationship management, and sex-type	2009	Brock Smith	self-report survey	Quantitative	185	Members of Purchasing Management Association of Canada	MANOVA and ANOVA	Social bonds were found to be key predictors of relationship quality. Functional bonds / financial bonds patially support the relationship quality. Howvever, structural bonds do not support the relationship quality.
Customer engagement and co-created value in social media	2020	Sara Quach, Wei Shao, Mi tchell Ross, P ark Thaichon	Survey	Quantitative	181	America residents	Model 1: PROCESS method	Overall, the results of this study showed that as the level of customer participation increased, the level of co-created value decreased. The relationship between customer participation and customer engagement was fully mediated by co-created value. Extrinsic motivation was found to moderate the relationship between customer participation and co-created

Title	Year	Author	Research design	Research method	Sample size	Study population	Data analysis	Major findings
								value but did not moderate the relationship between customer participation and customer engagement. Moreover, customer engagement was at its highest when an external reward was not offered, in other words, when customers were intrinsically motivated. Furthermore, when an external reward was offered, a significant effect of privacy concern on customer engagement was observed.
Customer engagement and online reviews	2018	RakhiThakur	Survey	Quantitative	421	Mumbai residents who who had made more than one purchases in past six months using mobile devices from a fashion/ lifestyle retailer.	Structural equation modelling	This study examined the factors contributing to customer engagement. Then, it also examined the relationship bteween customer satisfaction and customer engagement leading towards online review intention. Both customer satisfaction and engagement lead to online review intention. Customer engagement posed stronger influence than satisfaction.
Customer engagement through omnichannel retailing: The	2019	Zach W.Y.Lee, Tommy K.H.Chan, Alain Yee-	Survey	Quantitative	269 from Apple 221	Customers from Apple and Kroger	PLS-SEM	The results showed that channel integration quality dimensions (including breadth of channel-service choice, transparency of channel-service configuration,

Title	Year	Author	Research design	Research method	Sample size	Study population	Data analysis	Major findings
effects of channel integration quality		LoongChong, Dimple R.Thadani			from Kroger			content consistency, and process consistency) positively influenced customer engagement which in turn led to positive word-of-mouth and repurchase intention.
Customer engagement: the construct, antecedents, and consequences	2016	Anita Pansari & V. Kumar	-	-	-	-	-	The components of customer engagement include both the direct and the indirect contributions of consumer engagement
Customer satisfaction with services: putting perceived value into the equation	2000	Gordon H.G. McDougall, Terrence Levesque	Survey	Quantitative	448	Members of a church congregation in a mid-sized Canadian city	LISREL model	The results revealed that core service quality (the promise) and perceived value were the most important drivers of customer satisfaction with relational service quality (the delivery) a significant but less important driver. A direct link between customer satisfaction and future intentions was established. The relative importance of the three drivers of satisfaction varied among services.
Developing user loyalty for social networking sites: A relational perspective	2016	Rui Gu, Lih-Bin Oh, Kanliang Wang	Survey	Quantitative	289	Social networking sites users in China	PLS-SEM	Given their dissatisfying experience with prior SNS, dissatisfied switchers tend to form a relatively low level of expectation regarding the performance of their switch-to SNS before switching. Consequently, they tend to

Title	Year	Author	Research design	Research method	Sample size	Study population	Data analysis	Major findings
								perceive a high level of satisfaction with their currently used SNS compared with satisfied switchers. Given the critical role of satisfaction in affecting their continuance decision, dissatisfied switchers are more loyal to their currently used SNS than satisfied switchers. Stayers also exhibit a significantly higher level of loyalty to their currently used SNS than satisfied switchers.
E-commerce brand: The effect of perceived brand leadership on consumers' satisfaction and repurchase intention on e-commerce websites	2021	Weisheng Chiu, Heetae Cho	Survey	Quantitative	476	Chinese consumers	PLS-SEM	The results showed that all factors of perceived brand leadership (i.e. quality, value, innovativeness and popularity) have positive influences on satisfaction, and in turn satisfaction significantly affects repurchase intention.
Effects of price discount on consumers' perceptions of savings, quality, and value for apparel products: mediating effect	2018	Jung Eun Lee & Jessie H. Chen-Yu	Survey	Quantitative	209	Users on Mturk	confirmatory factor analysis (CFA)	When the direct effect of price discounts on perceived quality was examined, consumers perceived the apparel product with higher discounts as lower quality (i.e., a negative direct relationship). However, when price discount affect served as a mediator, the feelings created by

