



SCHOOL OF
ECONOMICS AND
MANAGEMENT

An analysis of how video advertising factors influence consumers' impulse purchase intentions

In the context of short-form video

by

Huihao Lu & Yating Zheng

May 2023

Master's Programme in

International Marketing and Brand Management

Supervisor: Burak Tunca

Examiner: Javier Cenamor

Abstract

Online shopping is gradually becoming a daily behavior in people's lives, and advertising marketing methods based on short videos are also playing an increasingly important role in this trend. Different from pictures and texts, it combines sound and picture, is easy to spread, and contains a lot of information, which conforms to people's habit of using fragmented information. In this case, users are more likely to carry out impulsive consumption.

This paper focuses on the study of short video advertisements on social media. Based on the theory of the stimulus-organism-response model, this paper determines the theoretical framework of the study. Short video advertisements are defined as "stimulus", the emotional process of the audience after watching the advertisement is defined as "organism", and the impulsive purchase intention of the user is defined as "response". Then, a study was conducted on the correlation between short video advertisements, audience emotional response and impulse purchase intention. The literature research method, questionnaire survey method, empirical research method and quantitative analysis method were used to select scales according to certain rules, and questionnaires were edited and written according to requirements. Online and offline sampling was adopted for the questionnaire survey, and 310 valid questionnaires were collected.

The quantitative analysis method was used to analyze the data, and the corresponding conclusions were drawn as follows: the informational content of short video advertisements, virtual touch, the interaction of user comments under videos and product discount information can all positively affect the emotional experience of the audience, and the emotional experience of the audience plays an intermediary role. Based on the conclusions, this paper proposes the following enlightenments: For product marketers, on the basis of clear goal orientation, they should analyze audience needs, customize advertising content to highlight the highlights of products, timely display product information, and show the use experience of products in videos, so that users can understand and feel the functions and characteristics of products in an immersive way. At the same time, content participation and user interaction should be enhanced. For example, marketers should properly manage and guide users to share positive product experiences under short videos, and properly conduct official interactions to increase brand affinity and thus increase users' desire to purchase specific products.

Keywords:

Short-form video advertising; impulsive purchase intention; emotional response

Acknowledgements

Yating Zheng

Time flies, and our fulfilling postgraduate life is coming to an end. I am very happy to have taken this important final project to explore an area that I have always been interested in, to do more hands-on work and to use my previous knowledge and experience to validate all the relevant ideas.

Besides, during the master's journey, there are many students who care about and help me. Because of them, my campus life is more than happy and rewarding. As for our studies, we would like to thank all the professors and teachers who have taught me and taught me valuable knowledge so that I could put these into practice. What's more, I would like to thank Javier for his enthusiasm for academics, which has been infectious and passed on to us, and our supervisor, Burak, who has been very helpful in guiding us through this academic journey, patiently answering our questions and discussing them with us. All the professors and teachers' classes benefited me a lot. I would also like to give special thanks to Philip Marklund and Isabella Edlund, digital marketing specialists from synlighet, a great Swedish digital marketing agency, for their valuable input and for the inspiration we received during our exploration. In particular, I would like to thank my thesis partner, Huihao, for working with me on this important project and discussing very many topics in related fields together! When I look back, it must be an unforgettable journey. On the occasion of finalizing this paper, I would like to once again express our most sincere thanks to all the teachers and students who have helped us!

Huihao Lu

As the thesis is finished, the final chapter of my Master's programme in International Marketing and Brand Management at Lund University draws to an end. I would like to take this opportunity to express my deepest gratitude to the individuals who have played a vital role in the successful completion of my thesis journey.

Firstly, I am grateful to my supervisor, Burak. Your invaluable suggestions and continuous support have been instrumental throughout this whole process. Your guidance and expertise have pushed our group thesis finished smoothly and methodically, and have shaped our research in profound ways. I would also like to express my appreciation to all the participants who took part in our survey. Your time, effort and willingness to share your experience have enriched the quality and depth of our research. And assist us in achieving meaningful results. Furthermore, I would like to express my sincere gratitude to our examiner, Javier. I believe your meticulous evaluation and constructive guidance will contribute to the refinement of our research thesis. Lastly, I want to acknowledge the support and collaboration of my thesis partner, Yating. Our shared dedication, teamwork and exchange of ideas have been fundamental in navigating the complexities of this project. We have overcome many obstacles, celebrated milestones, and finally produced the work that we can be proud of together.

I am truly thankful and lucky to have so many supports throughout this journey. All of your contributions have left an incredible mark to my personal and academic growth.

Table of content

1. Introduction	5
1.1 Background	5
1.2 Trends in Video Marketing	5
1.3 Bridge to the Gap	6
2. Literature review	6
2.1 Short video and short video marketing	6
2.2 Review on stimuli: Short video content factors research	8
2.2.1 Informativeness	8
2.2.2 Comments under Video (engagement)	8
2.2.3 Virtual Haptics in Video	9
2.2.4 Price Discount	10
2.3 Emotion	10
2.4 Consumers' Impulse Purchase Behaviour	12
3. Theoretical framework	14
3.1 SOR Model	14
3.1.1 Theoretical Overview	14
3.1.2 Application of S-O-R theory	15
3.2 Setting the hypothesis on the impact of short video content factors	17
3.2.1 Informativeness and emotional experience	17
3.2.2 The comments under the short video (engagement) and emotional experience	18
3.2.3 Virtual haptics and emotional experience	18
3.2.4 Price discount information and emotional experience	19
3.3 Setting the hypothesis on the impact of emotional response (Pleasure and Trust)	20
3.4 The mediation effect of Customers' Pleasure and Trust	20
4. Methodology	21
4.1 Research design	21
4.2 Data Collection	22
4.3 Variables	24
Variables in the questionnaire	24
4.3.1 Independent variables	25
4.3.2 Mediating variables	25
4.3.3 Dependent variable	26
4.4 Data Analysis	26
5. Findings	27
5.1 Data Descriptive	27

5.1.1 Variable Abbreviations Description	27
5.1.2 Results of descriptive statistics of the basic status of the respondents	27
5.2 Confirmatory factor analysis (CFA)	31
5.3 Validity and Reliability	33
5.3.1 Validity	34
5.3.1.1 Content validity	34
5.3.1.2 Construct validity	34
5.3.2 Reliability	35
5.4 Regression analysis	36
5.4.1 Correlation analysis	36
5.4.2 Regression analysis among variables	38
5.4.2.1 Short video ads factors on consumer emotion responses (S-O)	38
Emotional pleasure	38
Trust	41
5.4.2.2 Emotional responses on impulse purchase behaviour(O-R)	43
5.4.2.3 The mediating role of the Audience's emotional response	44
5.5 Results and Findings	47
6. Discussion	48
6.1 How do short video advertisements affect the audience's emotional experience	48
6.2 The mediating role of the audience's emotional response	50
7. Conclusion	51
7.1 Practical conclusion	51
7.2 Limitation and further research	53
7.2.1 Limitation	53
7.2.1.1 Research design	53
7.2.1.2 Selection of survey questions	54
7.2.1.3 Selection of respondents: target audience	55
7.2.2 Further research	55
References	57
Appendix	66

1. Introduction

1.1 Background

As the Internet continues to expand its reach, traditional forms of marketing like paper or TV advertisements are losing their influence on consumers. Videos have emerged as a highly sought-after form of online content in this digital era. Through brand advertising and active consumer engagement, video marketing has proven a popular tool for businesses to increase brand awareness and generate revenue from customers' impulse purchase intention. Research conducted by Anito indicates that sharing videos on social media has resulted in 93% of brands gaining new customers (Anito, 2021). With social media platforms like TikTok, Instagram, and YouTube on the rise, videos have become essential for companies to connect with their target audience and effectively promote their products or services. Based on the State of Video Marketing data conducted by Wyzowl (2023), 96% of video marketers acknowledge that video marketing has increased users' understanding of their products or services. And 96% of customers have watched explainer videos to learn about a product or service, and 89% have been convinced to purchase a product or service after watching a video in 2022. Moreover, according to Sandvine's report in 2023, video usage grew 24% in 2022, now equating to 65% of all internet traffic. And this trend indicated customers' preference for the video.

1.2 Trends in Video Marketing

The findings also indicate that 91% of businesses plan to use video as a marketing tool, and 70% of non-video marketers intend to start online video marketing in 2023, and 91% of consumers desire to see more online videos from brands. (Wyzowl,2023). These findings highlight that video marketing is a highly influential communication platform for both consumers and brand marketers, with the potential to drive significant growth and revenue. Under video marketing, short-form videos continue to increase and become the most effective social media content. Short-form video platforms like Instagram Reels and Youtube shorts help marketers be creative (HubSpot, 2022). Despite this growth, the effectiveness of short-form videos in driving impulse purchases remains a topic of debate. Impulse buying refers to the tendency of consumers to make spontaneous purchases without much

forethought, and this behaviour is often driven by marketing incentives and a sense of urgency or excitement. Therefore, companies could consider incorporating videos into their marketing strategies to take advantage of their potential to influence consumer behaviour and drive impulse purchases. This research will provide insight into how companies can implement this process more efficiently.

1.3 Bridge to the Gap

Despite the evidence on the effectiveness of certain features in videos in attracting and engaging consumers, it is still unclear how these features trigger emotional excitement and lead to impulse buying for unplanned products. To bridge this gap, this paper aims to apply SOR theory to explore how video factors in marketing can be stimuli, leading to the organism and evoking consumers' impulsive purchase behaviour response by conducting a series of surveys and analyses. Our findings will provide valuable insights for marketers and advertisers seeking to create effective video content to drive impulse purchases and increase sales. This study aims to contribute to the growing literature on consumer behaviour in short-form video marketing. Our goal is to shed light on the factors influencing impulse buying attention, help companies leverage videos' power to drive consumer engagement and increase revenue, and mainly focus on the short video context, one of the most fast-growing marketing methods. And our definition of a short video in our research area is among 2 minutes, which is long enough for companies to express their ideas with customers' undivided attention. By doing so, businesses can better understand what factors drive consumer behaviour and tailor their marketing strategies accordingly to achieve their goals and gain a competitive edge in the marketplace.

2. Literature review

2.1 Short video and short video marketing

Based on previous research, this article on the short video gives the following definition and related discussion: short video refers to a short in length, usually around two minutes, filmed in seconds by the creator and then edited and shared on social media platforms for all to view.

This study will focus on the short video content factors that cause users to have impulsive consumption.

The global popularity of short-form video platforms has contributed to the rapid growth of online users (Xie et al., 2019). Compared to traditional communication channels, short videos in the social media ecosystem have the unique advantage of being flexible in time. They can be rich in content presentation (Wang, 2020), offering a stronger visual experience, greater impact and immersion, creating a greater sense of presence, defined as the user's realistic perception of the media environment in which the individual may be fully immersed. In addition to this, Tellis et al. (2019) argue that short videos have a unique commercial value: content can be easily viewed and distributed across various mobile devices such as mobile phones and platforms, making it easier to develop its viral spread, often reaching a wide audience in a short period and at a relatively low cost, and thus also possessing certain social interaction properties. In addition, when the user base of a short-form video platform is large enough, such distribution is more likely to achieve its purpose as there is enough exposure.

The concept of short-form video marketing has emerged with the popularity of short-form video, which many brands have used with great revenue results. It has undoubtedly become important for many brands (Tang, Tan, et al., 2020). Canos-Bajo J (2017) argues that the benefits of short-form video marketing are significant and that a short-form video is a key tool for marketing li, Y., & Hayes, S. (2023). The data shows that 97% of video marketers said that videos increased the user's understanding of the product or service, and 76% said that videos helped them increase sales (Wyzowl, 2018).

Bottger et al's (2017) research showed that inspiration, such as short videos, is the most important factor in promoting consumers' impulse buying, which promotes users' internal psychological transition from accepting marketing to pursuing consumption. But content integration, usefulness, and convenience are not unique to short videos. Traditional static social media marketing also has these characteristics. To sum up, although previous literature has successfully pointed out the importance of short video marketing and provided cases of short video marketing, only a few studies have included a specific evaluation of its effectiveness or some specific analysis of its recommendations, neither explaining why short videos can improve the conversion rate of users' purchases (Wyzowl, 2018). Nor is there much to explain why impulse purchasing is so prevalent when consumers watch short videos.

For example, how short video content captures the psychology of the user and triggers such impulse purchases.

2.2 Review on stimuli: Short video content factors research

2.2.1 Informativeness

Short-form video content has gained significant popularity as a marketing strategy employed by companies looking to connect with consumers and influence their buying behaviour. The quantity of information conveyed in a video can profoundly impact consumers' purchasing habits in relation to short-form video content. Akpinar and Berger's research in 2017 found that informative videos provide detailed descriptions of product features, and online video advertisements with informativeness appeals can drive brand evaluations and purchases. Informativeness appeals are designed to stimulate cognitive processing by presenting objective information that describes the benefits of a product (MacInnis et al., 2002), such as its functions and appearance. As it can change customers' perceptions of the products, informative content can affect their emotions toward a product. More specific information on product features, as opposed to abstract brand information, enhances the informativeness appeal of visual content, making it an effective stimulus for evoking emotions (Rietveld et al., 2020).

Previous studies have focused primarily on the impact of information richness within a video on users' perceptions of a product or changes in their emotions rather than on the purchase behaviour itself. This research aims to investigate the relationship between information richness, emotional stimulation, and impulse buying behaviour.

2.2.2 Comments under Video (engagement)

The use of short video reviews by consumers to share their opinions on products and services has become increasingly popular in recent years. Researchers have started investigating the impact of these short video reviews on consumer behaviour, with social influence being a key factor. Kelman's (1958) social influence theory suggests that individuals are influenced by the behaviours and opinions of others in their social group. Therefore, when consumers watch short video reviews of other customers who have already purchased a product, they may feel

social pressure also to buy it. Recent analyses have shown that the valence of comments in short video reviews can significantly affect viewers' hedonic and eudaimonic entertainment experiences and subjective knowledge gain (Möller & Boukes,2021). Positive and enthusiastic comments in short videos can create a sense of excitement and urgency around the product, leading to an increased likelihood of impulse purchases. Conversely, negative reviews in short videos can decrease the likelihood of consumers making an impulse purchase.

The impact of short video reviews on consumer behaviour is significant. Companies need to pay attention to the comments customers leave on short videos and actively manage their online reputation to influence consumer behaviour. This study will further explore the relationship between comments under short videos and impulse purchases, building on the existing research to provide insights for companies seeking to leverage short video reviews for marketing purposes.

2.2.3 Virtual Haptics in Video

Virtual haptics is a technology that simulates the sensation of touching and feeling objects through visual and auditory cues. It has become an effective tool for companies to enhance consumers' sensory experience and influence their purchase intent through short videos. According to Luangrath et al. (2022), product touch has an active nature that can affect consumers' psychological ownership and product valuation, which can lead to a physical perception of the virtual hand feelings of ownership. The study shows that the “haptic substitution effect” is strongest for those highly stimulated by the immersive VR experience. Thus, incorporating virtual haptic content in short videos can create a more immersive and engaging experience that can increase the perceived quality and appeal of the product, leading to higher purchase intent.

The use of virtual tactile content in short videos to build unique product usage stories that infect audiences can become a powerful tool for enterprises to influence consumers' impulse buying behavior and enhance consumers' sensory experience and emotional response to products. While most current studies have explored the effect of virtual touch on static print advertising, this study aims to explore how the presentation of virtual touch in short videos affects impulse spending habits.

2.2.4 Price Discount

Short videos that feature discount information have become a popular marketing tool for companies seeking to influence consumers' purchasing behaviour. The inclusion of discount information in short videos can have a powerful impact on consumers' buying decisions. This is because consumers tend to perceive a discount as a relative gain, which can make them feel like they are getting a good deal (Johnson et al, 1999). Additionally, research on prospect theory suggests that people are more sensitive to losses than gains when faced with uncertain outcomes (Kahneman & Tversky, 1979). As a result, consumers may be more likely to impulse purchase when they perceive a discount as a limited-time opportunity to avoid a loss. While many studies have investigated the impact of discount messages on consumer behaviour in static online ads, few have explored their impact in short videos. This study seeks to fill that gap by analyzing the impact of discount information presented in short videos on consumer impulse behaviour and provide insight into how discount information in short videos can influence consumers' impulse buying behaviour. Ultimately, this research will contribute to a better understanding of the role of discount information in short videos as a marketing tool and help companies to develop more effective marketing strategies.

