

# **What Makes Brand TikTok Videos Engaging? An Elaboration Likelihood Model Perspective**

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## **Abstract**

Short-form videos in social media are growing in popularity and becoming a promising channel for marketing. This study explores consumer engagement in brand short-form videos by investigating the effect of five non-content characteristics, i.e., screen mode, caption, title length, human voice, and music. Drawing from the Elaboration Likelihood Model, this study examined 4,027 TikTok (Douyin) videos from 54 brands across 13 industries. The findings suggested that screen mode, captions, and video title length significantly affect consumer engagement by influencing the central information processing route, and music and narration positively affect consumer engagement by functioning on the peripheral information processing route. This study contributes to the literature on social media marketing and consumer engagement by unveiling the influencers for consumer engagement in the brand short-form video context. More importantly, this study provides practical tactics for brands to create compelling videos to attract engagement and achieve marketing goals.

### **Keywords:**

Brand short-form video, TikTok (Douyin), consumer engagement, Elaboration Likelihood Model

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## **Chapter 1 Introduction**

Social media has long been a mainstream channel for brands to promote products and services, launch marketing campaigns, achieve consumer communication, and foster brand-consumer relationships. An industry survey has revealed that over 75% of companies primarily leverage social media for branding campaigns. Over half of these activities aim to retain current customers and gain new customers (Deloitte, 2020). In recent years, as a new media type, short-form video in social media has gained increasing attention from marketers and advertisers in the current social media marketing practice. With the arrival of the 5G era and improvements in mobile technology (Yuan, 2020; Zhou et al., 2021), browsing short-form videos on mobile devices (e.g., smartphones) has become one of the most common online activities worldwide (Ceci, 2022a). In 2021, more than 66% of the global data volume came from video apps (Ceci, 2022b). Short-form video Apps such as TikTok/Douyin are rocketing in popularity. For example, TikTok was the most downloaded app and the highest-grossing app in 2020 and 2021, with a cumulative 3301 million downloads by Q1 2022. (Curry, 2022; Iqbal, 2022). The new trend of mobile media usage and the fast-growing favor of short-form videos have urged brand managers to reevaluate their social media marketing strategies. Companies from various sectors have gradually embraced short-form videos in their marketing plan and have increasingly devoted their marketing budgets to these emerging platforms. According to a recent report, worldwide video advertising spending is expected to reach US\$180.40bn by the end of 2022 and keep increasing to US\$318.80bn by 2027, among which US\$250.10bn will be generated through mobile (Statista, 2022a).

However, despite the increasing adoption of short-form videos in social media branding activities, brand marketers still face problems in effectively engaging consumers in these new media communications. According to related industry reports, the main challenges that many marketers face during short-form video marketing are creating a high-quality



view experience, designing creative and original content, and avoiding being too commercial (Sohu, 2022). Without knowing the practical strategies, many brands struggle to operate these new social media accounts successfully despite devoting a great amount of budget, time, and effort, resulting in a low Return On Investment (ROI) (Tan, 2021). Hence, understanding how to approach popular short-form videos that can maximize consumer engagement across this new social media marketing channel has become one of the top priorities for brands.

In the academic area, literature on this topic is also scant. Firstly, compared to the extensive research studying consumer engagement on textual or image social media brand posts (Davis, 2019; Gavilanes et al., 2018; Rietveld, 2020; Swani & Milne, 2017), few studies target social media brand videos or research on short-form video platforms. Although some literature noticed the different engaging effects of various media types and found that the use of video positively impacts consumer engagement by increasing media richness and vividness (De Vries et al., 2012; Luarn et al., 2015; Tafesse, 2015), it remains unclear what characteristics in videos are effective. Secondly, extant research on video-based platforms primarily investigates user-generated content (UGC), such as the video posted by influencers (Chen et al., 2019; Ge et al., 2021; Hung et al., 2022; Munaro et al., 2021; Yang & Ha, 2021; Zhou et al., 2021). Little attention has been paid to brand-generated content. Thirdly, the limited literature addressing brand video popularity mainly from the perspective of user intention (Meng & Leung, 2021; Omar & Dequan, 2020; Yang & Ha, 2021) or concentrates on content and subjective features in videos, such as emotion, drama, storyline, and creativeness (Ashley & Tuten, 2015; Dessart & Pitardi, 2019; Karpinska-Krakowiak & Eisend, 2020; Kujur & Singh, 2018). Few studies try to research the drivers and barriers of consumer engagement in brand videos regarding non-content video characteristics, which are the most basic and must-concerned objective elements during video creation. More importantly, one distinct characteristic of short-form videos is that most of them are played on mobile devices like smartphones (Xiao et al., 2019). Recent

surveys show that smartphones are the most primarily used devices for watching digital videos, far surpassing desktop computers, laptops, and smart TVs (Ceci, 2022a; Ceci, 2022b). About 63% of respondents preferred to watch online videos with smartphones in the United States (Kunst, 2022). In China, the short-form video viewing rate on mobile devices has rocketed to 82.3% in 2022 (Thomala, 2022). Such a viewing context and habits inevitably strengthen the effects of some video characteristics, which bring a unique viewing experience different from traditional videos on the web or TV. As such, most current research studying online videos (e.g., YouTube videos) may not fully answer the research questions specifically targeting short-form videos. Hence, brands lack research guidance on how to facilitate consumer engagement in their attempt to launch marketing campaigns across short-form video platforms.

In response to this knowledge gap and business need, this study explores the factors that potentially influence consumer engagement toward brand short-form videos. In particular, we focus on the effect of non-content characteristics of brand short-form videos. Much research has shown that non-content characteristics are as important as content characteristics in consumer engagement on brand posts (Cortez et al., 2020; Deng et al., 2021; Juntunen et al., 2020; McShane et al., 2019). Appropriate use of these non-content cues can directly influence consumers' cognitive reception and emotional involvement toward the brand post content (Cortez et al., 2020; Juntunen et al., 2020; McShane et al., 2019). Moreover, compared to content creation, which emphasizes diversity and brand-content fit, the tactics for non-content characteristics design is more general and easier to implement. Well-design of non-content characteristics may be a shortcut for enhancing consumer engagement. Therefore, the current study aims to address this gap by investigating how non-content characteristics of brand short-form videos affect consumer engagement.

Drawing from the Elaboration Likelihood Model (ELM) (Petty & Cacioppo, 1986), the

current study investigates the effect of short-form videos' non-content characteristics on consumer engagement by examining their impact on central and peripheral information processing routes. The ELM explains consumers' attitudes forming and online decisions (Le et al., 2020) from rational and emotional perspectives, thus providing an appropriate theoretical foundation for systematically studying brand-consumer communication in social media. By investigating 4,027 brand TikTok (Douyin) videos from 54 brands in 13 industries, this study empirically studies five video characteristics, including screen mode (vertical vs. horizontal screen), caption (use of captions in the brand video), video title length, the use of human voice and music, that potentially affect consumer engagement through either the central or the peripheral information-processing route. The findings highlight that 1) brand video presented in vertical screen mode has higher engagement than in horizontal screen mode; 2) caption and title length negatively affect consumer engagement; 3) music has a positive effect on consumer engagement, while the use of human voice partially affects consumer engagement. This study contributes to brand posts and social media engagement literature by extending the understanding of consumer engagement into the context of brand short-form videos. In practice, this study offers many easy-to-implement tactics for brands regarding how to design compelling videos that can help facilitate engagement and achieve marketing goals.

The remainder of the current study proceeds as follows. Chapter 2 first discusses the importance of consumer engagement in social media marketing, followed by an overview of current literature on consumer engagement. Then the research gap is identified, inducing the research goal. Chapter 3 introduces the theoretical foundation and hypotheses development. Chapter 4 describes the methodology, and the empirical results are then presented in Chapter 5. Finally, Chapter 6 provides an in-depth discussion of both theoretical and practical implications, while the limitations of the present study and opportunities for future research are also concluded.