Title	Year	Author	Research design	Research method	Sample size	Study population	Data analysis	Major findings
of price discount affect								a price discount led to a positive perception of product quality (i.e., a positive indirect relationship).
Emotional and rational customer engagement: exploring the development route and the motivation	2019	Xiao Chen , Su Mi Dahlgaard-Park and Decheng Wen	Interview	Qualitative	9	mater annd doctor students recruited from a local university	-	The paper distinguishes the two customer engagement orientations from the aspects of development routes and motivations through literature analysis and empirical research.
Enhancing consumer engagement in e-commerce live streaming via relational bonds	2020	Mingyao Hu, Sohail S. Chaudhry	Survey	Quantitative	327	consumers of Taobao Live	Mplus	The results empirically demonstrate that social and structural bonds positively affect consumer engagement directly and indirectly via affective commitment, while financial bonds have only an indirect effect via affective commitment on consumer engagement.
Exploring the implications of the Internet for consumer marketing	1997	Robert A. Peterson, Sridhar Balasubramanian, Bart J. Bronnenberg	-	-	-	-	-	This study is analyzing channel intermediary functions that can be performed on the Internet, suggesting classification schemes that clarify the potential impact of the Internet across different products and services, positioning the Internet against conventional retailing channels, and identifying similarities and differences that exist between them.

Title	Year	Author	Research design	Research method	Sample size	Study population	Data analysis	Major findings
Extending customer relationship management into a social context	2015	Sarah Diffley, Patrick McCole	Survey	Quantitative	120	All hotels in the Republic of Ireland who have established a social networking presence	SPSS and PLS-SEM	Information technology competency and social media orientation act as critical antecedents to these processes, which have a positive impact on both financial and non-financial aspects of firm performance.
How live streaming influences purchase intentions in social commerce: An IT affordance perspective		Yuan Sun, Xiang Shao, Xiaotong Li, Yue Guo, Kun Nie	Survey	Quantitative	504	customers who have shopped via live streaming shopping platforms including Tao bao.com, JD.com, Mogujie.com, and Sina Microblog	SPSS and PLS-SEM	The results show that visibility affordance, metavoicing affordance, and guidance shopping affordance can influence customer purchase intention through live streaming engagement.
How repurchase intention is affected in social commerce?: An empirical study	2020	Bo Shang & Zheshi Bao	Survey	Quantitative	331	Customers who have social commerce experience	PLS-SEM	The results indicate the inner relationships among both positive and negative factors affecting repurchase intention, which provide insights into the mechanism underlying customers repurchase intention from a comprehensive perspective.
Human needs in COVID-19 isolation	2020	Thiago Matias, Fabio H Dominski,	-	-	-	-	-	The study examine the needs hierarchy level by level in the context of COVID-19 pandemic. A significant proportion of the

Title	Year	Author	Research design	Research method	Sample size	Study population	Data analysis	Major findings
		Favid F Marks						population live alone or are vulnerable to mental health problems yet, in the vast majority of cases, individuals in social isolation have no access to mental healthcare.
Key account relationship management: the moderating effects of relationship duration and transaction volume	2017	Jian He Yeh, Stephen W. Wang, Maxwell K. Hsu & Scott Swanson	Survey	Quantitative	212	Key clients of the air express delivery industry in Taiwan	Exploratory factor analysis	Empirical results indicate that relational benefits impact switching barriers, switching barriers influence customer satisfaction and loyalty, and customer satisfaction effects loyalty. Findings also confirm most of the hypothesized moderating effects for relationship duration and transactional volume on the relationship between relational benefits and switching barriers.
Online information quality and consumer satisfaction: The moderating roles of contextual factors – A meta-analysis	2015	Maryam Ghasemaghaei, Khaled Hassanein	Meta-analysis	Quantitative	42	Sample studies on research databases	Meta-analysis	A moderator analysis involving website type (retail or e-services), sample characteristics (respondent type and respondent origin) and the IQ categories used (representational and non-representational) in articles revealed that whereas website type and IQ categories moderate the relationship between perceived online IQ and consumer satisfaction, sample characteristics do not.