2.3 Emotion

Emotion refers to an individual's emotional response to an object stimulus, which has a more comprehensive impact on the individual's psychology and behaviour and is an internal stimulus that triggers the consumer's purchase decision(Sherman et al.,1997). Watson and Tellegen (1985) subdivided emotions into two different dimensions, positive and negative. The former is mostly about being happy and active; the latter is more negative and mostly about being sad and upset. The Positive and Negative Situation Scale (PANAS) was created. The questions used to measure an individual's positive emotions were mostly measured in terms of relaxation, pleasure, excitement, etc.

Emotions and cognition are closely related. The generation and expression of emotions are based on cognition(Roseman &Smith, 2001), and individuals' cognitive activities of external stimuli are also affected by emotions. Forgas(2003). pointed out that emotion has a crucial

impact on individual cognition and judgment. Schuch and Koch(2015) further analyzed this conclusion and found that positive emotion will stimulate consumers to produce positive emotional responses and judgments. On the contrary, negative emotions will cause individuals to make pessimistic reactions and judgments. In terms of consumer behaviour, Hassanein and Head (2007) found that in various emotional experiences, consumers' purchase intention is influenced by two kinds of emotional experiences, trust and pleasure, and such influence is positive. This positive influence will encourage users to have a positive cognition of consumption behaviour. For example, Mehta et al. (2006) found that positive emotions improve the recall of advertisements, and Bolls et al. (2001) again showed that when advertisements evoke positive emotional states, consumers can recall the content and even specific details of the advertisements well, i.e. they produce good advertising results. This means that video content can only achieve its intended video effect if it evokes a certain level of emotion in the consumer.

The research topic of this paper is the online shopping scene caused by marketing on the level of short video content. In this online shopping scene, there is no direct perception between consumers, merchants and commodities, which also reduces consumers' experience on the user level in various emotional experiences. Therefore, this paper will directly choose pleasure and trust as important indicators to measure the audience's emotional experience. In previous studies, many scholars have incorporated pleasure into the emotional experience of online shopping. Menon (2002) pointed out that the websites and product features that consumers are exposed to in the online shopping process will have an impact on their sense of pleasure, thus influencing their subsequent shopping behaviours. Mummalaneni(2005) studied the online shopping behaviour of consumers and found that in the consumption motivation of consumers, the web design of online stores will affect their consumption desire to some extent. The characteristics of websites will affect the degree of pleasure of consumers, which will then affect the subsequent consumption behaviour of consumers. Giraud (2001) noted a positive relationship between good mood and impulse buying, suggesting that those in a good mood tend to shop more irrationally or reward themselves more generously, thus becoming more impulsive. Many consumers also report that they feel happy and satisfied when making impulse purchases and that their impulse purchase decisions are largely influenced by these positive emotions (Liu et al., 2013). At the same time, due to the characteristics of online shopping, consumers cannot personally perceive the goods before purchasing, so online shopping will lead to the loss of trust of consumers to a

certain extent. Fung et al. (2002) pointed out that when consumers shop online, the quality of information on the website can encourage them to form a sense of trust in online shopping, thus affecting their shopping behaviour. Based on the above analysis, trust is an important emotion of consumers in the purchase decision-making process and a factor of this study.

In response to the above literature review, previous research has mainly explored the link between emotions and advertising effectiveness or traditional website shopping. This paper combines previous research and defines the viewer's emotional experience as the viewer's (consumer) psychological state when viewing the visual information presented in a particular environment. At the same time, we will discuss the emotions that viewers generate when viewing short videos, what videos what features will generate pleasure and trust, and how they influence consumers' impulse consumption.

2.4 Consumers' Impulse Purchase Behaviour

The generation of impulsive consumption behaviour is often based on the consumer's psychological activity, creating impulsive purchase intentions. Early scholars considered impulse buying behaviour as purchasing something other than everyday consumer goods (Kollat D T& Willett R P.,1969). Many scholars began to focus on the importance of other factors for impulse spending. Impulse purchases are often caused by a specific stimulus during the shopping process (Floh & Madlberger, 2013). The stimulus can be an actual product or an attribute of the product, information, and the product information embodied in a short video is often the selling point of the product.

Ajzen and Driver(1992) proposed that purchase intention will play a decisive role in consumers' purchase behaviour, and when consumers have purchase intention, purchase behaviour will occur. A significant number of consumers identify themselves as "impulse buyers," with an average of 38 percent of adults responding positively to the statement in an annual national survey between 1975 and 1992: "I am an impulse buyer "(DDB Needham Annual Lifestyle Survey 1974-1993). This finding encourages us to believe that an individual's impulse-buying tendency can be conceptualized as a consumption trait.

In the past, Stern (1962) has argued that impulse buying is related to the ease of purchase and that purchases are more likely to be impulse purchases when they are easy, i.e. when the expenditure of time, physical or mental energy is minimal, which is very much in line with the online social media ecosystem, where online consumption, because of its unique characteristics of being geographically unrestricted and having a wider choice of products, is more likely to make the desire to consume. This is very much in line with the online social media ecosystem. There is evidence that online shoppers are more likely to make impulse purchases than others (Donthu & Garcia, 1999). A 2000 Angus Reid Group survey found that 25% to 50% of consumers who shop online make impulse purchases and that the proportion of online impulse shoppers ranges from a quarter to over four-fifths of all online consumers. This impulsive behaviour, catalyzed by short videos, allows users to make purchase decisions within seconds. The purchasing behaviour of short video users is often considered instant, emotional and irresponsible as most of them do not have any purchase plan or intention and are therefore categorized as impulse buyers. Besides, impulse buying is likely to be encouraged in a pleasant shopping atmosphere (Crawford & Melewar, 2003; Kaur & Singh, 2007) . Therefore, what factors influence consumers' impulsive buying intentions and behaviours will likely be the focus of attention in both the business and academic worlds.

Although there is not much research on the impact of viewing short videos on consumers' impulsive purchase intentions, there are already scholars studying related areas; Dholakia (2000) has pointed out that impulsive purchase behaviour varies greatly by gender (*Figure 2.4*), with differences in performance of different types of products, for example, men are very prone to impulsive spending on electronics, while women are more pronounced on clothes and shoes (Statista, 2022). Meanwhile, other scholars have studied the impact of factors such as consumer self-control (Baumeister, 2022) and product variety (Yingyi Wu et al, 2019) on impulsive buying behaviour. When short videos are developing rapidly, and users' impulse consumption is becoming increasingly obvious in this ecology, it will be increasingly important to study consumers' willingness to make impulsive purchases, which is highly relevant for online marketers and future enterprises. This study, therefore, explores the impact of short video reviews, discounts, virtual haptics and product informativeness on consumers' impulsive consumption decisions from the perspective of short video content factors as external factors and develops a hypothesis model. Explore what directly causes consumers' immediate purchase behaviour when exposed to a simple and realistic experience.

3. Theoretical framework

3.1 SOR Model

3.1.1 Theoretical Overview

The SOR model (Stimulus-Organism Response) was proposed by Mehrabian and Russel in 1974. Mehrabian et al. thought that the original stimulus-response basic theory was too mechanized and objectified and viewed the organism as a product of mechanization in S-R. It ignores the subjective initiative and sociality of humans and other organisms, seriously ignores and violates the internal consciousness and subjectivity of organisms, and points out that different states of organisms can also affect the response triggered by stimuli. In the S-O-R theory, S is the variable: stimulus (external environmental factors), O is the intermediate variable: organism (individual emotional and cognitive responses), R is the outcome variable: The core idea of reaction R (individual attitude or behaviour response) is that when an individual is stimulated by environmental factors, his or her emotional state will change accordingly, triggering the individual's internal evaluation state, which can be considered organic and then lead to positive or negative behaviours towards the stimulus (Gao & Bai, 2014).

S-O-R theory not only confirms the influence of stimulus on people's external behaviour and response from the objective perspective, which can significantly observe and analyze the external performance, but also innovatively analyzes this process, puts forward the role of human consciousness from the subjective perspective, and realizes the variable study by self-observation and other ways. Based on the above literature review, previous studies mainly discussed the relationship between emotion and advertising effectiveness or traditional website shopping. Based on previous studies, this study defines emotional audience experience as the psychological state generated by the audience watching visual information presented in a specific environment. At the same time, it will study the emotions generated by users when they browse short videos, the pleasure and trust generated by the content, and how they affect consumers' impulsive consumption.

3.1.2 Application of S-O-R theory

Jacoby (2002) combined this model with marketing. He believed that consumers' purchase behaviour is caused by a stimulus, which includes two types: the stimulus in the external environment and the psychological stimulus generated by consumers. Therefore, the S-O-R model is often used in modern research to study consumers' shopping behaviour, through which the relationship between external stimulus, internal perception and consumer behaviour is established. Kawaf (2012) considered the environment, products, marketing and other factors. S refers to the antecedent variable: external stimuli when studying consumers' purchasing decision-making behaviour (Figure 3.4.2). O refers to the internal mechanical variable, which is the variable of mental activity after the stimulus is produced. There are two aspects: cognition, which produces a certain psychological process of purpose, and an emotional response, such as happiness, curiosity and so on. R is whether the consumer decides to buy after the emotion is generated. According to research, consumers' emotions will lead to a variety of reactive behaviours, such as purchase intention (Ha and Lennon, 2010) and approach behaviour (Eroglu et al, 2003, Menon and Kahn, 2002). In addition, consumers' emotions play an important role in purchasing behaviour, evaluation and decision-making process (Ladhari et al, 2008). Baker et al (1992) found that consumers' emotional state is positively correlated with their purchase intention.

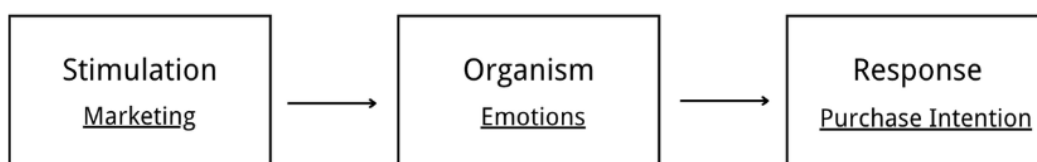


Figure 3.1.2-1

The application of the SOR model to the "marketing-emotion-consumer purchase behaviour" logic.

Based on the S-O-R framework to examine what external stimuli stimulate consumers to make decisions, Chang (2013) et al. developed and extrapolated a model of consumer decision-influencing factors based on the S-O-R theory and information processing theory. In this context, product information and evaluation recommendation content are used as stimuli for purchase decision behaviour. The cognitive and affective perspectives are conceptualized as network relationship strength, perceived risk, and perceived judgement as internal response processes of the organism. The study pointed out that different online relationship

strengths for high-risk products have different decision responses. Products recommended by strong relationship sources have more significant purchase decision behaviours than those recommended by weak relationships. In addition, many scholars have discussed applying the S-O-R theory in e-commerce, taking web pages' basic characteristics, structure and layout as external stimulus variables. The short video is developing rapidly, but less research uses short video content characteristics as external stimulus variables to study consumers' purchase intention. In this study, the S-O-R model will be used to study the impact of various factors of short video content on the audience's impulse consumption intention.

Through a review of the literature and a study of theoretical foundations, and on the basis of a summary of previous research on the relationship between variables, this paper categorizes the variables related to short video content into four areas: informativeness(IR), user comments (PC) on short video platforms, price discounts(PD), and virtual haptics(VH). It also combines the stimulus-organism-response model theory to form a preliminary research model for the following study:

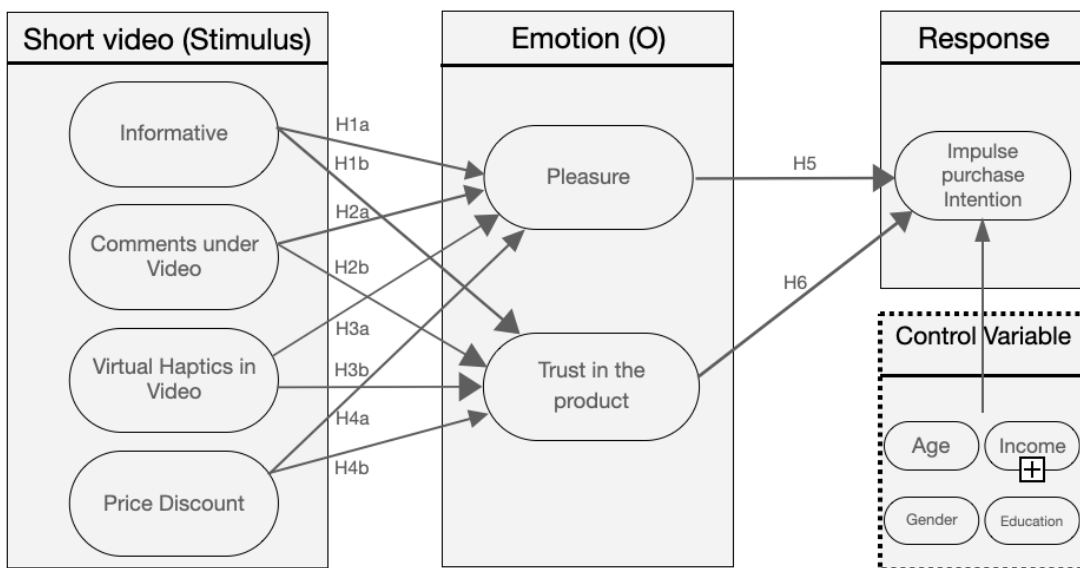


Figure 3.1.2-2 SOR Hypothesis Model

The product use scenario content output by the short video helps consumers to fully understand the product information while helping them to immerse themselves in the selling points of the product, increasing consumer pleasure and trust, promoting a strong perception of the value of the product, thus stimulating the consumer's desire to increase the possibility

of making impulsive purchase decisions. In addition, other users' comments on short videos can also influence the effectiveness of short video marketing. Consumers often browse popular comments on short videos in order to avoid bias in information acquisition affecting the buying experience, and these messages stimulate impulsive consumer desire by inspiring the herd mentality of users. This type of consumer will often look at all aspects of the product they are buying from different sources before making a purchase.

3.2 Setting the hypothesis on the impact of short video content factors

3.2.1 Informativeness and emotional experience

Our research focuses on the impact of short video advertisements on the audience's attention span to the product, considering the audience's limited attention span. We examine the concept of 2-minute information richness in short video ads, which refers to the ability of short video ads to provide sufficient information. Gao et al.(2021) believes that the amount of information in short video advertisements affects the audience's attention to the product to a large extent. This study focuses on the relationship between the concept of information richness and customer pleasure and trust. botger et al. (2017) found in a previous study that the vitality of advertising can positively impact customer motivation, while Gao et al. (2021) found that the richness of information can also motivate customers, beyond the requirements of frequency and variability.

Our study aims to examine the relationship between the informativeness of short-form video advertisements and customers' pleasure and trust in them. Drawing on previous research, we highlight the factors that informativeness influences trust and propose the hypothesis that informativeness has a positive impact on customer trust in short-form video advertising:

H1a: The informativeness of short video advertisements has a positive impact on consumer pleasure in the product.

H1b: The informativeness of short video advertisements has a positive impact on consumers' product trust.

3.2.2 The comments under the short video (engagement) and emotional experience

The opinions and personal experiences shared in comments under short videos can greatly influence the audience's feelings of pleasure and trust towards the advertised product. By examining what individuals make comments about on the videos that they have watched, Day (2018) found that is usually because people enjoy watching that, or they have had positive experiences with it, which can create a sense of validation and connection with other customers who share similar experiences, and they may feel that their decision to purchase the product was justified and shared by others.

Positive reviews can enhance customers' trust in the product by providing social proof and validating the product's quality. However, negative reviews on social media platforms can also become part of the brand conversation that is not controllable by the company that uses social media marketing (Ho-Dac, Carson, & Moore, 2013; Kohli, Suri, & Kapoor, 2014). Therefore, this paper proposes two hypotheses to investigate the impact of customer reviews on social media platforms:

H2a: The comments under the short video (engagement) ads have a positive impact on consumers' pleasure with the video.

H2b: The comments under the short video (engagement) ads have a positive impact on consumers' perception of product trust.

3.2.3 Virtual haptics and emotional experience

Adding "virtual haptics" to short videos can provide customers with a more attractive and immersive experience, which refers to short videos rendered by storylines. Constructing product usage scenarios can enhance their positive emotions, improve their sense of reality (Tsai, M. C.,2020), and provide customers with sensory experiences beyond visual and auditory stimuli. Through haptic feedback, customers are actively involved in the video content, which makes it easier for customers to experience pleasure and satisfaction.