## **Chapter 2 Literature Review**

### **2.1 Consumer Engagement in Social Media Marketing**

Social media provides businesses with an effective platform to interact with consumers and spread brand and product information. Content strategy as an essential component of social media marketing has been implemented widely in practices. Among these marketing activities, enhancing consumer engagement is deemed a vital focus. According to Hollebeek et al. (2014, p. 154), consumer engagement refers to "*a consumer's positively valenced brand-related cognitive, emotional and behavioural activity during or related to focal consumer/brand interactions.*" In social media marketing, a high consumer engagement rate usually indicates the success of online branding campaigns (Schreiner & Riedl, 2019). For the direct effect, consumers' engagement behaviors popularize the brand-generated content or even make it viral, greatly extending the brand audience network (Nery et al., 2021) quickly and at a relatively low cost. Furthermore, researchers have found that engaging consumers toward brand posts (e.g., liking, sharing, and commenting) could expedite purchase decisions and facilitate sales (De Vries, 2012; Erkan & Evans, 2016; Rapp et al., 2013; Swani et al., 2017). In the long term, consumer engagement has been shown to be positively related to brand trust, awareness, and loyalty establishment (Akpınar & Berger, 2017; Habibi et al., 2014; Swani et al., 2014; Zhang et al., 2018), which can turn into considerable brand equity and monetary value (Kim & Ko, 2012). Hence, given the importance of consumer engagement on the overall marketing ROI (Godes & Mayzlin, 2009; Kumar & Mirchandani, 2012) and long-term brand relationships (Jahn & Kunz, 2012), brands must create compelling content to engage consumers on social media better.

### **2.2 Consumer Engagement on Social Media Brand Posts**

With the prevalence and promise of the content strategy used in social media marketing, consumer engagement toward brand content on social media has always been a researched

hotspot in academics. In recent years, wide-ranging research on brand post popularity has explored various potential drivers for consumer engagement from different perspectives. An overview of the related research is presented in Table 1.

**Table 1. Research on Consumer Engagement with Brand Posts on Social Media**

<b>Source</b>	<b>Posts characteristics</b>	<b>Engagement</b>	<b>Platform</b>	<b>Post Format</b>	<b>Method*</b>
Argyris et al. (2020)	visual features	engagement score	Instagram	image	Field Study
Araujo et al., (2015)	content type media type	Retweet (shares)	Twitter	text	Field Study
Ashley & Tuten (2015)	content type (message appeal)	engagement score	Twitter, Facebook, MySpace	text, image, video	Field Study
Antoniadis et al. (2019)	media type linguistic features	likes, shares, comments, emotional reaction	Facebook	post contains pure text or with image, video	Field Study
Araujo & Kollat (2018)	content type	likes, retweets(shares)	Twitter	text	Field Study
Akpinar & Berger (2017)	content type (message appeal)	shares (intention)	YouTube, Facebook, Twitter	video	Field Study Experiment
Barreto & Ramalho (2019)	content type; media type,	likes, comments, shares	Facebook	post contains pure text or with image, video	Field Study
Cruz et al. (2017)	linguistic features	engagement score	Facebook	text	Field Study Experiment
Cvijikj & Michahelles (2013)	media type, content type	engagement score	Facebook	post contains pure text or with image, video	Field Study

<b>Source</b>	<b>Posts characteristics</b>	<b>Engagement</b>	<b>Platform</b>	<b>Post Format</b>	<b>Method*</b>
Coursaris et al. (2016)	content type (message appeal) media type;	engagement score	Facebook	post contains pure text or with image, video	Field Study
Chen et al. (2015)	linguistic features visual features	likes, comments, shares	Facebook	text, image	Field Study
Chu et al. (2020)	media type linguistic features	likes, comments, shares	Sina Weibo	post contains pure text or with image, video	Field Study
Chu et al. (2020)	content type (message appeal)	likes	Sina Weibo	text	Field Study
Colliander & Marder (2018)	visual features	engagement intention	Instagram	image	Experiment
Chae (2020)	content type (message appeal) linguistic features	likes, comments, shares	Facebook, Twitter	text	Field Study
Davis et al. (2019)	linguistic features content type	likes, retweets(shares)	Twitter	text	Field Study
Dessart & Pitardi (2019)	content type	cognitive, emotional, behavioral engagement	YouTube	video	Netnography
Demmers et al. (2020)	content type media type	likes, comments shares	Facebook	post contains pure text or with image, video	Field Study

<b>Source</b>	<b>Posts characteristics</b>	<b>Engagement</b>	<b>Platform</b>	<b>Post Format</b>	<b>Method*</b>
Doyle et al. (2022)	content type visual features	likes, comments	Instagram	text, image	Field Study
De Vries et al. (2012)	media type; content type	likes, comments	Facebook	post contains pure text or with image, video	Field Study
Gavilanes et al. (2018)	content type	click, likes, comments, shares	Facebook	text	Field Study
Gutiérrez-Cillán et al. (2017)	content type; media type,	engagement intention	Facebook	text, image	Survey
Huertas & Marine-Roig (2016)	content type	engagement score	Facebook	text	Field Study
Hartmann et al. (2021)	content type visual features	likes, comments, purchase intention	Instagram, Twitter	image	Field Study
Kwok & Yu (2013)	content type; media type,	likes, comments	Facebook	post contains pure text or with image, video	Field Study
Kusumasondjaja (2019)	visual features media type	likes, comments	Instagram	post contains static images or audio- visual content	Field Study
Kostyk & Huhmann (2021)	visual features	likes, comments	Instagram	image	Field Study Experiment
Kwok & Yu (2016)	content type	likes, comments	Facebook	text	Field Study
Karpinska-Krakowiak & Modlinski (2020)	linguistic features	likes, comments, shares	Facebook	text	Field Study

<b>Source</b>	<b>Posts characteristics</b>	<b>Engagement</b>	<b>Platform</b>	<b>Post Format</b>	<b>Method*</b>
Kim et al. (2015)	media type content type	likes, comments shares	Facebook	post contains pure text or with image, video	Field Study
Kim et al. (2019)	content type; media type, linguistic features	likes, comments	Facebook	post contains pure text or with image, video	Field Study
Kujur & Singh (2018)	content type (message appeal)	engagement score	YouTube	video	Field Study
Lee et al. (2018)	content type; media type, linguistic features	likes, comments, shares, click-throughs	Facebook	text	Field Study
Luarn et al. (2015)	content type; media type,	likes, comments shares	Facebook	post contains pure text or with image, video	Field Study
Labrecque et al. (2020)	linguistic features	likes, comments, shares	Facebook	text	Field Study
McShane et al. (2021)	linguistic features	likes & retweets(shares)	Twitter	text	Field Study Experiment
Mulier et al. (2021)	video features	clicks, likes, comments, shares	Facebook	video	Experiment
Pancer et al. (2019)	linguistic features	likes, comments shares	Facebook	text	Field Study Experiment
Pezzuti et al. (2021)	linguistic features	likes, comments, shares/retweets	Facebook, Twitter	text	Field Study Experiment



<b>Source</b>	<b>Posts characteristics</b>	<b>Engagement</b>	<b>Platform</b>	<b>Post Format</b>	<b>Method*</b>
Sabate et al. (2014)	media type	likes, comments	Facebook	post contains pure text or with image, video	Field Study
Schultz (2017)	media type; content type	likes, comments shares	Facebook	post contains pure text or with image, video	Field Study
Tafesse (2015)	content type; media type,	likes, shares	Facebook	post contains pure text or with image, video	Field Study
Tafesse (2016)	media type content type	likes, shares	Facebook	post contains pure text or with image, video	Field Study
Tafesse & Wien (2018)	content type	likes, shares	Facebook	text	Field Study
Tellis et al.(2019)	content type (message appeal)	shares	YouTube	video	Field Study
Rietveld et al. (2020)	content type (message appeal)	likes, comments shares	Instagram	image	Field Study
Viglia et al. (2018)	content type (message appeal)	likes, comments	Facebook	text	Field Study
Vargo (2016)	content type	likes, retweets(shares)	Twitter	text	Field Study

<b>Source</b>	<b>Posts characteristics</b>	<b>Engagement</b>	<b>Platform</b>	<b>Post Format</b>	<b>Method*</b>
Wagner et al. (2017)	content type (message appeal)	likes, comments shares	Facebook	text	Field Study
Yousaf et al. (2020)	content type; media type,	likes, comments, shares	Facebook	post contains pure text or with image, video	Field Study

\*Note: Field Study refers to research that uses web crawling data collected on social media; Experiment includes traditional lab, online, or field experiments; Survey refers to research that acquires data using paper or online questionnaires.