Title	Year	Author	Research design	Research method	Sample size	Study population	Data analysis	Major findings
Relational bonds, customer engagement, and service quality	2021	Chia-Wen Chang, Heng-Chiang Huang, Shih-Ju Wang & Han Lee	Survey	Quantitative	500	customers who received aesthetic medicine services from a large medical center in Taiwan	PLS-SEM	The results indicate that relational bonds affect the extent of customer engagement, which in turn influences service quality. Service quality also leads to customer satisfaction and WOM.
Relationship marketing and consumer switching behavior	2005	Hung-Chang Chiu, Yi-Ching Hsieh, Yu-Chuan Li, Monle Lee	Survey	Quantitative	613	Taiwanese bank customers	confirmatory factor analysis (CFA)	First, for stayers, three types of bonds (financial, social, and structural) improve customer utilitarian and hedonic values, thus leading to enhancement of customer loyalty. Second, for dissatisfied switchers, only the structural bond has a significant impact on customer's utilitarian value, which significantly improves customer loyalty. Third, for satisfied switchers, the social bond significantly affects the hedonic value, whereas the structural bond significantly affects the utilitarian value. Furthermore, both utilitarian and hedonic values have significant effects on customer loyalty.
The effects of match-ups on the consumer attitudes toward internet	2020	Hyun Jung Park, Li Min Lin	Survey	Quantitative	252	Users of Taobao Live Streaming (the biggest e-	Structural equation modelling	Results suggest that product-source fit affects the perceived source attractiveness and trustworthiness, while product-content fit affects utilitarian and

Title	Year	Author	Research design	Research method	Sample size	Study population	Data analysis	Major findings
celebrities and their live streaming contents in the context of product endorsement						commerce website) OR Yizhibo partnered with Sina weibo (the largest microblog platform)		hedonic attitude toward the content. Source trustworthiness, hedonic attitude and self-product fit increased the intention to buy.
The effects of relational bonds on online customer satisfaction	2009	Yi-Ling Chen, Hung-Chang Chiu	Survey	Quantitative	351	Members of portal site by Accton Technologic Corporation	Exploratory factor analysis	First, the financial and structural bonds have positive impacts on online shoppers' satisfaction; however, the social bond does not. Second, the financial, social, and structural bonds have more positive impacts on female, than male, customer satisfaction. Third, the financial bond is more successful in strengthening customer satisfaction for short-term than for long-term customers; however, the structural bond is more important for long-term than for short-term customers.
The process of customer engagement: A conceptual framework	2009	Jana Lay-Hwa Bowden	-	-	-	-	-	A conceptual framework for segmenting customer–brand relationships based on the extent to which customers are either new or repeat purchase customers of a specifi c service brand is proposed.

Title	Year	Author	Research design	Research method	Sample size	Study population	Data analysis	Major findings
The role of customer participation for enhancing repurchase intention	2017	Chih-Cheng Volvic Chen, Chih-Jou Chen	Survey	Quantitative	176	customers in the context of professional financial insurance services	PLS-SEM	The results of the study show that customer participation produces positive effects on customer satisfaction and affective commitment through the customer relational value. Affective commitment is a strong predictor of repurchase intention, but no relationship between customer satisfaction and repurchase intention was found.
Understanding customer engagement and loyalty: A case of mobile devices for shopping	2016	RakhiThakur	Survey	Quantitative	433	users of mobile devices for shopping	confirmatory factor analysis (CFA)	Findings of this study include development and validation of customer engagement as second order construct arising out of six different customer experiences - social-facilitation, self-connect, intrinsic enjoyment, time-filler, utilitarian and monetary evaluation experiences. Further, the study established significant role of customer engagement in predicting customer loyalty in addition to existing constructs of satisfaction and convenience.