Meanwhile, Product story construction based on product usage scenarios in short videos has the potential to enhance customers' trust in the advertised product or service, based on the findings proposed by Bailenson et al. (2007) that touch can increase trust in other contexts.

By creating a more realistic and credible experience, virtual haptic feedback can make the product feel more tangible and trustworthy to customers. This, in turn, can increase the perceived quality of the advertised product or service and lead to higher levels of engagement with the advertisement, as customers are more likely to believe the claims made and trust the information provided.

Using virtual haptic feedback in short videos can also confer a competitive advantage by setting the advertisement apart from competitors through content innovation. Given these potential effects, this paper proposes hypotheses to test the impact of haptic feedback on consumers' emotional responses to short videos:

H3a: Virtual haptics in short video advertising has a positive impact on consumer pleasure.

H3b: Virtual haptics in short video advertising has a positive impact on consumer's perception of product trust.

3.2.4 Price discount information and emotional experience

The use of exclusive price discounts in short-form video ads is a strategy aimed at influencing consumers' emotional perception of the advertised product, ultimately increasing the effectiveness of sales. Research by Kempf (1999) has shown that emotional responses, such as pleasure, are critical in shaping participants' evaluations of the trial experience. By perceiving that they are receiving a good deal or offer, customers may experience heightened pleasure and satisfaction from their purchase, as well as reduced anxiety and stress. This enhanced enjoyment can create a sense of reward and excitement for customers, resulting in a more positive shopping experience (Lee & Yu, 2018). Additionally, price discounts can attract new customers who may have been skeptical about the product or service, increasing their trust in the advertisement and the company.

However, not all customers may be willing to take advantage of price discounts from less trusted sites, as they may believe that the lower price may compromise the quality of the product (Bansal & Zahedi, 2015) identified this conflict phenomenon, which can impact the effectiveness of price discounts in short-form video ads. Therefore, this study will propose

hypotheses to investigate the impact of price discounts on consumer behaviour and emotions in the context of short-form video ads:

H4a: The price discount information in short video ads has a positive impact on consumer pleasure.

H4b: The price discount information in short video ads has a positive impact on consumers' product trust.

3.3 Setting the hypothesis on the impact of emotional response (Pleasure and Trust)

The emotional response that viewers have to a short video advertisement can have a significant impact on their initial perception of the product or service being promoted, including its potential usage scenario. If the viewer is pleased by the video, it may lead to a stronger desire to possess the advertised product, which in turn can positively influence their purchase intention. Ha & Lennon (2010) have suggested that pleasure is positively related to purchase intention, as customers who experience delight from a video ad may be more likely to make a purchase. Additionally, the perception of the trustworthiness of the product or service can further strengthen the likelihood of purchase intention, as customers may perceive less risk in buying the advertised product (DAM, 2020). This increased sense of trust in the product or service can also lead to impulse buying, as customers feel more confident in the value and quality of the advertised item. In light of these possible outcomes, we propose the following hypothesis to investigate the relationship between positive emotions, trust, and purchase intention:

H5: Pleasure with the video has a positive impact on consumers' impulse purchase intention.

H6: Trust in the video has a positive impact on consumers' impulse purchase intention.

3.4 The mediation effect of Customers' Pleasure and Trust

The emotional experience of customers while watching a short video advertisement can have a significant impact on their perception of the product or service being promoted. Specifically, when customers experience positive emotions such as pleasure, they may

transfer these emotions to the product or service, resulting in a more positive perception of it. This positive perception can lead to a reduction in the perceived risk of purchasing the product or service, as well as an increase in trust in its quality and reliability. According to Wulf et al (2004), the transfer of positive emotions to the product or service can influence customers to perceive it in a more positive light, thus enhancing their trust and reducing their perceived risk. The positive emotional experience of customers during the video advertisement can lead them to believe that the product or service is less risky, and this can further enhance their purchase intention. Therefore, it is important to investigate if there's a mediation effect of emotions and increased trust (organism in the model) between stimuli and response. In order to test the relationship between positive emotions and increased trust in the product or service, a hypothesis will be formulated.

H7: Pleasure in the audience's emotional experience mediates between the content of short video ads and the audience's impulse purchase intention.

H8: Trust in the emotional experience of the audience mediates between the content of Short video ads and audience impulse purchase intention.

4. Methodology

4.1 Research design

In this research, our chosen approach involves the utilization of a questionnaire survey as the primary method for data collection. To ensure the effectiveness of our study, we will commence by conducting a review of relevant literature. This will help us in identifying appropriate measurement scales that are pertinent to our investigation. The questionnaire itself will be designed into four main sections, each serving a distinct purpose related to the research objectives.

The initial segment of the questionnaire will primarily focus on collecting basic information from the participants. This section will serve as a means to establish control variables and gather essential demographic data such as age, gender, and income. These variables are important for later analysis and interpretation.

The subsequent section of the questionnaire will concentrate on measuring the specific characteristics of short-form video advertisements. The aim here is to gauge the informativeness as well as assess elements such as short video comments, virtual haptics, and the presence of price discount information. These variables are considered crucial factors in evaluating the content of short-form video ads on various social media platforms.

The third section of the questionnaire will delve into the measurement of users' emotional experiences. This section seeks to examine the extent to which individuals derive pleasure from short video ads and their level of trust in the products being advertised. These emotional responses play a significant role in shaping consumer behaviour and perceptions.

Lastly, the fourth section of the questionnaire will focus on measuring impulsive purchase intention, which serves as an indicator of individual response. By evaluating this variable, we aim to understand the propensity of participants to engage in impulsive buying behaviours following exposure to short video ads.

In total, our study encompasses seven core variables, excluding the control variables mentioned earlier (age, gender, and income). Those core variables are categorized based on the stimulus-organism-response model, which serves as the conceptual framework for our research. Specifically, the first part of the study addresses the content characteristics of short video ads on social media platforms (informativeness, comments, virtual haptics, and price discount information reveals), the second part delves into emotional experiences (short video ads pleasure, and trust in the product), and the third part focuses on individual responses in terms of impulsive purchase intention. Moreover, we have included a screening question at the beginning of the questionnaire. This question aims to identify consumers who have prior exposure to short video ads. We specifically target individuals who regularly view these videos, as they represent our desired population for obtaining valid and reliable data.

4.2 Data Collection

The survey questions will be developed based on the literature review and will be validated by a panel of experts in the field of marketing at Synlighthet, a social media company.

For this study, a sample size of around 310 consumers will be selected. These participants will be chosen through convenience sampling, which involves selecting individuals from various online platforms. The selection process will aim to ensure diversity within the sample population. Data collection will be carried out using 2 online survey platforms. All participants will be required to provide informed consent before proceeding with the survey, and their privacy and confidentiality will be strictly maintained throughout the study. The collected data will be subjected to quantitative statistical analysis techniques. These techniques will enable us to examine and interpret the data in a numerical and objective manner, providing valuable insights into the research objectives.

The survey will be conducted using both offline and online channels. The target audience for this research primarily consists of users who regularly watch short video advertisements. Considering that this user group tends to be younger in age, the questionnaire will be specifically tailored towards individuals born after 1980. Different convenience sampling approaches will be employed for the offline and online research methods. In the case of offline data collection, there will be around 20 surveys collect in person, focusing on locations around campuses. On the other hand, for online data collection, online survey platforms such as Google Forms and Wenjuanxing (WJX) mainly for Chinese students, will be utilized as the primary means of distribution. To encourage participation, rewards will be offered to consumers. Upon completion of the survey, participants will be entered into a random draw for a chance to win a cash prize of 50SEK, with a total of 10 places available.

The survey questions will be designed using the Likert scale method, a commonly employed statistical measurement approach. This method involves a series of questions that exhibit high similarity in nature, with the assumption that the importance levels between these questions can be considered equal. Therefore, additional weighting measures will not be required during the later stages of analysis (Batterton & Hale, 2017). Each question will present a situation or scenario, and participants will be provided with a five-point scale ranging from 1 to 5 to indicate their response. The Likert scale method is known for its simplicity and ease of implementation. It is widely utilized in various fields, as it effectively facilitates linear numerical analysis and enables the calculation of average values.

4.3 Variables

Variables in the questionnaire

- **Informativeness**

Q1. I think short video ads on social media are a good source of product information, providing relevant product information.

Q2. I think short video ads on social media will provide all the important information about products.

- **Comments under the short video**

Q1. I think comments under the short video will affect my perception of the products' quality directly.

Q2. I think positive comments under the short video ads will trigger my pleasure in the product.

Q3. I think positive comments under the short video will affect my sense of trust

- **Virtual haptics**

Q1. I think short video ads with virtual haptics can catch my eyes and bring me into the short video scenario more efficiently

Q2. When I'm watching a short video ad with virtual haptics, I can feel the product's relevance properties deeper.

- **Price discount**

Q1. I think the price discount or promotional offers in the short video will attract my attention.

Q2. I think the discounted price or promotional offer in a short video will stimulate my pleasure with this product.

- **Pleasure**

Q1. I usually will focus on the content if I open a short video.

Q2. I will feel satisfied when I see the video message(include positive comments)

Q3. If I make an impulsive purchase based on a short video ad, it brings me a sense of pleasure.

- **Trust**

Q1. I trust the short video content of the product because it is produced and reviewed by the official team and platform.

Q2. I believe that consumer reviews can show the real experience of using the product.

Q3. I think the using scenario of the product in the short video enhanced my trust in the product features.

- **Impulse purchase behaviour**

Q1. Short video ads will lead me to engage in unplanned, impulsive purchasing behaviour.

Q2. Short video ads will make me unable to control my desire to purchase, leading to buying behaviour.

4.3.1 Independent variables

Under the SOR model, we have split our independent variables into Stimuli and Organism. Stimuli refer to the various factors present within the short video content that have the potential to evoke an emotional response from consumers. These factors include content characteristics that capture consumers' attention and influence their emotional state, here we mean the short video's informativeness, positive comments' impact, virtual haptics, and price discount information reveals. On the other hand, the organism represents the consumers themselves and their emotional reflection or response to the stimuli presented in the short video. This emotional response can have an impact on consumers' subsequent impulse purchase behavior, specifically the pleasure after watching the short video content and the trust on the product led by the short video.

4.3.2 Mediating variables

Mediating variables are variables that come between the independent variable and the dependent variable in a chain. It helps explain the relationship or mechanism through which the independent variable influences the dependent variable. Mediating variables provide insight into the underlying processes or mechanisms that link the independent and dependent variables. Applying the SOR model in our research, the organism part will be the mediating variable that we will discuss. The organism represents the consumers themselves and their emotional reflection or response to the stimuli presented in the short video. This emotional response can have an impact on consumers' subsequent impulse purchase behavior, specifically the pleasure after watching the short video content and the trust on the product led by the short video.

4.3.3 Dependent variable

Based on the SOR model, we have further examined the response factor and categorized it as the dependent variable of our study. As previously mentioned, stimuli represent the triggers embedded within the video content that evoke emotional responses, while the organism signifies how consumers' emotional state impacts their inclination to engage in impulsive purchases. In this context, the response pertains to the observable behavior or reaction displayed by individuals as a consequence of the interaction between the stimulus and the organism. In our research, we are particularly interested in exploring the variable known as impulse purchase intention. Impulse purchase intention refers to the predisposition or inclination of individuals to make unplanned or spontaneous purchases driven by the emotional influence arising from the stimuli encountered within the short video content. By examining impulse purchase intention, we aim to gain insights into the likelihood and extent of impulsive buying behavior influenced by the emotional responses evoked by the stimuli within the videos.

4.4 Data Analysis

After the data collection processes, we will proceed with the analysis of the gathered information. To provide a comprehensive overview of the data, we will employ visual summary statistics, such as histograms, which will aid in depicting the descriptive characteristics of the collected data in a graphical format. This approach will enable us to visually assess the distribution and central tendencies of the variables under investigation.

Furthermore, for the multi-item variables identified in the questionnaire, we will employ Confirmatory Factor Analysis (CFA), validity, and reliability analyses to assess the data and results. CFA allows us to confirm the underlying factor structure proposed in the study by examining the relationships between observed variables and latent constructs. This analysis technique will help us validate the measurement scales used in the survey and determine the extent to which they accurately capture the intended concepts. Additionally, reliability and validity tests will be conducted to assess the internal consistency of these multi-item variables, ensuring that they yield reliable and consistent results. Lastly, we will use the regression analysis to test if the hypothesis can be accepted or rejected.

By utilizing these data analysis methods, we aim to generate quantitative results that will serve as the basis for drawing conclusions and making interpretations in our research. The visual summary statistics and CFA will provide insights into the descriptive and structural aspects of the data, respectively, while the validity and reliability analyses will offer an evaluation of the measurement scales' consistency. And the regression analysis to prove our hypothesis. Through this analysis process, we will derive meaningful and reliable quantitative findings, facilitating a comprehensive understanding of the research objectives.

5. Findings

5.1 Data Descriptive

5.1.1 Variable Abbreviations Description

Variables	Abbreviations in analysis part
Informativeness	IR
Comments	PC
Virtual haptics	VH
Price discount	PD
Pleasure emotion	EM
Trust	TRU
Impluse purchase intention	IP

Figure 5.1.1 The abbreviation for the variable name

5.1.2 Results of descriptive statistics of the basic status of the respondents

	Statistical indicators	Respondents	Percentage
GENDER	female	173	55.8%
	male	137	44.2%
AGE	18-25	166	53.5%
	26 -30	92	29.7%
	31 -40	44	14.2%
	41-45	6	1.9%
	Above 45	2	0.6%
EDUCATION LEVEL	High school	12	3.9%
	Bachelor degree	191	61.6%
	Master degree	106	34.2%
	PhD	1	0.3%
CURRENT STATUS	Student	162	52.3%
	Employed	134	43.2%
	Unemployed	5	1.6%
	Other or Prefer not to say	9	2.9%
MONTHLY INCOME	Below 10,000sek	122	39.4%
	10,000~15,000sek	104	33.5%
	15,000~25,000sek	55	17.7%
	Above 25,000sek	19	6.1%
	Prefer not to say	10	3.2%
FREQUENCY OF WATCHING SHORT VIDEO	None, I don't watch short video.	4.00	1.3%
	1-2 days	57.00	18.4%
	3-4 days	93.00	30.0%
	5-6 days	69.00	22.3%
	7 days	87.00	28.1%

Figure 5.1.2-1 Demographic information

There are 310 respondents participated in this research among which the distribution of various statistical indicators is shown in the table below. These insights in the following parts provide a glimpse into the demographics and characteristics of the survey respondents, shedding light on important factors that may influence their perceptions and behaviors related to short video content. The findings can be used to inform further analysis and draw conclusions regarding the research objectives and implications.

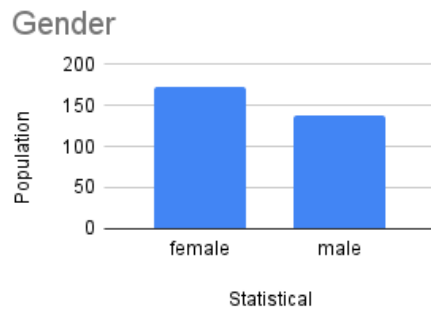


Figure 5.1.2-2 Respondents' Gender Distribution

The survey sample consisted of 55.8% female participants and 44.2% male participants (Figure 5.1.2-2). This indicates a relatively balanced representation of both genders within the study.

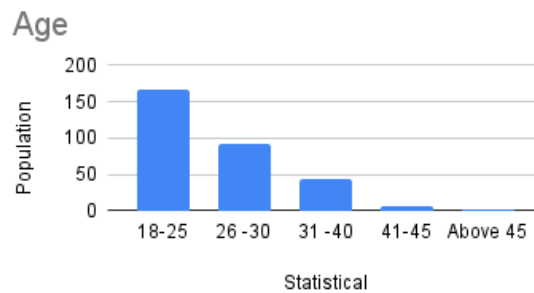


Figure 5.1.2-3 Respondents' Age Distribution

The majority of participants, accounting for 53.5%, fell within the 18-25 age range (Figure 5.1.2-3). This suggests that the younger demographic was more prevalent among the respondents. Additionally, participants aged 26-30 constituted 29.7% of the sample, while those aged 31-40, 41-45, and above 45 represented smaller proportions.