As shown in Table 1, most research investigated consumer engagement from a behavioral perspective, which was also in line with the focus of marketing practitioners. In these studies, consumer engagement was operationalized using the most common social media metrics, such as the number of likes, comments and shares that directly reflected brand posts' popularity (Vander Schee et al., 2020). Compared to the convergence regarding the operationalization of consumer engagement, researchers have uncovered various characteristics of brand posts that influence consumer engagement. A large proportion of research focused on the post content, either studying content categories (e.g., information, entertainment), post themes (e.g., CSR and promotion) or specific content mentioned (e.g., brand-related content). For example, Cvijikj and Michahelles (2013) categorized posts into three content types (i.e., information, entertainment, and remuneration) and suggested that entertaining content has the largest effect on increasing consumer engagement. Likewise, Gavilanes et al. (2018) studied seven post topics, e.g., product, sweepstakes, and organization, and found various effects of different post topics. Besides the post content, a stream of previous research addressed brand posts' media type, examining the effect of media richness and interactivity level. This research provided strong evidence that compared to text-only posts, posts with high vividness and interactivity levels, such as

those containing images, videos, links, and hashtags, led to greater consumer engagement (Barreto & Ramalho, 2019; Chu et al., 2020; Kim et al., 2019; Kusumasondjaja, 2019). Another research stream dug into the linguistic features of textual brand posts, such as message length, readability, certainty words, personal pronouns, and emojis usage. For example, Cruz et al. (2017) showed that using second-person pronouns increase consumer engagement and brand attitude. Both Pancer et al. (2019) and Davis et al. (2019) found that readability positively influences consumer engagement. Similarly, increasing research has started considering the visual features of pictorial brand posts since using images/photos in online branding became popular. In studying the image brand posts, Kostyk and Huhmann (2021) suggested that symmetry and high image contrast increased likes and comments. Kusumasondjaja (2019) found that image posts with expressive aesthetics stimulated more consumer engagement than those with classical aesthetics.

However, the current literature on brand post popularity has mostly targeted textual or statics visual brand posts. While there are ample strategies for designing text or image brand posts to enhance consumer engagement, effective guidance regarding video brand posts has yet to gain sufficient attention. Of the fifty papers reviewed (see Table 1), thirty-seven primarily studied textual brand posts, eight worked on image brand posts, and only five specifically investigated video brand content. Moreover, all these five papers examined brand online video ads instead of short-form video posts. Regarding the research context, Facebook was the most selected platform, followed by Twitter and Instagram, while no research was carried out on short-form video platforms such as TikTok or Douyin. Although much research considered the presence of video when examining the effect of media richness, few looked further into the characteristics of brands' videos per se. Brand short-form videos are a kind of visual-audio media type. Compared to brand posts in text or image-only format, it can activate multiple senses and bring new engagement experiences since it stimulates not only viewing but also the hearing experience (Coyle &

Thorson, 2001; De Vries, 2012). Given the distinctly different characteristics regarding the media types and their growing popularity, it is undoubtedly necessary and worthy to conduct specific research aiming at brand short-form videos on social media.

Among the limited research on brand video popularity, the focus has remained on content features. For example, Akpınar and Berger (2017) and Tellis et al. (2019) investigated the influencers on video sharing by studying the effect of different video content types (e.g., information-focused, emotion-focused, and commercial). Likewise, Kujur and Singh (2018) focused on the effect of emotional appeals on consumer engagement based on a content analysis of 150 video advertisements. Meanwhile, Dessart and Pitardi (2019) paid attention to the effect of the storytelling content element on multidimensional engagement with brand videos. Although recently, some research started to investigate short-form videos' non-content characteristics, such as screen mode (Mulier et al., 2021), camera view (Wang, 2020), and language elements (Munaro et al., 2021). These works were either based on individual user-generated videos or lacked field data support. Unlike much research on linguistic and visual features, which correspond to text and images in brand posts, empirical evidence regarding the effect of brand short-form videos' non-content characteristics on consumer engagement is currently scant. However, the non-content characteristics are equally important because most of the engagement experience is brought by the non-content elements embedded in the video, such as screen mode, caption, narration, and background music. These non-information settings can offer rational or emotional cues to consumers when they are processing the video content, consequently influencing consumer engagement (Juntunen et al., 2020; McShane et al., 2019).

Therefore, the current study will investigate how non-content characteristics of brand short-form videos affect consumer engagement on social media. Considering that these non-content features potentially affect cognitive and emotional responses simultaneously, this study applies the Elaboration Likelihood Model (Petty & Cacioppo, 1986) to examine

the effectiveness of these characteristics by considering their impact on the rational and emotional appeals of communication through information processing routes. Next, we detail the theoretical foundation, followed by the research model and hypothesis development.

## **Chapter 3 Theoretical Foundation and Hypotheses Development**

### **3.1 The Elaboration Likelihood Model**

The Elaboration Likelihood Model (ELM) (Petty & Cacioppo, 1986) is a dual-process persuasion model of attitude formation and decision-making (Angst & Agarwal, 2009), which outlines two primary information processing routes, namely the central route and peripheral route. Central route processing is based on a thoughtful consideration of information-centric arguments, while peripheral route processing requires less cognitive effort to assess the information and is based on affective associations or simple inferences in the persuasion context (Petty & Cacioppo, 1986; Yang et al., 2022). According to the ELM, in the high elaboration likelihood states, where both individuals' motivation and ability to process a message are high, people follow the central route of the information process and thus be more likely persuaded by the rational appeals of the message (Petty & Cacioppo, 1986). In this case, people will scrutinize the information and focus on the argument quality, content characteristics, message relevance, and other issue-related arguments before forming a judgment (Bhattacharjee & Sanford, 2006; Grigaliunaite & Pileliene, 2016; Petty & Cacioppo, 1986). By contrast, while in low elaboration likelihood states (i.e., lacking the motivation or ability to thoughtful processing), people engage in the peripheral route of information processing and thus intend to be motivated by emotional appeals or other simple inferences of the message (Petty & Cacioppo, 1986). In this situation, people devote less to issue-relevant thinking and make quick decisions depending on simple criteria and cues such as emotion, heuristics, social cues, rules of thumb, or other non-core message elements (Angst & Agarwal, 2009; Schulze et al., 2014; Tam & Ho, 2005).

The ELM postulates that following which information processing route depends on people's cognitive involvement levels, which are determined by their motivation and ability (Petty et al., 1983). As such, people may respond to the same message differently

via two different information processing routes. Even for the same person, processing an identical message may result in different outcomes if the elaboration likelihood fluctuates (Bhattacharjee & Sanford, 2006; Teng et al., 2015). Furthermore, although the dichotomy distinguishes the two routes, research has shown that the two information-processing routes are not mutually exclusive. In many cases, the central and peripheral information processing routes may act simultaneously, and people usually rely on both routes at the same time during attitude formation (Petty et al., 1987). Given the dynamic nature of the ELM, this model has been frequently applied in research on mass communication, such as in advertising and social media marketing, where people hold different motivations and react situationally toward the same information. Rather than emphasizing the identification of a specific processing route, the ELM maps out the potential engaging variables for marketers (Teng et al., 2015), providing a comprehensive framework for understanding consumer attitudes and behavior diversity.