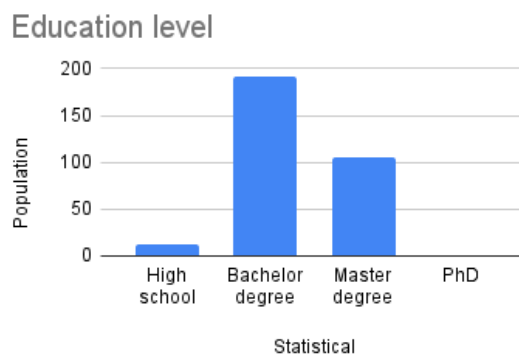


Figure 5.1.2-4 Distribution of education level of sample objects

The largest group of participants, comprising 61.6%, held a bachelor's degree, followed by 34.2% who had a master's degree (*Figure 5.1.2-4*). This indicates that the majority of respondents had attained higher education qualifications, suggesting a relatively educated sample population. A small proportion of participants had a high school education (3.9%), and a negligible percentage had a Ph.D. (0.3%).

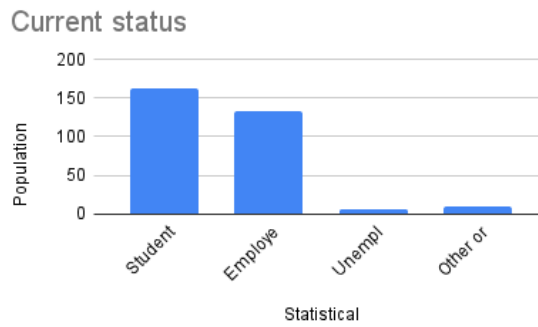


Figure 5.1.2-5 State distribution of sample objects

Among the participants, 52.3% identified as students, while 43.2% were employed (*Figure 5.1.2-5*). A small percentage, 1.6%, reported being unemployed, and 2.9% either fell into the "Other" category or preferred not to disclose their current status.

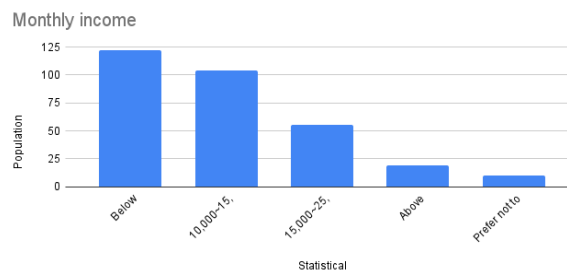


Figure 5.1.2-6 The state distribution of the respondents' monthly income

In terms of monthly income (*Figure 5.1.2-6*), the largest group of participants (39.4%) reported earning below 10,000 SEK. Approximately one-third of the respondents (33.5%) had an income ranging between 10,000 and 15,000 SEK, while 17.7% reported earning between 15,000 and 25,000 SEK. A smaller proportion (6.1%) indicated earning above 25,000 SEK, and 3.2% preferred not to disclose their income.

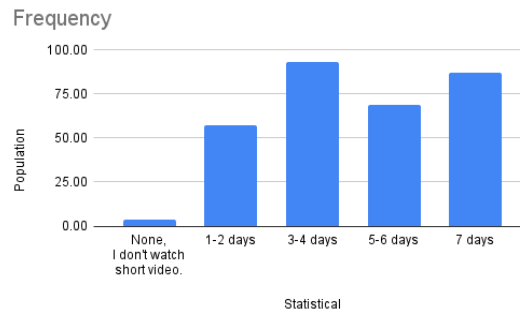


Figure 5.1.2-7 Distribution of respondents' frequency of viewing short videos in a week

Regarding the frequency of watching short videos (*Figure 5.1.2-7*), the majority of participants (28.1%) reported watching short videos every day. Other significant segments included those who watched 3-4 days a week (30.0%) and 5-6 days a week (22.3%). A smaller proportion reported watching short videos 1-2 days a week (18.4%), while only a small percentage (1.3%) stated that they did not watch short videos at all.

All the statistics collected show that both genders are engaged in watching short videos, with a slightly higher percentage of women. Younger individuals, particularly those in the 18-25 age range, are more likely to be exposed to short video content and influenced in terms of impulse buying behavior. Respondents with higher education levels, such as bachelor's and master's degrees, demonstrate a greater level of critical evaluation and consumer awareness. Students and employed individuals constitute a significant portion of the sample population, suggesting diverse motivations and financial considerations for impulsive purchases. Participants with lower monthly incomes, below 10,000 SEK, appear to be more susceptible to the influence of short video content on impulse buying. Finally, participants who watch short videos more frequently exhibit higher engagement and potential impact on their impulse purchase intention. All of this information shows how important the role of social media plays in people's daily life, which makes research on short video ads on social media more meaningful.

5.2 Confirmatory factor analysis (CFA)

Usually there are two methods of factor analysis (DeCoster, 1998), the EFA (Exploratory Factor Analysis) and CFA (confirmatory Factor Analysis). As here as we already have a SOR model with clear dimensions, CFA will be used to verify the known dimension. For the

overall fit between the questionnaire data and the model, we built a structural model through Jamovi, based on the measurement system between the different dimensions of the questionnaire in this study, after the model was drawn and entered the questionnaire data, the model fitting operation can be carried out, the specific model is shown in Figure 5.2-1.

Path Diagram

[5]

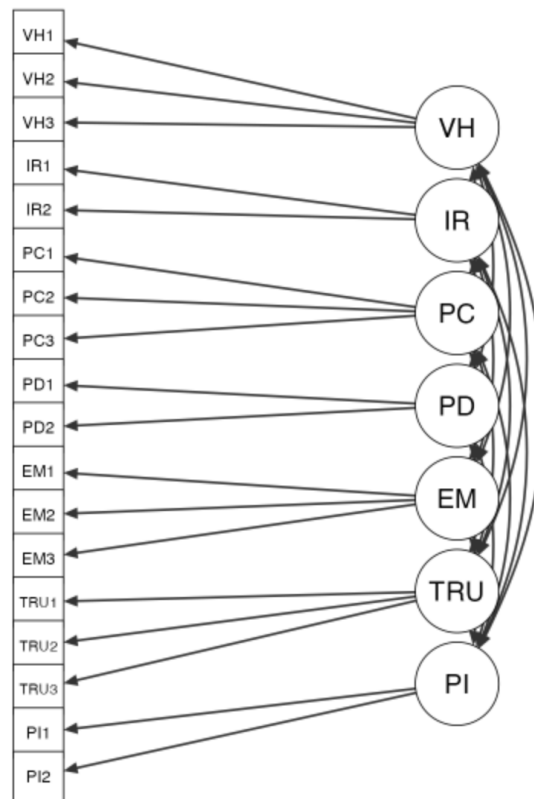


Figure 5.2-1 Path Diagram

Two different types of metrics are used for the overall fit in this paper, these two different types of fit metrics are absolute and value-added. The absolute goodness-of-fit indicators are derived from two different matrices, the actual and the theoretical matrices. The actual corresponds to the data matrix and the theoretical corresponds to the model matrix, which is the RMSEA (Root Mean Square Error of Approximation) will be used in this study; the value-added fit indicators allow for the analysis of different models, one independent and the other waiting to test the theoretical dimension, which is the TLI and CFI are also used in this study.

RMSEA presumes that if a model has a fit of zero, it indicating the best fitting. Meanwhile, if the RMSEA falls into 0.05 to 0.08, it indicates a satisfactory fit (Xia & Yang, 2019). Here, as

our model has a value of 0.0534, it has a satisfactory fit. Both CFI (Comparative Fit Index) and TLI (Tucker-Lewis Index) are the relative fit index. And the values are somewhere in between 0 to 1, a value of zero indicate the worst possible model whereas a value of one indicates the best, and so the ideal standard value for them is greater than 0.9 (Maydeu-Olivares & García-Forero, 2010). Here the figure 5.2-2 shows the value of CFI and TLI are 0.939 and 0.919 respectively, which means the model has met the criteria of satisfactory fit.

The overall fit measures through the JAMOVI model are tabulated in Figure 5.2-2:

Fit Measures		
CFI	TLI	RMSEA
0.939	0.919	0.0534

Figure 5.2-2 Model fit measures

Taken together, this questionnaire has achieved satisfactory fit in the model fit with CFI > 0.9, TLI > 0.9, RMSEA between 0.05 to 0.08, and passed the test for all of the above-selected indicators and the fit has a decent result, which indicates that the value-added factor model is satisfied in terms of fit and can be taken forward.

5.3 Validity and Reliability

Validating and ensuring the reliability of a test is crucial for data analysis and the analysis measures what it is intended to measure (Borsboom et al., 2004), while reliability testing confirms that the test is consistent and stable in measuring the intended factors (Roberts & Priest, 2006). The concepts of validity and reliability are interconnected, as an invalid test renders reliability meaningless. Conducting both validity and reliability tests is necessary to establish the trustworthiness and accuracy of our data analysis and measurements, and in the following sections we're going to discuss them.

5.3.1 Validity

For questionnaires, validity is a measure of validity and correctness. The validity test examines the efficiency of the items in the scale. The higher the validity, the better the questionnaire's intended characteristics are represented in the results and the more valid and correct the design (Mohajan, 2017). This section will examine two broad aspects of scale validity, namely content validity and construct validity (Messick, 1987).

5.3.1.1 Content validity

In terms of content validity, as the questionnaire items in this study were designed after careful study of the theoretical literature, the definition and analysis of the various variables in terms of both their conceptual and content dimensions were completed, and the final scales were developed by referring to existing mature and classical scales. At the same time, we consulted with experts in the field and held several rounds of discussions during the initial development of the scale, and made certain modifications based on these discussions to ensure that the items in the scale were well adapted to the content of the variables. Based on this work, a scale with good content validity has been developed.

5.3.1.2 Construct validity

This study focuses on the construct validity of the questionnaire, as mentioned in the previous section that the questionnaire has good content validity. In order to check the construct validity of the questionnaire, we have conducted a factor-loading analysis.

The reliability and validity test in this paper includes AVE (Average variance extracted) and CR (composite reliability) indicators. In general, a p-value of less than 0.001 is usually considered to be a statistically significant difference (Andrade, 2019), and the AVE should be at least half 0.5, in order for the scale to have good convergent validity and be acceptable (Cheung et al., 2023). As the Figure 5.2-3 of data generated by Jamovi is shown below, all factors have AVE that is larger than 0.5, which indicates that all of the factors have achieved a satisfactory convergent validity. Despite certain standard estimates falling below the threshold of 0.5, indicating a less favorable performance, a decision has been made to retain them based on their overall reliability, as evidenced by the composite reliability (CR) and average variance extracted (AVE).

Factor	Indicator	Stand.Estimate	p	CR	AVE
VH	VH1	0.632	< .001	0.78	0.544
	VH2	0.493	< .001		
	VH3	0.572	< .001		
IR	IR1	0.468	< .001	0.777	0.637
	IR2	0.596	< .001		
PC	PC1	0.556	< .001	0.8	0.572
	PC2	0.593	< .001		
	PC3	0.649	< .001		
PD	PD1	0.541	< .001	0.799	0.666
	PD2	0.618	< .001		
EM	EM1	0.434	< .001	0.757	0.512
	EM2	0.509	< .001		
	EM3	0.619	< .001		
TRU	TRU1	0.659	< .001	0.777	0.542
	TRU2	0.433	< .001		
	TRU3	0.606	< .001		
PI	PI1	0.741	< .001	0.882	0.788
	PI2	0.78	< .001		

Figure 5.3.1.2 Factor analysis.

5.3.2 Reliability

In order to conduct the reliability test to investigate the consistency of our analysis, the composite reliability data is used. Usually, the AVE and CR values range from 0 to 1, with higher values indicating a higher level of reliability. Meanwhile, AVE equal to or greater than 0.5 confirms the presence of convergent validity (Shrestha, 2021). The CR (composite reliability) values ranging from 0.6 to 0.7 are considered acceptable, but for better reliability, the values should exceed 0.7 (Fornell & Larcker, 1981). As shown in the data that was generated in figure 5.2-3. All the factors have CRs that are larger than 0.7, and PC and PI achieved more than 0.8, which shows good factors with high consistency and good reliability, and the data is reliable and meaningful for conducting the research.

5.4 Regression analysis

5.4.1 Correlation analysis

In this section, we are going to conduct a correlation analysis to investigate the relationship between the independent variables (VH, IR, PC, PD, EM, TRU) and the dependent variable (PI). Regression analysis is a scientific method used to study the relationship between different variables. In general, the correlation coefficient takes values between -1 and 1 (Schober & Boer, 2018), indicating the strength and direction of the relationship between two variables. In this study, we will use the Pearson correlation matrix to measure the strength of the relationship between each variable and the others. The results will provide us with a better understanding of the relationship between the variables and will help us to determine which independent variables have a significant impact on the dependent variable. In this part we used the Jamovi to generate the correlation matrix to measure the correlation between each variable, and the specific results can be seen in Figure 5.3-1.

Correlation Matrix		*VH	*IR	*PC	*PD	*EM	*TRU	*PI
*VH	Pearson's r	—						
	p-value	—						
*IR	Pearson's r	0.538 ***	—					
	p-value	<.001	—					
*PC	Pearson's r	0.539 ***	0.454 ***	—				
	p-value	<.001	<.001	—				
*PD	Pearson's r	0.471 ***	0.496 ***	0.516 ***	—			
	p-value	<.001	<.001	<.001	—			
*EM	Pearson's r	0.521 ***	0.555 ***	0.609 ***	0.505 ***	—		
	p-value	<.001	<.001	<.001	<.001	—		
*TRU	Pearson's r	0.578 ***	0.665 ***	0.589 ***	0.515 ***	0.680 ***	—	
	p-value	<.001	<.001	<.001	<.001	<.001	—	
*PI	Pearson's r	0.515 ***	0.468 ***	0.467 ***	0.435 ***	0.548 ***	0.542 ***	—
	p-value	<.001	<.001	<.001	<.001	<.001	<.001	—

Note. * p < .05, ** p < .01, *** p < .001

Figure 5.4.1-1 Correlation Matrix

Based on the correlation matrix provided (Figure 5.3-1), all variables are significantly correlated with each other, with p-values less than 0.001. The highest correlation coefficient

is observed between TRU and IR ($r=0.665$), followed by the correlation between PC and IR ($r=0.555$), and the correlation between EM and PC ($r=0.609$). The correlation between the independent variables and the dependent variable (PI) is also significant, with VH, IR, PC, PD, EM, and TRU all showing positive correlations with PI. The highest correlation is observed between TRU and PI ($r=0.542$), followed by the correlation between EM and PI ($r=0.548$). Meanwhile, the plot graph in the following (figure 5.3-2) visualized the result of the relationship, and the positive slope line emphasized that there are positive relationships among all variables.

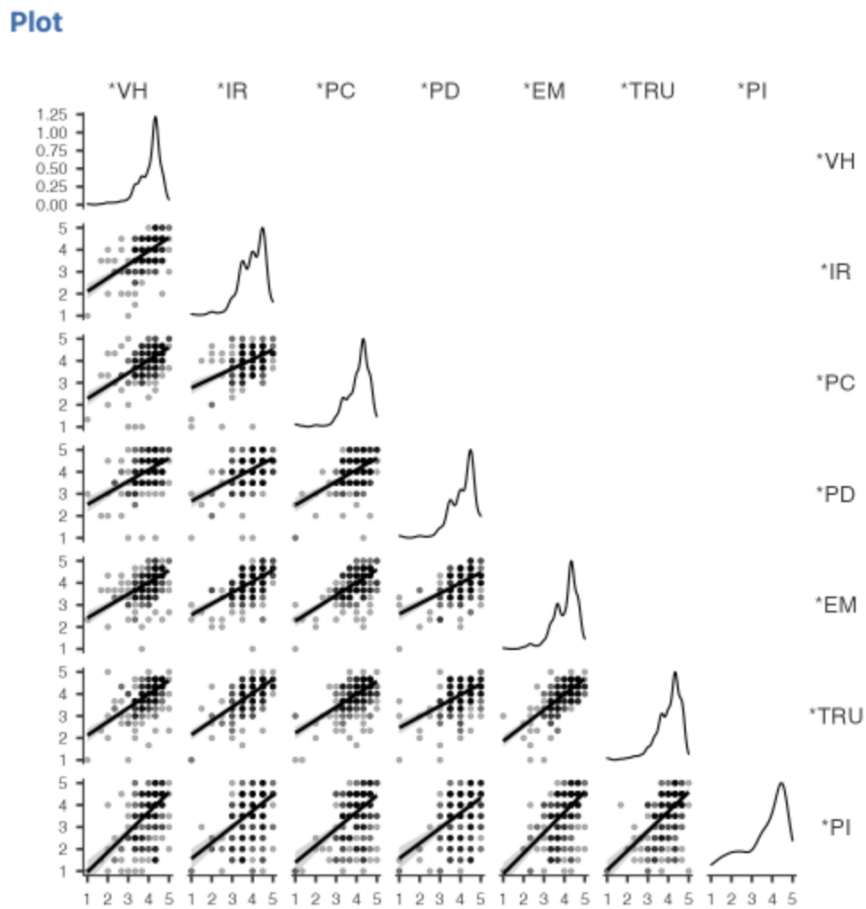


Figure 5.4.2-2 Visualized plot of correlation matrix

These results suggest that all independent variables are positively correlated with the dependent variable, indicating that they may have a positive impact on the purchasing intention of the audience. Additionally, the high correlations between some of the independent variables suggest that there may be some multicollinearity present in the data. Further analysis, like regression analysis, is going to explore this in more detail in the following part.

5.4.2 Regression analysis among variables

This study employed the method that Baron and Kenny Method (B-K Method) has proposed, which is a commonly used statistical approach that consists of the following steps:

- Firstly, we examined whether the independent variable, the content of short video ads, has a significant impact on the mediating variable, viewers' emotional experience.
- Secondly, we assessed whether the mediating variable, viewers' emotional experience, significantly affects the dependent variable, viewers' purchase intention.
- Thirdly, we conducted a regression analysis including both the independent variable, the content of short video ads, and the mediating variable, viewers' emotional experience, to determine if there are significant effects on the dependent variable.

In the last step, if the influence of the independent variable on the dependent variable changes from significant in the first step to nonsignificant, while the mediating variable's effect remains significant, it indicates that viewers' emotional experience fully mediates the relationship between the content of short video ads and viewers' purchase intention. If the influence of the independent variable on the dependent variable remains significant, similar to the first step, but with a decrease in the coefficient, while the mediating variable's effect remains significant, it suggests that viewers' emotional experience partially mediates the relationship.

5.4.2.1 Short video ads factors on consumer emotion responses (S-O)

Emotional pleasure

Regression analysis is a statistical technique used to examine the relationship between one or more independent variables and a dependent variable.

To test our hypothesis, we will first analyze the relationship between the independent variable (stimuli) and the mediator variable (organism). Correspondingly, in these two sections, we will further analyze the connection between short video ad content (four variables) and the audience's emotional response. As the mediator variable of the audience's emotional experience has two different dimensions, namely, the feeling of pleasure and the feeling of trust, we will analyze each dimension separately.

In this case, we examine the relationship between four independent variables (VH, IR, PC, and PD) and one dependent variable (Emotion of pleasure). With the help of Jamovi, the results of the regression analysis are shown in Figure 5.4.1.1-1.

Model Fit Measures							
Model	R	R ²	Adjusted R ²	Overall Model Test			
				F	p	df1	df2
1	0.703	0.494	0.487	74.3	< .001	4	305

Figure 5.4.2.1-1 Model fit for emotion of pleasure

The model fit measures in the output shows that the model is a good fit for the data. The R-squared value of 0.494 indicates that approximately 49.4% of the variation in Emotion reflection can be explained by the four independent variables in the model. The adjusted R-squared value of 0.487 takes into account the number of independent variables in the model and adjusts the R-squared value accordingly.

The F-test is used to determine if the model as a whole is significant. The F-value of 74.3 and the p-value of less than 0.001 indicate that the model is significant, meaning that at least one of the independent variables is related to Emotion reflection.

Model Coefficients - *EM				
Predictor	Estimate	p	SE	t
Intercept	0.693	< .001	0.202	3.43
*VH	0.132	0.017	0.0549	2.41
*IR	0.236	< .001	0.047	5.02
*PC	0.339	< .001	0.05	6.78
*PD	0.124	0.009	0.0476	2.61

Figure 5.4.2.1-2 Model coefficients of EM (emotion of pleasure)

The coefficients table (figure 5.4.1.1-2) shows the estimated regression coefficients for each independent variable, along with the standard error, t-value, and p-value. The intercept value of 0.693 indicates the predicted value of the Emotion of pleasure when all of the independent variables are zero. The p-values for each independent variable indicate whether each variable is significantly related to the Emotion of pleasure. In this case, all four independent variables

have p-values less than 0.05, indicating they are all significantly related to the Emotion of pleasure reflection. The estimate column indicates the size of the relationship between each independent variable and Emotion reflection. For example, for every one-unit increase in VH, the Emotion of pleasure is predicted to increase by 0.132 units.

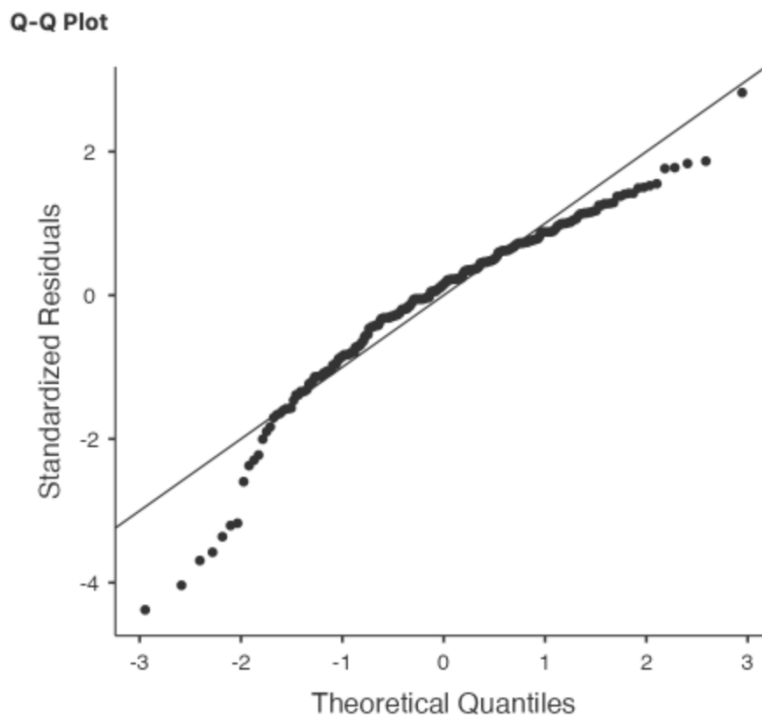


Figure 5.4.2.1-3 Theoretical Quantiles between four stimuli and organism of emotion pleasure

A Q-Q plot is short for the quantile-quantile plot, which is a graphical tool for assumption checks, to assess whether a set of data follows a particular distribution or not. It is a plot of the quantiles of one dataset against the corresponding quantiles of another dataset, typically a normal distribution.

In the Q-Q plot, the data is sorted and plotted against the expected quantiles of a theoretical distribution, such as the normal distribution. If the points on the plot fall roughly along a straight line, then it suggests that the data follows the expected distribution. On the other hand, if the points deviate from a straight line, then it suggests that the data does not follow the expected distribution. Using the Jamovi, here we have generated the graph of a Q-Q plot under the relationship between four stimuli and one organism emotion of pleasure (figure 5.4.1.1-3), and it shows a certain similar trend in the graph, especially in the middle part from quantiles -2.5 to quantile 1. But generally, it shows the normal trend of the relationship, showing a fairly straight line, with only minor deviations from it.

Trust

In this part, we performed a multiple regression analysis to explore the relationship between the four independent variables (VH, IR, PC, and PD) and the dependent variable, trust. The multiple regression model tests whether the independent variables can predict the variation in the dependent variable.

Model Fit Measures							
Model	R	R ²	Adjusted R ²	Overall Model Test			
				F	df1	df2	p
1	0.757	0.574	0.568	103	4	305	< .001

Figure 5.4.2.1-4 Model fit for trust

Data under the model fit measures table show the model fit is good (Model R = 0.757, R² = 0.574, Adjusted R² = 0.568, F = 103, df1 = 4, df2 = 305, p < .001), indicating that the model can explain a significant portion of the variation in the dependent variable.

Model Coefficients - *TRU				
Predictor	Estimate	SE	t	p
Intercept	0.2951	0.1928	1.53	0.127
*VH	0.1871	0.0524	3.57	< .001
*IR	0.3826	0.0448	8.53	< .001
*PC	0.2596	0.0477	5.44	< .001
*PD	0.0954	0.0454	2.1	0.037

Figure 5.4.2.1-5 Model coefficients for trust

The coefficients of the independent variables show their contribution to the prediction of the dependent variable. The intercept is 0.2951 (SE = 0.1928, t = 1.53, p = 0.127), indicating that when all the independent variables are zero, the predicted value of the dependent variable is 0.2951. Among the four independent variables, three of them have a significant positive relationship with the dependent variable: VH (Estimate = 0.1871, SE = 0.0524, t = 3.57, p < .001), IR (Estimate = 0.3826, SE = 0.0448, t = 8.53, p < .001), and PC (Estimate = 0.2596, SE = 0.0477, t = 5.44, p < .001). This suggests that higher scores on these variables are associated with higher levels of trust. However, one independent variable, PD, has a weaker, but still significant, positive relationship with the dependent variable (Estimate = 0.0954, SE

= 0.0454, $t = 2.1$, $p = 0.037$). This suggests that higher scores on PD are associated with higher levels of trust, but the relationship is not as strong as the other three variables.

Overall, these results suggest that VH, IR, PC, and PD are significant predictors of trust, with IR being the strongest predictor, followed by PC, VH, and PD.

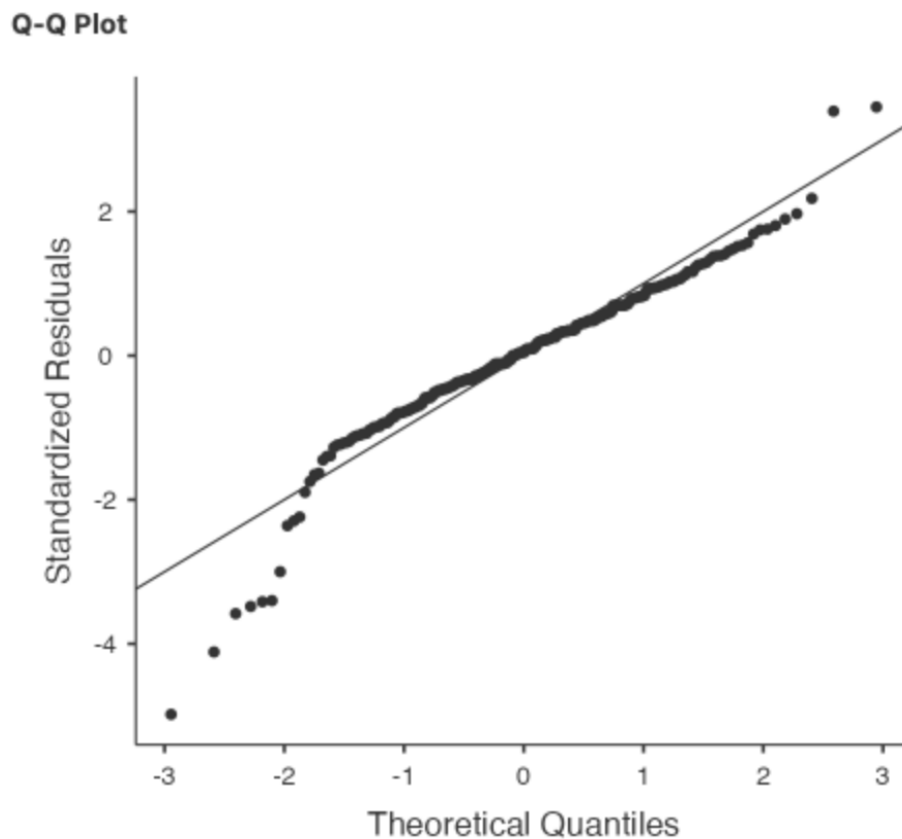


Figure 5.4.2.1-6 Theoretical quantiles between four stimuli and trust

Figure 5.4.1.2-3 shows a certain similar trend in the graph, especially in the middle part from quantiles -2 to quantile 2.5. But generally, it shows the normal trend of the relationship, showing a fairly straight line, with only minor deviations from it.

5.4.2.2 Emotional responses on impulse purchase behaviour(O-R)

Next, we verified whether there is a direct causal relationship between audiences' emotional experience (organism in the SOR model) and audience impulse purchase intention (response in the SOR model). The two dimensions of audiences' emotional experience, i.e., pleasure and trust, were regressed together in the regression equation, and the results are shown in figure 5.4.2-1.

Model Fit Measures							
Model	R	R ²	Adjusted R ²	Overall Model Test			
				F	df1	df2	p
1	0.595	0.354	0.35	84	2	307	< .001

Figure 5.4.2.2-1 Model fit between EM, TRU and Impulse purchase desire

To examine the relationship between the independent variables EM and TRU and the dependent variable impulse purchase intention, we conducted a multiple linear regression analysis. The overall model fit was significant ($F = 84$, $p < .001$), indicating that the model explains a significant amount of the variance in impulse purchase intention.

Model Coefficients - *PI				
Predictor	Estimate	SE	t	p
Intercept	-0.658	0.341	-1.93	0.054
*EM	0.569	0.107	5.34	< .001
*TRU	0.516	0.102	5.03	< .001

Figure 5.4.2.2-2 Model coefficient of impulse purchase

The coefficients model results showed that both EM ($b = 0.569$, $SE = 0.107$, $t = 5.34$, $p < .001$) and TRU ($b = 0.516$, $SE = 0.102$, $t = 5.03$, $p < .001$) had a significant positive effect on impulse purchase intention. The intercept was also significant ($b = -0.658$, $SE = 0.341$, $t = -1.93$, $p = 0.054$), suggesting that even when both EM and TRU are zero, there is still a negative baseline level of impulse purchase intention.

Therefore, both EM and TRU are important predictors of impulse purchase intention.

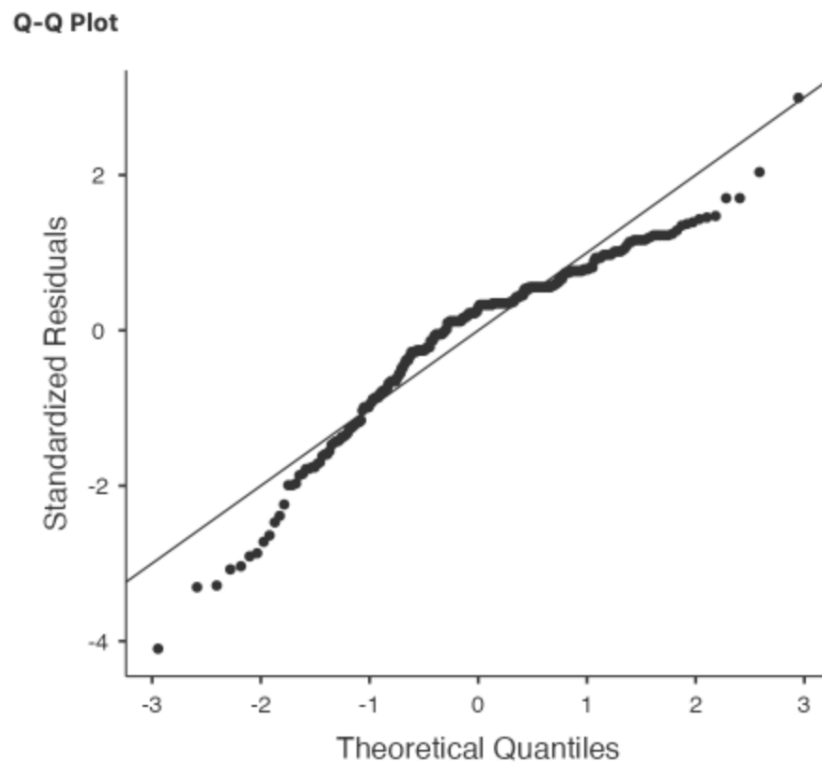


Figure 5.4.2.2 -3 Theoretical quantiles between EM, TRU and Impulse purchase desire

Similarly, the Q-Q plots show a consistent trend between the variables, especially from quantiles -1 to 1. Also indicated that the relationship is a normal distribution, and showing there's a noticeable relationship between emotions and impulse purchase behaviour (O-R).