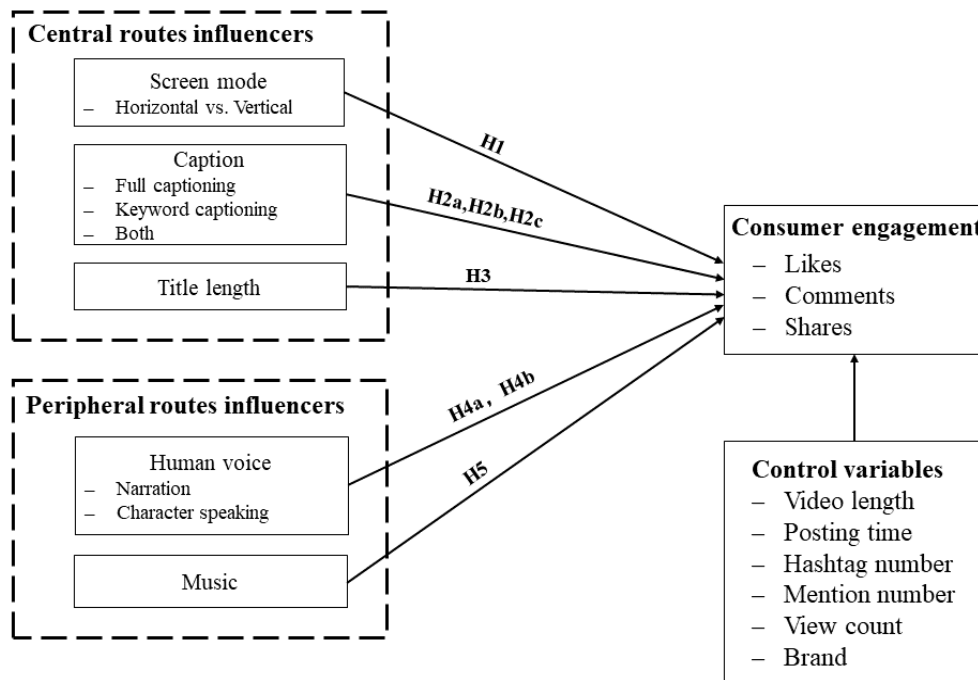
Of the research on social media marketing using the ELM, some took the ELM as a whole explanatory framework to understand the influencers on consumer engagement from a comprehensive perspective by incorporating two information-processing routes (Hughes et al., 2019; Schulze et al., 2014; Chang et al., 2015; Munaro et al., 2021). Some focused on rational and emotional cues embedded in the message, which belong to the central and peripheral routes accordingly. They categorized the researched factors into two groups based on their cognitive or affective attributes to study their direct impact on consumers' responses. For example, Chun and Lee (2016) divided social networking sites into two content types (i.e., utilitarian vs. hedonic) and examined their effect on individuals' WOM intentions within those with different involvement levels. Shi et al. (2018) identified the determinants of individual dissemination behavior on SNS (Social Networking Sites) by integrating SNS characteristics into the two types of cues, where topic relevance and information richness belonged to the rational cues, and source trustworthiness and source attractiveness belonged to the emotional cues. Others focused on the factors which affect

the effectiveness of two information-processing routes rather than looking into their direct effect on consumer engagement. For instance, Le et al. (2020) indicated that active WOM-seeking behavior, message quality, and source characteristics could stimulate both the central and peripheral information-processing routes. Deng et al. (2021) suggested that the linguistic features of the brand post could enhance brand engagement by facilitating either central or peripheral information-processing routes.

Drawing on the ELM, the current study attempts to examine the effect of non-content characteristics of brand short-form videos on consumer engagement. In particular, the current study focuses on how these non-content characteristics potentially influence the effectiveness of central and peripheral route processing, which in turn affects consumer engagement behaviors. The ELM applies to the current study for many reasons. First, the ELM is directly related to information processing and its impact on attitude formation and decision-making (Bhattacharjee & Sanford, 2006). Therefore, applying this model to study consumer engagement with brand posts on social media is appropriate because consumers watching brand short-form videos and generating various responses is a typical persuasive information processing and decision-making process. Secondly, the ELM postulates varied responses toward the same message across individuals and offers a comprehensive explanation by simultaneously integrating the outcomes of the central and peripheral information process routes. Consumers' responses toward brand posts are highly diverse. For example, when watching brand short-form videos, some consumers seek helpful information, while others are mainly for entertainment, leading to different engagement behaviors. Hence, applying the ELM in such a context accounting for various consumer attitudes and behaviors, is sensible. Thirdly, with an emphasis on rational appeals on the central route and emotional appeals on the peripheral route, the ELM provides a relatively wide lens to understand the effects of various characteristics of brand short-form videos on consumer engagement. Based on the ELM, we propose that brand short-form video characteristics that assist the central or peripheral route processing will increase consumer



engagement. In contrast, those that hinder the processing will decrease consumer engagement. The conceptual model is presented in Figure 1 and lists the five investigated brand short-form video characteristics: screen mode, caption, video title length, human voice and music. The five variables were selected for the following reasons. First, all these selected variables are common non-content characteristics in short-form videos and are directly related to users' viewing experience and video processing, hence fitting well with the current research objective of examining the effects of non-content features of brand short-form videos on consumer engagement. Second, these elements are easy to implement in brand short-form videos. As such, by studying the effects of these variables, this study could provide digital marketers with easy-to-employ tactics for creating engaging short-form videos. These variables have been categorized into two influencer groups depending on their potential effect on either central or peripheral route processing. The hypothesis regarding each variable is discussed next.



**Figure 1. Consumer Engagement with Brand Short-Form Video: A Conceptual Framework**

## **3.2 Central Route Processing Influencer**

### **3.2.1 Screen Mode**

Screen mode indicates whether the brand video is displayed vertically or horizontally on the devices. Videos in vertical screen mode feature a larger screen and a full-filled interface, whereas those in horizontal screen mode leave some space (e.g., black bars) above and below the video, with a smaller viewing area (See Appendix B). These differences are even more pronounced on mobile handheld devices (e.g., smartphones). A large body of communication research suggested that increasing screen size positively affected users' cognitive perception and processing of information, leading to better persuasive communication outcomes (Detenber & Reeves, 1996; Kim & Sundar, 2016; Kim et al., 2011). A large screen enabled more information to be conveyed (Kim et al., 2011) and showed the information more clearly (by showing objects close up or in a larger mode). As such, brand videos with a vertical screen are considered more informative and are more likely to fulfill consumers' cognitive needs. Additionally, videos displayed in larger and full-screen presentation modes have been identified to be more immersive (Coppola, 2018; Kim & Sundar, 2013) and realistic, which could focus audiences' full attention on the video itself (Mulier et al., 2021). Thus, audiences could better comprehend the video content and evaluate the information conveyed by the brands. Moreover, since most brand short-form videos are viewed on mobile devices, watching videos with a vertical screen is in line with the users' habit of using mobile devices (i.e., holding devices vertically), thus increasing the ease of viewing. This way of using mobile devices also takes little effort since the viewers do not need to continuously hold the device sideways or stabilize the device with two hands (Ryan, 2018). Taken together, the current study proposes that displaying the brand short-form video in the vertical (vs. horizontal) screen mode facilitates the central route processing of information by strengthening several cognitive-related processes, such as information-seeking and keeping attention. Therefore, we hypothesize:

**H1:** Brand short-form videos displayed in vertical screen mode have higher engagement than those in horizontal screen mode

### **3.2.2 Caption**

In general, there are three types of captioning in brand short-form videos: 1) full captioning, where speech-synchronizing subtitles are displayed in the video and captioning the entire video speech content; 2) keyword captioning, where keywords in the speech of a video are displayed and presented to emphasize some contents (e.g., slogan, annotations for critical function); and 3) full and keyword captioning where both full captioning and keyword captioning are applied together (see Appendix B). Despite the usefulness of captions in some circumstances, previous research has found many negative effects of using captions in videos. Watching videos with captions may cause a high cognitive load because viewers must simultaneously process captions and video content and continuously switch between text and image (d'Ydewalle et al., 1987). This long eye movement not only decreases the readability of the caption but also increases the difficulty of comprehending video content, resulting in less information intake (Fox, 2018). Furthermore, captions can be viewed as an intrusion into the original image of the video, which may disrupt the intended shot composition and focus points (Fox, 2018). Particularly in mobile devices with relatively small screens, captions usually cover the video content to a large extent. Even if people attempt to focus more on the video content, the appearance of captions will undoubtedly distract or even interrupt them from processing the video information. Hence, due to cognitive overload and split attention problems, using captions in brand videos may not lead to desirable cognitive outcomes and viewing experiences (Bensalem, 2017; Kim & Sundar, 2016; Perez et al., 2014), consequently decreasing consumer engagement. For example, people may miss essential parts of the video action because of reading the subtitles, thus considering the video as not enjoyable or invaluable and switching to the next quickly. Therefore, we argue that using captions would hinder the central route processing of information by constraining viewers' information reception. Since these

negative effects may occur in all three kinds of caption usage, we hypothesize:

**H2a:** Full captions in brand short-form videos have a negative effect on consumer engagement

**H2b:** Keyword captions in brand short-form videos have a negative effect on consumer engagement

**H2c:** Full and keyword captions in brand short-form videos have a negative effect on consumer engagement

### **3.2.3 Video Title Length**

Unlike captions, which are optional for brands when designing videos, a video title is a must-have when uploading videos and is presented in the videos with a uniform text format (See Appendix B). However, the title length and the content within are editable. Some brand videos with brief titles consist of several words, whereas others have long titles containing sentences, hashtags, mentions, or links that can occupy several lines. Similar to the effect of a caption in brand videos, a textual title will cover the video content or even overlaps with the captions. Accordingly, the textual title may also lead to a high cognitive load and distraction, thus negatively affecting the users' viewing experience and information reception. The greater the title length is, the more serious this negative effect is. Furthermore, from the perspective of readability, many studies researching social media posts have shown that readability would significantly influence consumer engagement. Long post text is expected to be less comprehensible and will decrease the ease with which people read messages (Davis et al., 2019; Pancer et al., 2019; Temnikova et al., 2015), thereby decreasing consumer engagement of those who plan to absorb information from it. Following this logic, for those who attempt to get an overview of the video content from a title, the long title increases the information process's complexity, which may decrease their subsequent interest and engagement with the video. Therefore, this study posits that

the title length will hinder the central route of information processing.

**H3:** The title length of brand short-form videos has a negative effect on consumer engagement

### **3.3 Peripheral Route Processing Influencer**

#### **3.3.1 Human Voice**

The human voice is one central element in advertising language to transmit messages' sense and affective dimension (Rodero, 2017). As a carrier of content transmission in short-form videos, the human voice may influence users' feelings toward the whole video through its unique features and functions. Generally, two types of the human voice are used in brand short-form videos: 1) narration, which refers to a speech given by a person who is not shown in the video, and 2) character speaking, which refers to the speech of the characters shown in the video. Research on the effect of human voice usage indicated that the human voice, as a physiological and psychological cue, had strong connections with people's brands and emotions (Rodero & Lucas, 2021). When people hear human voices, they can feel a sense of affinity, which will evoke a strong and positive emotional response, which can be concluded as the "human emotional intimacy effect" (Rodero & Lucas, 2021). Besides, human voices are embodied, through which audiences can sense the author's unique identity and affective information (Belin et al., 2004; Chebat et al., 2007) and generate empathy accordingly. Through different vocal features such as tones, pitches, speed, and pauses, listeners can perceive the speech's reality and expressiveness and create mental images accordingly, which could increase the advertising effectiveness. (Martín-Santana et al., 2015; Motoki et al., 2019). As such, people may consider the content delivered by human voice to be more vivid, persuasive, credible, and memorable (Rodero, 2017; Rodero & Lucas, 2021). Applying these findings to the current study, we propose that human voices in brand short-form videos can facilitate the peripheral route processing

of information and are more effective in driving empathy, stimulating emotional responses, and thus engaging consumers. Therefore, we hypothesize:

**H4a:** The narration in brand short-form videos has a positive effect on consumer engagement

**H4b:** The character speaking in brand short-form videos has a positive effect on consumer engagement

### **3.3.2 Music**

Music has been widely used as a sensory marketing tool in both offline and online commercial environments for a long time. Advertising always aims to evoke emotions quickly (Abernethy & Franke, 1996; Poels & Dewitte, 2006) to attract consumers and further influence their attitudes and interaction intentions. Among all the advertising elements, music has been considered the most stimulating and helpful component because it can affect feelings without capturing recipients' conscious attention (Hecker, 1984; Palazzi et al., 2019). Literature on multisensory marketing has revealed the positive emotional response to background music and suggested that these positive feelings could facilitate visual evaluation, message acceptance, attention-gaining, interaction willingness, decision-making, and recalls to the ad messages (Hahn & Hwang, 1999; Klein et al., 2021; Palazzi et al., 2019; Sunaga et al., 2020). On social media, brand short-form videos containing music more easily elicit emotional arousal, thus effectively attracting consumers within a short time and likely enhancing their engagement. Moreover, incorporating music in brand videos can stimulate multisensory interaction of sight, sound, and movement, enabling consumers to have a more vivid and immersive watching experience, thereby perceiving the videos as more enjoyable and more likely to engage. Therefore, this study posits that music in brand short-form videos can facilitate the peripheral route processing of information by stimulating emotional and multi-sensation

responses. Thus, we hypothesize:

**H5:** The use of music in brand short-form videos has a positive effect on consumer engagement

## Chapter 4 Methodology

### 4.1 Research Design

The current study aims to investigate the relationship between five non-content characteristics and consumer engagement. In order to address the research question, the current study adopted field study as a research method, which is consistent with most of the research on social media consumer engagement (see Table 1). Compared to a laboratory or specific workplace setting, the field study is conducted in a more naturalistic setting where the real-world data is more representative, reflecting the researched object's actual effect in the natural context. By analyzing the factual web crawling data, we could assess the most actual interaction between brands and consumers in the natural social media environment. Furthermore, considering that brand-consumer interactions are highly diverse and contextual (Coursaris et al., 2016), a field study allows us to include a wide range of brands and customer groups across different backgrounds in research, which is helpful to increase the generalizability of the research results. (Araujo et al., 2015).

As for the empirical setting, this study was conducted on Douyin (i.e., the Chinese version of TikTok). In China, social media usage is the most popular online activity, with a rapidly growing number of citizens focusing on creating and watching short-form videos in recent years (Zhu et al., 2020). According to the latest report, short-form video users reached 934 million in December 2021, representing an increase of 60.80 million over 2021 and making up 90.5% of all Internet users (China Internet Network Information Center, 2022). Founded in 2017, Douyin is the fastest-growing and most popular short-form video application in China. Up to April 2022, Douyin had over 700 million daily active users, projected to surpass 835 million by 2025 (Iqbal, 2022; Statista, 2022b), which far outweighs other same-type applications. Nowadays, Douyin has been incorporated as part of most people's daily lives. Averagely, each user spends more than 2 hours browsing



Douyin videos every day (Insight and Info, 2022). With its large user base and strong user adhesiveness, Douyin has become a promising publicizing channel. It has attracted more than 1 billion views per day (Zhang, 2021); viral videos on Douyin can get up to 200 million views within one day (Graziani, 2020). The remarkable strength in reaching the public has gained increasing attention from brands. More and more brands created Douyin official accounts and launched marketing campaigns on this platform by uploading short-form videos. According to the industry surveys, the Gross Merchandise Volume in Douyin topped 500 billion (Chinese Yuan) in 2020, with an estimated 150 billion (Chinese Yuan) in advertising revenue in 2021, maintaining a steady upward trend. (Sohu, 2021a; Sohu, 2021b). Therefore, given its popularity and public nature, Douyin has become a desirable platform where consumer engagement with brand short-form videos can be observed unobtrusively.