5.4.2.3 The mediating role of the Audience's emotional response

Based on the given information, we used the regression analysis to test the mediation effect of emotional experience (EM) between the independent variables virtual haptic (VH), information richness (IR), positive comments (PC), price discount (PD) and the dependent variable impulse purchase intention (PI). The results of the regression analysis are as follows:

Coefficients	Model	Unstandardized B	Standardized Coefficients Beta	Sig.
1	(Constant)	-1.275		0.001
	*VH	0.456	0.259	<.001
	*IR	0.285	0.184	0.002
	*PC	0.287	0.176	0.003
	*PD	0.206	0.13	0.025
2	(Constant)	-1.597		<.001
	*VH	0.395	0.224	<.001
	*IR	0.175	0.113	0.055
	*PC	0.13	0.08	0.193
	*PD	0.148	0.094	0.099
	*EM	0.464	0.272	<.001

Figure 5.4. 2.3-1 Mediating test by comparing coefficient without or with organism factors(EM)

Based on the results shown above, all independent variables have a significant effect on the dependent variable PI in both models (coefficient 1 and 2 in figure 5.4.3-1), except for PC, IR, and PD in Model 2(coefficient 2 in figure 5.4.3-1), which is not significant ($p = 0.193$; 0.055 , and 0.099). Other than these, other variables have a significant effect on the mediator EM in Model 2. Meanwhile, the mediator EM has a significant effect on the dependent variable PI in Model 2 ($p < .001$).

Finally, when the mediator (EM) is included in the model 2, the coefficient of the independent variables decreased compared to Model 1. The coefficient of VH decreased from 0.456 to 0.395, and the coefficients of PD and PC became non-significant. These results suggest that EM partially mediates the relationship between VH, PD, PC, and PI. And even it is partial mediation, it still proves the presence of a mediation relationship, just there may have other factors that may affect the relationship.

In the following part, we're going to discuss the medication effect of trust (organism in SOR model) between short video content factors (S) and impulse purchase intention (R).

Coefficients	Model	Unstandardized B	Standardized Coefficients Beta	Sig.
1	(Constant)	-1.275		0.001
	*VH	0.456	0.259	<.001
	*IR	0.285	0.184	0.002
	*PC	0.287	0.176	0.003
	*PD	0.206	0.13	0.025
2	(Constant)	-1.387		<.001
	*VH	0.385	0.219	<.001
	*IR	0.139	0.09	0.158
	*PC	0.189	0.116	0.057
	*PD	0.17	0.107	0.061
	*TRU	0.38	0.232	<.001

Figure 5.4.2.3-2 Mediating test by comparing coefficient without or with organism factors(TRU)

The given information shows the results of a multiple regression analysis that explores the relationships between the independent variables VH, IR, PC, PD and the dependent variable PI, as well as the role of a potential mediator variable Trust (TRU).

In model 1(coefficient 1 in figure 5.4.3-2), the results suggest that all four independent variables have a significant positive effect on the dependent variable PI. Specifically, VH, IR, PC, and PD have beta coefficients of 0.259, 0.184, 0.176, and 0.13, respectively. These coefficients indicate that a one-unit increase in each independent variable leads to a corresponding increase in PI by 0.259, 0.184, 0.176, and 0.13 units, respectively.

In model 2 (coefficient 2 in figure 5.4.3-2), a potential mediator variable (TRU) is added to the model, along with the four independent variables. The results show that VH, IR, PC, and PD have standardized beta coefficients of 0.219, 0.09, 0.116, and 0.107, respectively. These coefficients indicate that a one-unit increase in each independent variable leads to a corresponding increase in TRU by 0.219, 0.09, 0.116, and 0.107 units, respectively.

The mediator variable TRU has a significant positive effect on the dependent variable PI, with a beta coefficient of 0.232. This coefficient suggests that a one-unit increase in TRU leads to a corresponding increase in PI by 0.232 units. And the results indicate that the indirect effect of each independent variable on PI through TRU is significant, as evidenced by the reduction in the beta coefficients of VH, IR, PC, and PD from model 1 to model 2.

Based on these results, it can be concluded that TRU partially mediates the relationship between the independent variables VH, IR, PC, and PD, and the dependent variable PI.

According to the analysis above, it can be concluded that the emotional experiences of pleasure and trust (Organism) in the audience play a partial mediating role between the independent variables of short video advertisement content, and the dependent variable of audience impulse purchase intention.

5.5 Results and Findings

After conducting a series of analyses, including descriptive statistics, validity and reliability tests, correlation analysis, and regression analysis on the variables of short video content, consumer emotion response, and impulse purchase intention (SOR), it can be concluded that the hypothesis regarding the relationship among these variables was confirmed. The results suggest that there is a significant correlation between these variables, indicating that short video content can have a significant impact on consumer emotional response, which, in turn, affects their impulse purchase intention. These findings have important implications for businesses and marketers who seek to use short video content as a marketing tool to influence consumer behaviour.

Hypothesis	Results
H1a: The informativeness of short video advertisements has a positive impact on consumer pleasure in the product.	Accept
H1b: The informativeness of short video advertisements has a positive impact on consumers' product trust.	Accept
H2a: The comments under the short video (engagement) ads have a positive impact on consumers' pleasure with the video.	Accept
H2b: The comments under the short video (engagement) ads have a positive impact on consumer's perception of product trust.	Accept
H3a: Virtual haptics in short video advertising has a positive impact on consumer pleasure.	Accept
H3b: Virtual haptics in short video advertising has a positive impact on consumers' perception of product trust.	Accept
H4a: The price discount information in short video ads has a positive impact on consumer pleasure.	Accept
H4b: The price discount information in short video ads has a positive impact on consumers' product trust.	Accept
H5: Pleasure with the video has a positive impact on consumers' impulse purchase intention.	Accept
H6: Trust in the video has a positive impact on consumers' impulse purchase intention.	Accept
H7: Pleasure mediates the relationship between the content of short video ads and consumers' impulse purchase intention.	Accept
H8: Trust mediates the relationship between the content of Short video ads and audience impulse purchase intention.	Accept

Figure 5.5 Hypothesis test results

6. Discussion

In this part, through the previous theoretical research, combined with the results of data analysis and hypothesis verification conducted by the author in the research process, the study is summarized. The framework of this study starts from the basic model of stimulus-organism-response. The conclusion will discuss the influence mechanism of short video advertising content on the audience's emotional response, and how emotional response plays an intermediary role in this process, so as to extract the analysis conclusions of this paper.

6.1 How do short video advertisements affect the audience's emotional experience

Through empirical analysis and verification of data, it is concluded that short video advertising has four dimensions on the content level. Namely Virtual haptics (VH), Informativeness(IR), Comments under the short video (PC), and Price discount(PD) Can positively and significantly affect the audience's emotional experience.

For the audience, when they watch short video advertisements, the duration of each short video is very short, and due to the product design on the current short video advertising platform, the audience can switch videos very quickly. Therefore, if the audience can have a sense of pleasure during the watching process, it indicates that they are interested in the content. At the same time, if the audience has a sense of trust in the process of watching, it indicates the recognition of the content. Therefore, the quality of short video advertising content will affect the audience's emotional experience. Here is the analysis:

In the actual communication process of short video advertisements, we know that the audience's attitude towards short video advertisements generally has two states: one is to try to have a deeper understanding of the information of a certain product, such as functions and product attributes, and to look for answers from short video advertisements with this purpose; The second is to touch the relevant short video with a recreational attitude in the aimless situation, and inadvertently become the marketing object of short video advertising.

For the audience group in the first state with a strong purpose of information acquisition, in terms of the pleasure of emotional experience, they will deliberately pay full attention to the

price, quality, popularity and other factors when searching for advertising information related to commodities or services, and look for the necessary introduction content of commodities. Short video advertisements prepare these knowledge for the audience, and try to show them completely and fully so that the audience can fully understand the details, performance and use experience of these products through the video, that is, the richness, effectiveness and quality of product information will make the audience feel that short video advertisements enable them to grasp sufficient and effective information to make consumption decisions. And share information with other consumers on social platforms. In this case, the audience can get the information they want with the highest efficiency, which can effectively save their time cost and opportunity cost, and make them feel certain happiness. At the same time, the virtual sense of touch brought by the consumption scenes in the video, namely the user's product usage scenes reflected in the advertisement, will have a positive impact on the impulse purchase intention of consumers. In other words, if consumers have a strong sense of virtual experience for this product and a positive emotional response to short video advertisements, they will have a strong desire to buy.

In short, if advertisers want to make existing or potential consumers feel the virtual tactile perception of products when watching short video advertisements, and then generate impulse purchase intention, they should focus on how to reasonably and innovatively arrange the presentation of product information within a limited time, so as to attract people's attention while viewing the whole picture of the product. It mainly uses the features of video, dynamic images, visual and sound effects, to present users' use scenes of products through pictures, and express product use experience in a more three-dimensional, accurate and pictorial way, so that users can feel the characteristics of products personally, stimulate their senses, cause their emotional changes, and thus promote the generation of consumption desire. Comments under short videos will also affect the audience's feelings after watching short videos. Positive and interesting user comments will make the audience willing to interact. On the one hand, they can interact with the content of short video advertisements and make comments; on the other hand, they can also interact with other users on the short video platform, and gain happiness in this process. The product discount can make the audience feel that the product is more cost-effective when watching the video, which will make the audience feel happy, because at this time it is a perfect opportunity to buy a desired product, and at the same time save a lot of money, and have the convenience or practicability brought by the product features, which will make the audience feel happy. Marketers strategically push this

incentive through short video ads to keep consumers engaged. Therefore, in terms of content, the richness of product content, virtual touch, interactive comments of the audience under the video, and price discounts for short video advertisements can make the audience experience more pleasant feelings in the process of watching. In addition, when other users share their positive experience of using the product, they will quickly arouse the emotions of the audience who have never bought the product. For example, the audience may quickly think of the short video they just saw about the product experience of a certain function, then the virtual tactile part is particularly important. On the contrary, negative comments will also affect the audience's impression of the product. Audiences all have a herd mentality, so positive comments will greatly affect the inner emotions of the audience. Inspire the pleasure of owning the product in the future.

For the audience group in the second state, when they are exposed to short video advertisements, they do not have a clear purpose of consumption and shopping, and often just accept the information of short video advertisements in a state of seeking entertainment. The correspondence between the message under the short video advertisement and the Internet hot spots provides a very suitable outlet for the audience's emotional needs in this aspect. At the same time, if the audience has already felt obvious excitement and pleasure in surfing the Internet before clicking on the short video advertisement, the content nature of the short video advertisement is enough to keep this kind of emotional state for a while. Therefore, we can conclude that when the audience is in the state of seeking entertainment without a clear purpose, short video advertising can form a significant positive correlation with their emotional response.

6.2 The mediating role of the audience's emotional response

In this study we applied the SOR framework theory. Emotional response acts as the intermediary mechanism of the "organism" in the whole framework. Therefore, before the empirical link, we hypothesized that the intermediary effect exists. In fact, the results of the empirical analysis do support the conclusion that emotional response can show sufficient mediating effect. Generally speaking, if the audience receives the external stimulus in some form, it will produce a corresponding emotional response, which will lead to some concrete influence on its behavior. Therefore, when the audience is stimulated through the channel of a

short video advertisement, some corresponding emotional changes will occur, and the direction of these emotional changes is related to the mode and the characteristics of the short video advertisement itself. Under the effect of this emotional response, the audience will choose some behaviors to adjust their own emotional response, and completing shopping consumption behavior is a form of this regulation.

Therefore, we came to the conclusion that one of the mechanisms of short video advertising is to influence the emotional response of the audience and make them produce corresponding behaviors, that is, to change the purchase intention. Therefore, the variable of emotional response can be an intermediary variable in the correlation between the two.

7. Conclusion

7.1 Practical conclusion

As far as enterprises are concerned, we can put forward the following suggestions regarding the influence mechanism of short video advertisements on audience groups studied in this paper: Firstly, the amount of information in the current society is very large and complex, which leads to the mass of the public surrounded by a lot of information, many people need to disperse their time and energy to deal with various sources of information separately, which leads to the obvious fragmentation of time. Short video advertising is a new marketing mode in the background of this era. The research of this paper shows that the four dimensions of virtual haptics (VH), informativeness (IR), short video comments (PC) and price discount (PD) all have positive effects on audience's emotional experience. At the same time, both pleasures in emotional experience and trust in short videos can effectively promote the growth of consumers' purchase intention. Therefore, relevant marketers should have a clear goal and focus in the process of making short video advertisements. Short video marketers can integrate some experience factors in new marketing methods into the process of network marketing, so as to accurately and effectively convey the information to the audience, so as to achieve the best marketing effect. Specific countermeasures can include the following parts:

First, companies need to make it clear that there is a close and sufficient correlation between the goods or services they are trying to sell and short video ads. Both need to have the same target audience and product-related elements that can be effectively communicated to the consumer base. In the production of short video advertising, the first thing to grasp the outstanding characteristics of the short video itself, in a "short" time to quickly catch the eyes of consumers. At the beginning, it should be eye-catching enough to convey certain product information, so that the audience can have a positive initial impression of the product and create memory points. Then, the selling points of the product are gradually displayed, and technical expression is also needed to meet the audience's demand for understanding the product. At the same time, the selling point of the product can be expressed in a three-dimensional way by showing the usage scenes of the product, and the audience can be immersed in the functional experience of the product, which can help the audience feel the pleasure brought by the selling point of the product more realistically and increase their trust in the use of the product, even the trust in the video. In addition, it is also a good choice to add incentive information in short video advertisements to stimulate consumers' purchase desire by means of promotions such as discounts and limited-time offers. Compared with the static display of discount information, the length and dynamic picture of the short video will make the discount information more urgent, and the presentation of product selling points in the video will stimulate the audience's pleasure more.

But to be clear, all short video advertising content production must be based on the knowledge of the product. Only when you have enough knowledge of the product can you know which direction is suitable for making short video advertising content and which direction you should focus on. After all, short videos have limited time and it is impossible to show all these elements perfectly.

In addition, companies need to focus on comment interaction, which many marketers may overlook. Short video advertising can bring a sufficient interactive environment for the audience, which is the unique advantage of this marketing model. Therefore, enterprises need to do a good enough design on the interactive ability of short video advertising, so that it has a better ability to attract audience groups. For example, the comments at the top, the most prominent and the most liked can play a strong "leadership" role, which will greatly affect the emotional changes of consumers. The comments most trusted by consumers are from other

users who are not part of the marketing team, so the marketing staff can properly manage these comments and guide users to share the positive consumption experience of the product. Finally, this study also found that many features of short video ads have a positive and significant impact on consumers' impulse purchase intention. In order to successfully translate this intention into purchase behavior, it is best to include a way to obtain such products in the short video, or add a purchase link below the video, because when the audience has a certain level of trust in the product and video, they will naturally assume that the store's products are of high quality, as the video shows. It is also important to note that access to such products must be simple, quick and reliable. Otherwise, the audience needs to jump to another page to search for such products, which is easy to be transferred by other information in the search process, killing consumers' purchase desire and causing the loss of customers.

7.2 Limitation and further research

7.2.1 Limitation

Through literature review, and empirical analysis in a quantitative study, this research examines the influence mechanism of video advertisements under the short video context on audience purchase intention at the content level, as well as the mediating role of audience emotional experience of pleasure and trust between the two variables. The conclusions drawn in this study provide evidence supporting the hypotheses stated earlier and achieve satisfactory results. However, in addition to the findings mentioned above, this study also has certain limitations and points that can be improved. Specifically, these include the following aspects, from the data collection, survey questions, and sample selection.

7.2.1.1 Research design

The research we have utilized in this study is quantitative research, which has demonstrated the relationship among various factors and validated our hypotheses. However, there are also certain limitations that may lead to some biases in the findings.

Firstly, when analyzing the phenomenon, we focused on numerical data and statistical analysis, which may oversimplify the complex situation. By emphasizing the collection of quantifiable variables' information, our study may overlook the richness and subtle differences that qualitative data can provide. Thus, it may not fully capture the depth and complexity of the relationship between the variables and impulse purchase intention. It might be helpful if we add some q&a questions to get some qualitative answers and gain some insights from other variables.

Secondly, other than the data that we collected, our variables are also predetermined in a SOR model and this may lead to overlooking other important factors that could affect the outcomes, like other factors in the short video ads that can affect customers' emotions or impulse purchase intention. Consequently, the full complexity and multidimensionality of the research question may not be fully reflected, and may also limit the exploration of new investigative paths during the study, potentially missing extra valuable insights.

7.2.1.2 Selection of survey questions

In the section of our survey question design, the limitation is the lack of contextual explanation on our variables. As quantitative methods prioritize measurable variables, it often neglects the broader social, cultural, or other factors that can potentially influence the research subject.

In the context of studying short video content, for example, this approach may overlook the impact of other factors, such as video tones, background music, and editing styles, on user experience. This limitation hinders the exploration of interactions between variables and contextual dynamics (such as virtual haptics, which we didn't show the video example in the survey). In order to further improve the credibility and applicability of the findings, if the number of samples could be expanded in this study would greatly strengthen the result. Due to time constraints, this questionnaire collected a sample of only 310 and was mainly through the online survey, which may have some self-reporting bias (Donaldson&Grant-Vallone, 2002) compared to a face-to-face information collection, of which only 20 were collected offline.

Secondly, if the number of questions in the questionnaire could be increased would enrich the analysis and improve the overall representativeness of the study results, which could grasp its

impact on the audience's purchase intention from a more comprehensive perspective. If there were more time and resources available, we could add 1-2 questions under each dimension, meanwhile, it would be beneficial to incorporate additional variables into the research to enrich the model and strengthen its explanatory power.

Therefore, future research should aim to include a larger and more diverse pool of short-form video ads to gain a more detailed understanding of the mechanisms that influence audience behaviour.

7.2.1.3 Selection of respondents: target audience

Another limitation happens in the selection of our respondents, firstly, due to the requirements of our study, we excluded students under the age of 18 from our sample. However, recent studies have shown that students under 18 spend a considerable amount of time each day watching short videos on their mobile devices, and they represent a significant portion of the core audience for short videos. Therefore, their exclusion from our sample may limit the representativeness of our research results.

Additionally, our survey data revealed a predominance of participants with a background in undergraduate or graduate studies, with a limited number of middle-aged and elderly individuals. As a result, there may be a potential bias in our research findings, as they may not accurately reflect the behaviours and perspectives of the middle-aged and elderly population.

7.2.2 Further research

With the development of the internet, like 4G to 5G... short video ad has become a trendy way for both marketer and consumers to post or receive messages (Zhou, 2021). As in the future, the trend will continue, there's a necessity for people to continue doing research in this field. Reflecting on this research, we have some suggestions that hopefully can support future research.

Firstly, in order to gain a more comprehensive understanding of the research topic, researchers can employ mixed methods by combining quantitative and qualitative data and analysis in further study to overcome the limitations and get deeper insights into the effect of

participants' experiences, perceptions, and motivations on their purchase intention and behaviour. Conducting interviews, focus groups, or case studies can offer a richer understanding of the underlying factors influencing the variables and provide a more holistic perspective on the research topic (Atieno, 2009).

Secondly, in future research, some variables can be added, and the researchers can conduct a comparative analysis. In contrast to analyzing the content of a short video, it can emphasize different kinds of audiences. For example, comparing the effects of short video advertisements across different demographics, cultures, or geographic locations can shed light on the influence of contextual factors. By examining how different groups or regions respond to the same advertisements, researchers can identify unique patterns, cultural nuances, or variations in the impact of these advertisements, contributing to a more comprehensive understanding of their effectiveness.

Moreover, in the future investigation, researchers can conduct a study on Long-term Effects that leads to short video ads on consumer behaviour, including post-purchase satisfaction and repeat purchase intentions. By studying the entire consumer journey on short video ads, from pre-purchase exposure to post-purchase experiences, researchers can uncover valuable insights into the effectiveness and implications of short video advertising in shaping consumer behaviour and decision-making.

References

- Ajzen, I., & Driver, B. (1992). Application of the Theory of Planned Behavior to Leisure Choice. *Journal of Leisure Research*. 24(3):207-224. Available online: https://www.researchgate.net/publication/232514699_Application_of_the_Theory_of_Planned_Behavior_to_Leisure_Choice
- Animoto. (2021). Animoto Survey: 93% of brands landed a new customer after sharing a video on social media. Available online: <https://www.prnewswire.com/news-releases/animoto-survey-93-of-brands-landed-a-new-customer-after-sharing-a-video-on-social-media-301424675.html>
- Andrade, C. (2019). The P Value and Statistical Significance: Misunderstandings, Explanations, Challenges, and Alternatives. Available online: https://journals.sagepub.com/doi/10.4103/IJPSYM.IJPSYM_193_19
- Bailenson, J.N., Yee, N., Brave, S., Merget, D. & Koslow, D. (2007). Virtual Interpersonal Touch: Expressing and Recognizing Emotions Through Haptic Devices. *Human-Computer Interaction*. Volume 22.
- Bansal, G., & Zahendi, F. (2015). Trust-Discount Tradeoff in Three Contexts: Frugality Moderating Privacy and Security Concerns. *Journal of Computer Information Systems*. Volume 55, Issue 1. Available online: <https://www.tandfonline.com/doi/abs/10.1080/08874417.2014.11645737>
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*. 51(6), 1173–1182. Available online: <https://doi.org/10.1037/0022-3514.51.6.1173>
- Batterton, K.A. & Hale, K.N. (2017). The Likert Scale What It Is and How To Use It. Available online: https://www.jstor.org/stable/26296382?casa_token=jyTzmRx5pLAAAAAA%3A67wrpGODsTjbIcg9nCmDc3AQd6uQDVQ11tb03OJ9rs17dZlDyxBytd5YNhGBpdm6tcigCugeOOnkxtg6zBnUmjBx9EbDo0uKQSzdCfWmzNfglCsGCt29
- Baumeister, R. (2002). Yielding to Temptation: Self-Control Failure, Impulsive Purchasing, and Consumer Behavior. *Journal of Consumer Research*. Volume 28, Issue 4. Pages 670–676. Available online: <https://doi.org/10.1086/338209>
- Beatty, S. E., & Ferrell, M. E. (1998). Impulse buying: Modeling its precursors. *Journal of Retailing*, 74(2), 169-191.

- Bischof, S., Boettger, T., & Rudolph, T. (2020). "Curated subscription commerce: A theoretical conceptualization". *Journal of Retailing and Consumer Services*.
- BOLLS, P., LANG, A., & POTTER, R. (2001). The Effects of Message Valence and Listener Arousal on Attention, Memory, and Facial Muscular Responses to Radio Advertisements. *Communication Research*. Volume 28, Issue 5.
- Borsboom, D., Mellenbergh, G. J., & van Heerden, J. (2004). The Concept of Validity. *Psychological Review*, 111(4), 1061–1071. Available online: <https://doi.org/10.1037/0033-295X.111.4.1061>
- Böttger, T., Rudolph, T., Evanschitzky, H., & Pfrang, T. (2017). Customer inspiration: Conceptualization, scale development, and validation. *Journal of Marketing*. 81(6), 116-131 Volume 54. Available online: <https://www.sciencedirect.com/science/article/abs/pii/S0969698918302777>
- Cañas-Bajo, J., Silvennoinen, J. (2017). Cross-Cultural Factors in Experiencing Online Video Contents in Product Marketing. *International Journal of Art, Culture and Design Technologies* Volume 6 • Issue 1.
- Chan, R. (1997). Demographic and attitudinal differences between active and inactive credit cardholders - the case of Hong Kong. *International Journal of Bank Marketing*. Available online: <https://www.emerald.com/insight/content/doi/10.1108/02652329710189375/full/html?skipTracking=true>
- Chen, H. (2011). The Impact Mechanism of Consumer-generated Comments of Shopping Sites on Consumer Trust. *Journal of computers*. VOL.6, NO.1.
- Cheung, G.W., Cooper-Thomas, H.D., Lau, R.S., Wang, L.C. (2023). Reporting reliability, convergent and discriminant validity with structural equation modeling: A review and best-practice recommendations. *Asia Pacific Journal of Management*. Available online: <https://doi.org/10.1007/s10490-023-09871-y>
- Crawford, G., & Melewar, T. C. (2003). The importance of impulse purchasing behaviour in the international airport environment. *Journal of Consumer Behaviour: An International Research Review*, 3(1), 85-98. Available online: <https://onlinelibrary.wiley.com/doi/abs/10.1002/cb.124>
- DAM, T. (2020). Influence of Brand Trust, Perceived Value on Brand Preference and Purchase Intention. *Journal of Asian Finance, Economics and Business*. Vol 7 No 10 (2020) 939–947. Available online: <https://koreascience.kr/article/JAKO202029062616803.pdf>

- Day, F. (2018). Quaring YouTube Comments and Creations: An Analysis of Black Web Series through the Politics of Production, Performance, and Pleasure. Available online: <https://deepblue.lib.umich.edu/handle/2027.42/145831>
- DeCoster, J. (1998). Overview of Factor Analysis. Available online: <http://www.stat-help.com/factor.pdf>
- Dholakia, U. M. (2000). Temptation and resistance: An integrated model of consumption impulse formation and enactment. *Psychology & Marketing*, 17(11), 955-982. Available online: [https://doi.org/10.1002/1520-6793\(200011\)17:11<955::AID-MAR3>3.0.CO;2-J](https://doi.org/10.1002/1520-6793(200011)17:11<955::AID-MAR3>3.0.CO;2-J)
- Donthu, N., & Garcia, A. (1999). The internet shopper. *Journal of Advertising Research*. Vol. 39, Issue 3. Available online: <https://go.gale.com/ps/i.do?id=GALE%7CA60072293&sid=googleScholar&v=2.1&it=r&linkaccess=abs&issn=00218499&p=AONE&sw=w&userGroupName=anon%7Eac4a8a7c>
- Donaldson, S., & Grant-Vallone, E. (2002). UNDERSTANDING SELF-REPORT BIAS IN ORGANIZATIONAL BEHAVIOR RESEARCH. *Journal of Business and Psychology*, Vol. 17, No. 2. Available online: <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=26736f3a7ee72f8ebdc1bf1a332e31fbf82cfa97>
- Eroglu, S., Machleit, K., & Davis, L. (2003). Empirical testing of a model of online store atmospherics and shopper responses. *Psychology & Marketing*. Volume 20, Issue 2 p. 139-150.
- Fatema, K., & Stephen, T. (2012). Online shopping environments in fashion shopping: An S-O-R based review. *The marketing review*. Volume 12, Number 2, Summer 2012, pp. 161-180(20). Available online: <https://www.ingentaconnect.com/content/westburn/tmr/2012/00000012/00000002/art00005>
- Floh, A., & Madlberger, M. (2013). The role of atmospheric cues in online impulse-buying behaviour. *Electronic Commerce Research and Applications*. Volume 12, Issue 6, Pages 425-439.
- Forgas, J. P. (2003). Affective influences on attitudes and judgments. *Handbook of affective sciences*. pp. 596–618. Available online: <https://psycnet.apa.org/record/2009-07773-030>
- Fornell, C., & Larcker, D.F.(1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*. 18(1), 39-50.

- Fung, R. & Lee, M. (1999). EC-Trust (Trust in Electronic Commerce): Exploring the Antecedent Factors. *AMCIS 1999 Proceedings*. 179. Available online: <https://aisel.aisnet.org/amcis1999/179>
- Gao, P., Jiang, H., Xie, Y., & Cheng, Y. (2021). The Triggering Mechanism of Short Video Customer Inspiration – Qualitative Analysis Based on the Repertory Grid Technique. *Front. Psychol.* Available online: [10.3389/fpsyg.2021.791567](https://doi.org/10.3389/fpsyg.2021.791567)
- Gao, L., & Bai, X. (2014). Online consumer behaviour and its relationship to website atmospheric induced flow: Insights into online travel agencies in China. *Journal of Retailing and Consumer Services*, 21(4), 653-665. Available online: <https://doi.org/10.1016/j.jretconser.2014.01.001>
- Gefen, D., Karahanna, E., & Straub, D. W. (2003). Inexperience and experience with online stores: The importance of TAM and trust. *IEEE Transactions on engineering management*, 50(3), 307-321.
- Giraud, A., Matic, I., Tenaillon, O., Clara, A., Radman, M., Fons, M., & Taddei, F. (2001). Costs and benefits of high mutation rates: adaptive evolution of bacteria in the mouse gut. *science*, 291(5513), 2606-2608.
- Ha, Y., & Lennon, S. J. (2010). Online visual merchandising (VMD) cues and consumer pleasure and arousal: Purchasing versus browsing situation. *Psychology & Marketing*, 27(2), 141-165. <https://doi.org/10.1002/mar.20324>
- Ha, Y., & Lennon, S. (2010). Effects of site design on consumer emotions: role of product involvement. *Journal of Research in Interactive Marketing*. Available online: https://www.emerald.com/insight/content/doi/10.1108/17505931011051641/full/html?cas_a_token=pS0KKCzCbfGAAAA:WxHurF5P3lp5hGcNUzfPJr6XiD2Nl4bzB2PItHgkJ3NiGMwmJ-wQE9fF8kVDZ4AKh1y6svrP5lai1ZviPxT5vu10ugBpWeNeuJG1uE2IHQW yLk4hgw
- Ho-Dac, N. N., Carson, S. J., & Moore, W. L. (2013). The Effects of Positive and Negative Online Customer Reviews: Do Brand Strength and Category Maturity Matter? *Journal of Marketing*. Available online: <https://doi.org/10.1509/jm.11.0011>
- HubSpot. (2022). State of inbound marketing trends. Available online: https://www.hubspot.com/hubfs/2022_State-of-Inbound-Marketing-Trends_V08122022.pdf
- Influencer MarketingHub. (2023). The state of influencer marketing 2023. Available online: https://influencermarketinghub.com/ebooks/Influencer_Marketing_Benchmark_Report_2023.pdf

- Jacoby, J. (2002). Stimulus-Organism-Response Reconsidered: An Evolutionary Step in Modeling (Consumer) Behavior. *Journal of Consumer Psychology*, 12(1), 51-57. Available online: https://doi.org/10.1207/S15327663JCP1201_05
- Johnson, M., Herrmann, A., Bauer, H. (1999). The Effects of Price Bundling on Consumer Evaluations of Product Offerings. Available online: <https://ecommons.cornell.edu/handle/1813/72058>
- Julie, B., Michael, L., & Dhruv, G. (1992). An experimental approach to making retail store environmental decisions. *Journal of Retailing*. Greenwich Vol. 68, Iss. 4, 445. Available online: <https://www.proquest.com/openview/fdedd4cd51576de751d8de4593493b57/1?pq-origsite=gscholar&cbl=41988>
- Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, 47(2), 263–291. Available online: <https://doi.org/10.2307/1914185>
- Kelman, H. C. 1958. “Compliance, Identification, and Internalization: Three Processes of Attitude Change,” *Journal of Conflict Resolution*. pp. 51-60.
- Kempf, D. S. (1999). Attitude formation from product trial: Distinct roles of cognition and affect for hedonic and functional products. *Psychology & Marketing*, 16(1), 35-50. Available online: [https://doi.org/10.1002/\(SICI\)1520-6793\(199901\)16:1<35::AID-MAR3>3.0.CO;2-U](https://doi.org/10.1002/(SICI)1520-6793(199901)16:1<35::AID-MAR3>3.0.CO;2-U)
- Kim, Y. J., & Han, J. (2014). Why smartphone advertising attracts customers: A model of Web advertising, flow, and personalization. *Computers in human behaviour*, 33, 256-269.
- Kollat, D., & Willett, R. (1969). Is Impulse Purchasing Really a Useful Concept for Marketing Decisions? *American marketing association*. Volume 33, Issue 1.
- Ladhari, R., Brun, I., & Morales, M. (2008). Determinants of dining satisfaction and post-dining behavioral intentions. *International Journal of Hospitality Management*, 27(4), 563-573. Available online: <https://doi.org/10.1016/j.ijhm.2007.07.025>
- Lee, J., & Chen-Yu. (2018). Effects of price discount on consumers’ perceptions of savings, quality, and value for apparel products: mediating effect of price discount affect. *Fashion and Textiles* 5, Article number: 13 (2018). Available online: https://link.springer.com/article/10.1186/s40691-018-0128-2?awc=26429_1685016613_b5f9182e11b4aca6ceccbc02c849959&utm_medium=affiliate&utm_source=awin&utm_campaign=CONR_BOOKS_ECOM_DE_PHSS_ALWYS_DEEPLINK&utm_content=textlink&utm_term=1018583