## **4.2 Data Collection**

Regarding the dataset, the current study selected the top 100 ranked brands from the 2021 Interbrand Best Global Brands (Interbrand, 2021). These brands were identified and ranked based on the increased brand value, and this ranking list has been used in other similar research as a pool for brand selection (Ashley & Tuten, 2015; Araujo et al., 2015; Kim et al., 2015; Labrecque et al., 2020; Tafesse & Wien, 2018). For each brand, the historical data for four months, i.e., from 1st November 2021 to 28th February 2022, was collected. Data collection was conducted at the end of May 2022, representing a time window of at least three months between data collection and the original posting date. Consistent with previous research (Banerjee & Chua, 2019; Deng et al., 2021; Kim et al., 2015; Wagner et al., 2017), this time window was applied to mitigate potential changes in consumer engagement after data was recorded. All the Douyin videos posted by the targeted brand during the data collection period were downloaded manually. FEIGUA.cn, an open-source software specific for capturing publicly available data on the Douyin

platform, was used to collect corresponding data to each video, such as the number of likes, comments and shares, the post title, the posting time, the video length, and the view count. When scraping the data, 46 brands were removed because they did not have Douyin accounts or posted less than five videos during the data collection period. The final sample included 4,027 video posts from 54 brands representing 13 industries (see Appendix A for a sample description).

### 4.3 Data Analysis

#### 4.3.1 Measurements

In Table 2, we report the measurements and descriptive statistics of variables in the current study.

**Table 2. Variables, Measurements, and Descriptive Statistic**

<b>Variables</b>	<b>Description</b>	<b>Mean</b>	<b>SD</b>	<b>Min</b>	<b>Max</b>	<b>Frequency</b>
<b>Dependent variables</b>						
Like	Number of likes	9861.35	48877.13	0	1510050	/
Comment	Number of comments	377.13	2851.06	0	109240	/
Share	Number of shares	379.36	4385.68	0	257550	/
<b>Independent variables</b>						
Screen mode	Horizontal screen mode	0.46	0.50	0	1	1842
Full captioning	Full captions appear in the video	0.37	0.48	0	1	1509
Keyword captioning	Keyword captions appear in the video	0.40	0.49	0	1	1597

<b>Variables</b>	<b>Description</b>	<b>Mean</b>	<b>SD</b>	<b>Min</b>	<b>Max</b>	<b>Frequency</b>
Full and keyword captioning	Both full and keyword captions appear in the video	0.14	0.35	0	1	582
Music	Music appears in the video	0.99	0.25	0	1	3977
Human voice_Narration	Narration appears in the video	0.29	0.45	0	1	1178
Human voice_Character speaking	Character speaking appears in the video	0.39	0.49	0	1	1575
Title length	Total word of the full title	46.85	27.98	7	461	/
<b>Control variables</b>						
View count	Total number of the video views	1155980.96	7244309.94	0	228547292	/
Video length	Total seconds of video	44.69	65.22	3	1265	/
Weekend	Video posted on weekends	0.15	0.36	0	1	620
Working Hour	Video posted on working hours	0.39	0.49	0	1	1560
Hashtag	Number of hashtags	1.78	1.20	0	10	/
Mention	Number of mentions	0.10	0.35	0	6	/
Posting month	Month the video was posted	/	/	/	/	/
Brand	Dummy variables for brands	/	/	/	/	/

***Dependent variables.*** In line with prior work, we used the most common social media metrics, namely, the number of likes, comments, and shares, to capture consumer engagement with each brand short-form video. On social media platforms, liking, commenting, and sharing posts are the most common interactive actions that consumers can perform. As such, these metrics have become the prevalent metrics and objectives that have been widely used to measure consumer engagement in previous research (Pancer et al., 2019; Rietveld et al., 2020; Luarn et al., 2015). On Douyin, ‘liking’ is the most effortless engagement behavior, requiring only a click on the ‘liking’ button. The ‘like’ action represents support for the brand or a positive evaluation of the video (Leek et al., 2019; Swani & Labrecque, 2020). ‘Sharing’ allows consumers to publicly spread the videos to others or their timelines. Although it is also easy to perform by clicking a few buttons, the ‘share’ action is highly visible, symbolizing a form of solid brand identification and endorsement (Labrecque et al., 2020; Leek et al., 2019; Pancer et al., 2019). Through ‘commenting,’ users can express their thoughts and communicate with the author or other users. This behavior requires the most cognitive resources because people need to process the video well and put time and effort into formulating and entering the comments and sharing their opinions (Luarn et al., 2015), showing a strong willingness to interact with the brand content. Overall, all these three indicators can reflect brand engagement well directly. Moreover, from the practical side, these metrics are readily available and easy to track by brand managers, which can provide immediate feedback on brand video analysis (Rietveld et al., 2020). Therefore, measuring consumer engagement using the volume of the number of likes, comments, and shares is appropriate in the current study.

***Independent variables.*** The current study has eight independent variables that represent the five non-content characteristics of brand short-form videos, namely, screen mode (whether the brand video is displayed vertically or horizontally on mobile devices), caption

(whether the brand video uses full captions, keyword captions, or both), video title length (total number of words of video title length), human voice (whether the brand video includes narration or character speaking), and music (whether the brand video includes music). Video title length was measured by the word counts of the video title. Other independent variables were manually coded by analyzing each brand video according to the definition from a detailed coding scheme (see Appendix B).

The coding process involved three phases. First, a coding scheme was created based on the definition of each independent variable and preliminary observation of a portion of the sample. Applying this coding scheme, the author completed the first round of coding. Second, 10% of the collected videos ( $n = 450$ ) were randomly selected and coded by an external coder without knowing the proposed hypotheses. The external coder was recruited to code the selected videos independently as validation. Considering that the researched variables in the current study are all objective characteristics, which can be easily identified and have a less possible discrepancy, one coder combined with a validation using 10% of the sample is acceptable. The validation results showed a high degree of agreement between the two coders. Regarding inter-judge reliability, an overall 95.33% agreement (Screen mode: 98.67%; Caption: 87.78%; Human voice: 95.78%; Music: 99.11%) was reached for all coded variables. Third, consensus was achieved by discussions and deliberations between the coders, and the author updated the original coding based on the validation result. Therefore, the reliability of the coding result in the current study could be confirmed. Dummy variables were created to represent these independent variables.

***Control variables.*** A series of control variables have been included for their potential influence. First, the view count is directly related to consumer engagement. Only if the video is viewed will there be potential engagement behaviors; the more the video is viewed, the greater possibility of engagement with it. Thus, we included the view count as a control

variable to control this effect. Secondly, video length is considered a potential influencing factor for engagement. Although videos in Douyin are generally short, some videos are up to dozen minutes, which may lead to a difference in consumer engagement. Hence, video length was included as a control variable. Thirdly, research has shown that consumers may engage with brands differently based on the posting time (McShane et al., 2019; Wagner et al., 2017). To exclude the potential influences, we created two dummy variables that indicated whether a video was posted on weekends and working hours to control this effect. Fourthly, given that the hashtags and mentions in the video's title are related to the interactivity of the video (De Vries et al., 2012; Cvijikj & Michahelles, 2013; Luarn et al., 2015), which may influence engagement data, we considered the number of hashtags and mentions for control variables. Fifthly, previous studies have pointed out that brand was a vital factor that might affect consumer engagement. Brand characteristics such as brand reputation and marketing preference may strongly affect consumer engagement on social media (Van Doorn et al., 2010). Therefore, this study created dummy variables for brands, which was also helpful in excluding interference caused by the unique brand audience profiles and naturally controlling the influence from industry and brand follower size (Deng et al., 2021). Finally, the months by which the videos were posted were also controlled. Since the brands' historical follower size data was not accessible on Douyin, controlling months can enable us to minimize the potential influences caused by the changes in historical brand follower size (Deng et al., 2021).