- Liu, Y., Li, H., Hu, F. (2013). Website attributes in urging online impulse purchase: An empirical investigation on consumer perceptions, *Decision Support Systems*. Volume 55, Issue 3, Pages 829-837.
- Li, Y., & Hayes, S. (2023). Comparing the Influences of Tourism Live Streaming and Short-Form Video for Young Chinese: A Qualitative Investigation. *Journal of China Tourism Research*, 1-25.
- Logan, K., Bright, L.F., Gangadharbatla, H. (2012). Facebook versus television: advertising value perceptions among females. Available online: <https://www-emerald-com.ludwig.lub.lu.se/insight/content/doi/10.1108/17505931211274651/full/pdf?title=facebook-versus-television-advertising-value-perceptions-among-females>
- Luangrath, A., Peck, J., Hedgcock, W., Xu, Y. (2022). Observing Product Touch: The Vicarious Haptic Effect in Digital Marketing and Virtual Reality. *Journal of Marketing Research*. Volume 59, Issue 2, April 2022, Pages 306-326
- Macinnis, D., Moorman, C., Jaworski, B. (1991). Enhancing and Measuring Consumers' Motivation, Opportunity, and Ability to Process Brand Information from Ads. *Journal of Marketing*. Available online: https://www.researchgate.net/publication/329054753_Enhancing_and_Measuring_Consumers%27_Motivation_Opportunity_and_Ability_to_Process_Brand_Information_from_Ads
- Maydeu-Olivares, A., & García-Forero, C. (2010). Goodness-of-Fit Testing. *International Encyclopedia of Education (Third Edition)*. pp. 190-196. Available online: <https://www.sciencedirect.com/science/article/abs/pii/B9780080448947013336>
- Mehta, A., Purvis, S. (2006). Reconsidering Recall and Emotion in Advertising. *Journal of Advertising Research*. 46 (1) 49-56; Available online: <https://www.journalofadvertisingresearch.com/content/46/1/49.short>
- Menon, S., Kahn, B. (2002). Cross-category effects of induced arousal and pleasure on the Internet shopping experience. *Journal of Retailing*. Volume 78, Issue 1.
- Messick, S. (1987), VALIDITY. *ETS Research Report Series*. Available online: <https://doi.org/10.1002/j.2330-8516.1987.tb00244.x>
- Mohajan, H. K. (2017). TWO CRITERIA FOR GOOD MEASUREMENTS IN RESEARCH: VALIDITY AND RELIABILITY. *Annals of Spiru Haret University Economic Series*, 17(4), 59-82. Available online: <https://doi.org/10.26458/1746>

- Möller, A., Boukes, M. (2023). Online social environments and their impact on video viewers: The effects of user comments on entertainment experiences and knowledge gain during political satire consumption. *New Media & Society*. Volume 25, Issue 5, May 2023, Pages 999-1022.
- Mummalaneni, V. (2005). An empirical investigation of Web site characteristics, consumer emotional states and online shopping behaviours. *Journal of Business Research*. Volume 58, Issue 4, Pages 526-532.
- Nassiri, N. (2008). Increasing trust through the use of 3d e-commerce environment. Available online:
https://dl.acm.org/doi/abs/10.1145/1363686.1364028?casa_token=Ve7YwWY4bwgAAA AA:BW8iziXKhycJbD4LtbXTpW6-v-13dG9ZqWLhfjXcG2ZnM1Oj_efY8KtPmr6ey09but14hrTCA.
- Novak, T. P., Hoffman, D. L., & Duhachek, A. (2003). The influence of goal-directed and experiential activities on online flow experiences. *Journal of consumer psychology*, 13(1-2), 3-16.
- Rangarajan, K., Davis, H., & Pucher, P. H. (2020). Systematic Review of Virtual Haptics in Surgical Simulation: A Valid Educational Tool? *Journal of Surgical Education*, 77(2), 337-347. Available online: <https://doi.org/10.1016/j.jsurg.2019.09.006>
- Rietveld, R., Dolen, W., Mazloom, M., Worrying, M. (2020). What You Feel, Is What You Like Influence of Message Appeals on Customer Engagement on Instagram. *Journal of Interactive Marketing*. Volume 49, February 2020, Pages 20-53
- Roberts, P., & Priest, H. (2006). Reliability and validity in research. *Nursing Standard*. 20(44), 41+. Available online:
<https://link.gale.com/apps/doc/A149022548/HRC A?u=anon~a84fa12f&sid=googleScholar&xid=f9772e17>
- Roseman, I., & Smith, C. (2001). Appraisal Theory: Overview, Assumptions, Varieties, Controversies. Available online:
https://books.google.se/books?hl=zh-CN&lr=&id=fmtnDAAAQBAJ&oi=fnd&pg=PA3&dq=Roseman+Smith,+2001&ots=srR4USefRt&sig=_Sqkz24zfMPugnJ0m0QcsnBNSA4&redir_esc=y#v=onepage&q=Roseman%20Smith%2C%202001&f=false
- SANDVINE.(2023). The global internet phenomena report. Available online:
https://www.sandvine.com/hubfs/Sandvine_Redesign_2019/Downloads/2023/reports/Sandvine%20GIPR%202023.pdf

- Schuch, S., Koch, I. Mood states influence cognitive control: the case of conflict adaptation. *Psychological Research* 79, 759–772 (2015). Available online: <https://doi.org/10.1007/s00426-014-0602-4>
- Schober, P., &Boer, C. (2018). Correlation Coefficients: Appropriate Use and Interpretation. Available online: https://www.researchgate.net/publication/323388613_Correlation_Coefficients_Appropriate_Use_and_Interpretation
- Sherman, E., Mathur, A., Smith, R. (1998). Store environment and consumer purchase behaviour: Mediating role of consumer emotions. *Psychology & Marketing*. Volume 14, Issue 4 p. 361-378
- Shrestha, N. (2021). Factor Analysis as a Tool for Survey Analysis. *American Journal of Applied Mathematics and Statistics*. Vol. 9, No. 1, 4-11. Available online: <http://pubs.sciepub.com/ajams/9/1/2>
- Statista. (2022). Most common online impulse purchases worldwide as of February 2022, by gender. Available online: <https://www.statista.com/statistics/1308151/online-impulse-purchases-worldwide-gender/>
- Stern, H. (1962). The significance of impulse buying today. *Journal of Marketing*. Volume 26, issue 2. Available online: <https://journals.sagepub.com/doi/abs/10.1177/002224296202600212?journalCode=jmxa>
- Tang, T., Tang, J., Hong, J., Yu, L., Ren, P., & Wu, Y. (2020). Design guidelines for augmenting short-form videos using animated data visualizations. *Journal of Visualization*, 23, 707-720.
- Tellis, G., MacInnis, D., Tirunillai, S., Zhang, Y. (2019). What Drives Virality (Sharing) of Online Digital Content? The Critical Role of Information, Emotion, and Brand Prominence. *Journal of Marketing*. Available online: https://journals.sagepub.com/doi/abs/10.1177/0022242919841034?casa_token=OFRa7Ccg4YwAAAAA%3AnHqUw2S_b5NDIx5pE7Qdc3lsbJ5DiViLBNk-mGSWv6uiCeY25eV1IhZ0VFf7cvOxu93E5nbca6I&journalCode=jmxa
- Tsai, M. C. (2020). Storytelling advertising investment profits in marketing: From the perspective of consumers' purchase intention. *Mathematics*, 8(10), 1704.
- Utz, S., Matzat, U., & Snijders, C. (2009). On-Line Reputation Systems: The Effects of Feedback Comments and Reactions on Building and Rebuilding Trust in On-Line Auctions. *International Journal of Electronic Commerce*. Vol. 13, No. 3. pp. 95-118 (24 pages)

- Wang, Y. (2020) Humour and camera view on mobile short-form video apps influence user experience and technology-adoption intent, an example of TikTok (DouYin), *Computers in Human Behavior*, Available online: <https://www.sciencedirect.com/science/article/abs/pii/S0747563220301266>
- Watson, D., & Tellegen, A. (1985). Toward a consensual structure of mood. *Psychological Bulletin*, 98(2), 219–235. Available online: <https://doi.org/10.1037/0033-2909.98.2.219>
- Wang, J., & Chang, C. (2013). How online social ties and product-related risks influence purchase intentions: A Facebook experiment. *Electronic Commerce Research and Applications*. Volume 12, Issue 5. Pages 337-346.
- Wu, Y., Chen, H., & Wang, H. (2019) The Influence of Product Diversity on Consumers' Impulsive Purchase in Online Shopping Environment. *American Journal of Industrial and Business Management*, 9, 680-698. Available online: 10.4236/ajibm.2019.93046.
- Wulf, K., Schillewaert, N., & Muylle, S. (2006). The role of pleasure in web site success. *Information and Management*. Volume 43, Issue 4. Pages 434-446. Available online: https://www.sciencedirect.com/science/article/abs/pii/S0378720605000777?casa_token=viZYM8W3Ap0AAAAA:cZ3rcmCGorpSqTNu1Q6HSWCsmEYzGQdfDGQUWfrls8Db49ZudFcMFUJByjgwHIJppH5_uOELqbg
- Wyzowl (2018). The state of video marketing 2018. Available online: <https://wyzowl.s3.eu-west-2.amazonaws.com/pdfs/Wyzowl-Video-Survey-2018s.pdf>
- Xia, Y. & Yang, Y. (2019). RMSEA, CFI, and TLI in structural equation modeling with ordered categorical data: The story they tell depends on the estimation methods. *Behavior Research Methods*. 51, 409–428. Available online: <https://doi.org/10.3758/s13428-018-1055-2>
- Xie, X., Tsai, N., Xu, S., Zhang, B. (2018). Does customer co-creation value lead to electronic word-of-mouth? An empirical study on the short-video platform industry, *The Social Science Journal*, Volume 56, Issue 3, pp. 401-416.
- Yuen, M. (2023). TikTok users worldwide (2020-2025). Available online: <https://www.insiderintelligence.com/charts/global-tiktok-user-stats/>
- Zhang, H., Lu, Y., Gupta, S., & Zhao, L. (2014). What motivates customers to participate in social commerce? The impact of technological environments and virtual customer experiences. *Information & Management*, 51(8), 1017-1030. Available online: <https://doi.org/10.1016/j.im.2014.07.005>

Appendix

Appendix A. Questionnaire with image (informativeness)



Informativeness

Q1. I think short video ads on social media are a good source of product information, providing relevant product information.

Q2. I think short video ads on social media will provide all the important information about products.

Appendix B. Questionnaire with image (comments)



Comments

-  [Redacted] 14h 
You look so beautiful! ❤️❤️❤️ These are beautiful on you @moodylenses_official
1 like Reply
-  [Redacted] 0h 
You make these contact lenses look hot!!!
🔥🔥🔥
Reply
-  [Redacted] 0h 
Love those! ❤️❤️❤️
Reply
-  [Redacted] 
What a Barbie 😍😍 how cool are these 🙌
Reply

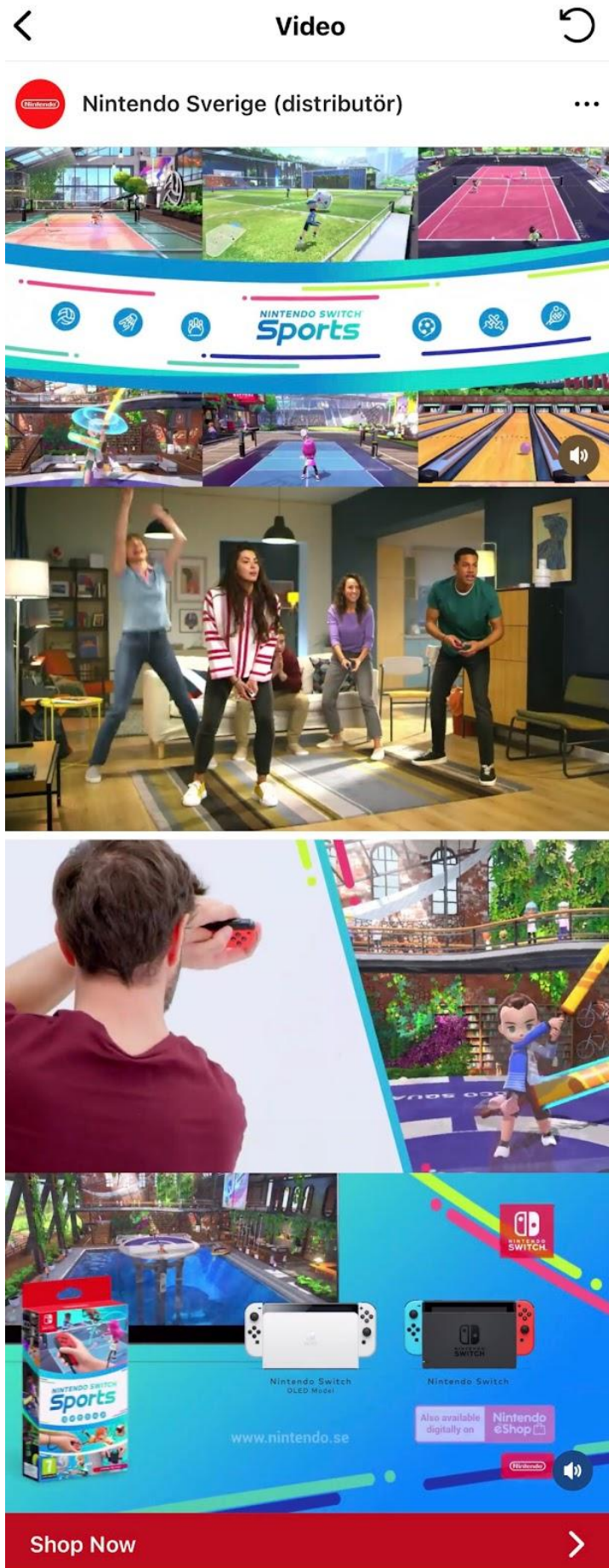
Comments under the short video

Q1. I think comments under the short video will affect my perception of the products' quality directly.

Q2. I think positive comments under the short video ads will trigger my pleasure in the product.

Q3. I think positive comments under the short video will affect my sense of trust

Appendix C. Questionnaire with image (virtual haptics)



Virtual haptics

Q1. I think short video ads with virtual haptics can catch my eyes and bring me into the short video scenario more efficiently

Q2. When I'm watching a short video ad with virtual haptics, I can feel the product's relevance properties deeper.

Appendix D. Questionnaire with image (price discount)

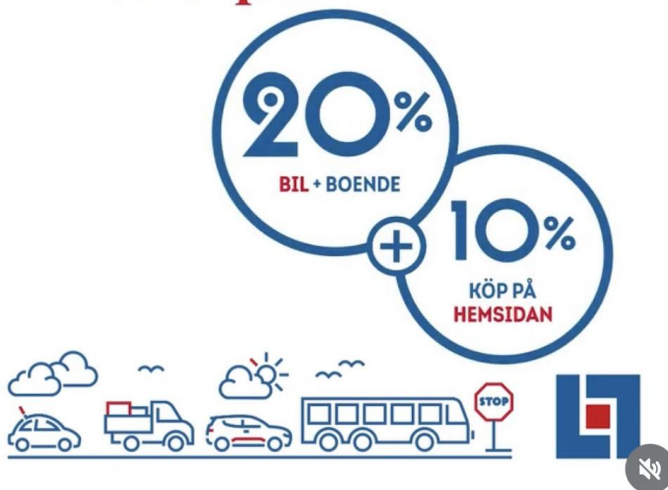


Länsförsäkringar Skåne
Sponsored



Price discount

Skånes mest efterfrågade
bilförsäkring – nu med
extra bra pris



Learn More



4,795 views

Take care! Right now you get up to 30% off when you buy your car insurance on our website.

Q1. I think the price discount or promotional offers in the short video will attract my attention.

Q2. I think the discounted price or promotional offer in a short video will stimulate my pleasure with this product.

Appendix E. Other questions

Pleasure

Q1. I usually will focus on the content if I open a short video.

Q2. I will feel satisfied when I see the video message(include positive comments)

Q3. If I make an impulsive purchase based on a short video ad, it brings me a sense of pleasure.

Trust

Q1. I trust the short video content of the product because it is produced and reviewed by the official team and platform.

Q2. I believe that consumer reviews can show the real experience of using the product.

Q3. I think the using scenario of the product in the short video enhanced my trust in the product features.

Impulse purchase behaviour

Q1. Short video ads will lead me to engage in unplanned, impulsive purchasing behaviour.

Q2. Short video ads will make me unable to control my desire to purchase, leading to buying behaviour.