#### **4.3.2 Hypothesis Testing**

For hypothesis testing, multiple linear regressions were used in the current study to examine the effects of various video characteristics on consumer engagement. The dependent variables were the number of likes, comments, and shares. Considering that the distribution of these three variables was heavily skewed, we followed previous research (Deng et al., 2021; McShane et al., 2019; Schultz, 2017) and applied the natural logarithmic transformation of likes, shares, and comments, i.e.,  $\ln(\text{Like}+1)$ ,

$\ln(\text{Comment}+1)$ ,  $\ln(\text{Share}+1)$ , as our dependent variables. We added '1' here to avoid taking logs of zero (Deng et al., 2021). The study used IBM SPSS Statistics Version 28 for measurement statistics analysis and hypotheses testing. SPSS is a widely used statistical software in social science research, thus providing a reliable tool for analyzing the current data (Deng et al., 2021). In the following section, the statistical analysis results are reported.

## Chapter 5 Results

The standardized estimation results are presented in Table.3. As a whole, the model for ‘like’ was significant ( $F = 144.838, p < 0.001$ ) and explained the variance of the dependent variable well ( $R^2 = 71.9\%$ ,  $Adj. R^2 = 71.4\%$ ). Similarly, the model for ‘comment’ was significant ( $F = 85.825, p < 0.001$ ), accounting for the variance of the dependent variable well ( $R^2 = 60.3\%$ ,  $Adj. R^2 = 59.6\%$ ). Furthermore, the model for ‘share’ was also significant ( $F = 115.064, p < 0.001$ ) and provided good explanatory power for the dependent variables ( $R^2 = 67.1\%$ ,  $Adj. R^2 = 66.5\%$ ).

Regarding the effects of central route influencers, the result suggested that the factors facilitating the central route processing positively affected consumer engagement, whereas those hindering the central route processing led to less consumer engagement. As expected, brand short-form videos displayed in vertical screen mode received more likes, comments, and shares than those in horizontal screen mode, thus, supporting H1. In contrast, the negative effect of all three caption types on like, comment and share was significant, showing that the appearance of any type of caption in brand short-form videos discourages consumer engagement. Hence, H2a, H2b, and H2c were all supported. Similar to the adverse effect of captions, long titles that led to high cognitive loads and distraction also significantly negatively affected consumer engagement. More specifically, the longer the title in the video, the fewer likes, comments, and shares the video received. Thus, H3 was supported.

**Table 3. Standardized Estimation Results for Consumer Engagement**

Variable		Like	Comment	Share
Screen mode	Horizontal screen	-0.077***	-0.055***	-0.039**
Caption	Full captioning	-0.092***	-0.116***	-0.119***
	Keyword captioning	-0.075***	-0.082***	-0.065***
	Full and keyword captioning	-0.083***	-0.115***	-0.104***
Title length	Total word count	-0.054***	-0.058***	-0.052***



Variable		Like	Comment	Share
Human voice	Narration	0.031**	0.008	0.031*
	Character speaking	0.013	0.008	-0.002
Music	Music	0.026**	0.022*	0.025**
Control variables	View count	0.242***	0.202***	0.234***
	Video length	-0.011	0.007	0.004
	Weekend (vs. Weekday)	-0.001	0.003	-0.006
	Working hours (vs. Non-working hours)	-0.013	-0.020 <sup>a</sup>	-0.017 <sup>a</sup>
	Hashtags	0.021	0.035*	0.015
	Mentions	0.045***	0.083***	0.048***
	Posting month (December)	-0.028*	-0.040**	-0.018
	Posting month (January)	-0.015	-0.032*	-0.019
	Posting month (February)	-0.011	-0.037*	-0.020 <sup>a</sup>
	Posting month (November)	/	/	/
Brand (53)	/	/	/	
Unstandardized Constant		7.744	4.311	3.897
N		4027	4027	4027
F-Value		144.838***	85.825***	115.064***
R <sup>2</sup>		0.719	0.603	0.671
Adjusted R <sup>2</sup>		0.714	0.596	0.665

Note: <sup>a</sup> p < 0.1; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001

In terms of the effects of peripheral route influencers, we found that the brand short-form video characteristics that facilitate peripheral route processing generally stimulated consumer engagement. Music in brand short-form videos significantly influenced consumer engagement regarding all three engagement behaviors. Therefore, H5 was supported. Regarding the effect of the human voice, we found that narration significantly positively affected both liking and sharing but not commenting. As for the character speaking, no significant effect was found on consumer engagement. Thus, H4a was only partially supported, and H4b was not supported. As for H4a, maybe it is because commenting on a video is the most cognitively loaded compared to liking and sharing behaviors. Hence, it is less utilized in peripheral route processing and relatively hard to be stimulated by peripheral cues. One possible explanation for H4b is that character speaking may be viewed as a natural part of the video content instead of the peripheral cues. Unlike

the narration, consumers can directly see the characters appearing in the video and will process their speech automatically when listening to the talking. In this way, consumers are more focused on evaluating the information value of the speech content rather than paying attention to the human voice. As such, the human voice as a peripheral influencer does not take effect in this context. The overall result of hypothesis testing is summarized in Table 4.

Furthermore, as expected, some control variables were found to affect consumer engagement significantly. View counts and the number of mentions significantly influenced all three engagement behaviors, while the number of hashtags only significantly affected commenting. The working hour was negatively related to commenting and sharing significantly. However, the weekend had no significant impact on consumer engagement. Likewise, there was no significant relationship between video length and consumer engagement.

**Table 4. Hypothesis Testing Result**

Hypothesis	Supported
<b>Central route influencers</b>	
<b>H1:</b> Vertical Screen mode → Consumer engagement (+)	Yes
<b>H2a:</b> Full captioning → Consumer engagement (-)	Yes
<b>H2b:</b> Keyword captioning → Consumer engagement (-)	Yes
<b>H2c:</b> Full & keyword captioning → Consumer engagement (-)	Yes
<b>H3:</b> Title length → Consumer engagement (-)	Yes
<b>Peripheral route influencers</b>	
<b>H4a:</b> Human voice_Narration → Consumer engagement (+)	Partially support
<b>H4b:</b> Human voice_Character speaking → Consumer engagement (+)	No
<b>H5:</b> Music → Consumer engagement (+)	Yes

## Chapter 6 Discussion

### 6.1 Theoretical Implications

The current study has many theoretical implications. First, the current study examines how non-content characteristics of brand short-form videos influence consumer engagement on social media. Thus far, most research on brand social media posts has primarily targeted textual or pictorial posts, with very little attention paid to brand short-form videos. The limited literature addressing brand video popularity remained concentrated on the informational content of the brand video while, to some extent, overlooking the non-content video characteristics. Therefore, this study contributes to social media content marketing and consumer engagement literature by revealing the effects of non-content characteristics of brand short-form videos. Moreover, the significant effects of various sensory elements in brand videos on consumer engagement underscore the necessity and importance of studying various modalities in social media brand posts.

Second, the current study investigates video characteristics based on the dual information processing model (ELM) (Petty & Cacioppo, 1986). The research findings reveal that the strategic design of some video characteristics can facilitate the central route processing to enhance consumer engagement. For example, brand videos displayed in vertical screen mode with a short title and no captioning are more likely to have higher engagement. These factors encourage consumer engagement by magnifying the rational appeals of the video and strengthening consumers' cognitive processing. Our results also support that some video characteristics can improve peripheral processing to increase consumer engagement, such as adding narration and music in the videos could effectively evoke affective responses. These factors take effect by building emotional connections and personal attachments between the video and the audience (Cortez et al., 2020; Swani et al., 2014). By considering both rational and emotional appeals of brand short-form videos, this study supports the

literature and theory recognizing the power of emotional and rational appeals in consumer engagement. Moreover, it contributes to the body of knowledge by identifying the roles of video non-content characteristics in delivering these appealing effects.

Finally, this study extended the application of the Elaboration Likelihood Model (Petty & Cacioppo, 1986) to the new context of social media brand short-form videos and mobile short-form video Apps. The research results confirm the effectiveness of both central and peripheral route processing and demonstrate the power of the ELM in explaining consumer attitudes and behaviors in social media communication, contributing to the literature on the ELM and its application.

## **6.2 Practical Implication**

In terms of the practical implications, first, it motivates the brands to be more active in social media by driving their attention to the emerging media type---the short-form video, which is a promising online marketing channel. Compared to textual posts or image posts, short-form video, as a visual-audio media type, provides brand marketers with more creative space to deliver information and more possibilities to connect with potential followers. Most short-form video platforms are highly entertaining and publicly accessible. On these platforms, brands can freely decide the posting time and frequency, and the posted content is viewed as less commercial. As such, brands can engage a wide range of consumers more efficiently at a relatively low cost. Therefore, being active in short-form video platforms such as TikTok and Douyin and creating attractive short-form videos are critical in the digital era.

Secondly, the current study underscores that the non-content characteristics are as important as the content in brand short-form videos. Undoubtedly, content has always been the focus of marketers and advertisers, while non-content characteristics as the most

common and frequently used elements in brand video design, which are easily overlooked. By showing the significant effect of screen mode, caption, title length, human voice, and music, the current study drives the attention of marketers and advertisers toward the power of these non-content cues. Our findings indicate that paying more attention to the design of non-content characteristics is another potentially fruitful direction for achieving desirable marketing goals.

Thirdly, instead of researching ‘What to post?’, the current study addresses the more practical issue, i.e., ‘How to post?’. Based on our findings, we offer hands-on tactics for brands regarding how to design compelling videos through the appropriate use of many elementary elements. More specifically, our empirical result suggested that videos with vertical screens are more favored by consumers. In addition, brands should diminish the use of captions or strategically arrange their placement to minimize the distractive effect on the video content. Likewise, to avoid a similar adverse effect of the titles, brands should shorten the video title and summarize the necessary information effectively. Besides, brands could consider using appropriate narration in the video if possible. Lastly, brands should not forget to add background music in videos, as it is a helpful tool for increasing engagement. All the abovementioned strategies are easy to implement and target the must-concern issues when creating and uploading brand short-form videos. Nowadays, mobile short-form video has gradually become dominant in brands’ marketing practices, where brands have invested much money and effort. Although knowing that creating engaging or viral videos is the key to maximizing the marketing ROI in this new channel, brands have long struggled to identify an effective way. Currently, by emphasizing the appropriate setting of non-content characteristics, our findings provide brands with practical and clear guidelines in this direction.

Finally, the current study emphasizes how the researched brand characteristics function on consumers’ cognitive processing and emotional bonding and provides corresponding

guidance regarding two process routes (Deng et al., 2021). With this comprehensive understanding of these video features, brands can make different arrangements accurately to enlarge the engaging effect when dealing with videos with different targets.

### **6.3 Limitations and Future Research**

The current study investigates the effects of non-content characteristics of brand videos on consumer engagement. Although this study presents several insightful findings, it has some limitations that can be addressed in future research.

First, the current study proposes that the non-content characteristics of brand short-form video can influence the two processing routes based on the theoretical foundation of ELM. However, these arguments are theoretical deductions rather than testing results from experiments. In order to provide strong evidence supporting the posited effects, further research could conduct controlled experiments to validate the underlying mechanism. At the same time, although we acknowledge that mobile devices are the most widely chosen for watching short-form videos (Thomala, 2022), the current study could not include watching devices and users' viewing behaviors as the control variables since it is a field study. Future studies could test the effect of short-form videos' characteristics on different contexts in the experiment setting.

Additionally, this study is conducted based on Douyin since it is one of the most popular and adopted short-form video social media platforms in China and the predecessor of its globally popular twin application, TikTok. Although the researched brands are multinational companies, users' activities and preferences may vary across cultural backgrounds. Therefore, exploring whether these non-content characteristics have similar effects on consumer engagement in other countries would be interesting. Likewise, it is also interesting to research other short-form video platforms, e.g., Instagram stories. Such

investigation is essential for generalizing the findings of this study and informing proper branding strategies on short-form video social media platforms.

Moreover, the current study mainly focuses on brand short-form video characteristics that are relatively objective. It would be interesting to extend the research realm to investigate the effects of subjective features, such as storytelling, humor, and celebrity endorsement. Besides, the current study mainly examines the presence of non-content characteristics without further digging into more specific designs of those characteristics. Future research could extend the current study by considering specific designs of non-content characteristics. For example, it would be valuable to investigate the effects of music type or acoustic characteristics of narration or character speaking.

Also notably, some characteristics examined in this study are multi-dimensional, i.e., they can be viewed as non-content or content characteristics depending on the research perspective. For example, narration and character speaking are viewed as non-content characteristics in this study because they are two types of human voice usage. Here, the human voice is considered a medium of delivering video content, and the research focuses on the effect brought by this feature rather than the speech content. Similarly, music is considered a non-content characteristic as it is a background setting of brand short-form videos. The current study mainly focuses on the emotional and multi-sensory effects of its presence rather than the information embedded within (e.g., the meaning conveyed by the lyrics or genre). However, future research could treat narration, character speaking, and music as parts of the video content and examine the effects of the contents carried by these delivering mediums. Such investigations will further deepen our understanding of the effects of these short-form video characteristics on consumer engagement.

Finally, although the current study mainly focuses on non-content characteristics, it would

be interesting to investigate the potential interaction between non-content characteristics and video content. Understanding the role that video content plays here would help further unveil the effects of non-content characteristics. For example, future research could examine how music and video content fit affect consumer engagement or when and where to add different types of captions according to the video content. Discovering these interactions will enable us to understand how the two information-processing routes function interactively and provide more detailed tactics that social media marketers can use to stimulate consumer engagement.



## **Chapter 7 Conclusion**

Although research on social media consumer engagement has gained considerable progress in recent years, most of this work concentrated on content features of textual and pictorial brand posts. As an emerging social media type and marketing channel, brand short-form video has gained little attention despite its growing prevalence in recent years. The current study, therefore, focuses on the effect of non-content characteristics of brand short-form videos. We build on the Elaboration Likelihood Model (ELM) to propose that non-content characteristics of brand short-form videos may affect consumer engagement by influencing the central or peripheral information-processing route. Those facilitating the information processing routes will increase consumer engagement, whereas those hindering the information processing route will decrease consumer engagement. Through analyzing 4027 brand short-form videos on Douyin (Chinese version TikTok), we empirically test five common non-content video characteristics: screen mode, caption, video title length, human voice and music. As expected, our findings showed the various significant effect of these non-content video characteristics on consumer engagement. These results provide preliminary evidence of the importance of non-content characteristics in short-form videos, indicating a potential direction to improve consumer engagement for brand marketers. Considering short-form videos' increasing popularity and business promise, much more research in this area is required in the future.

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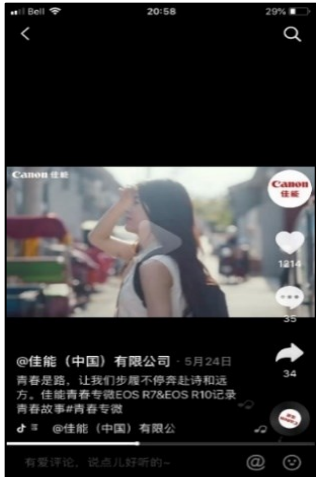
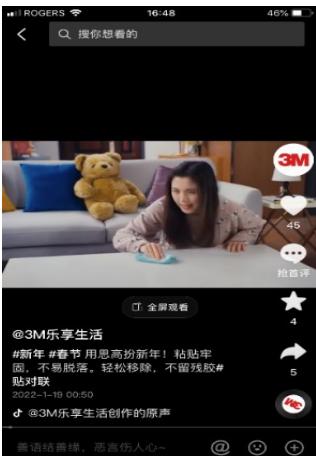
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## Appendix A. Sample Description

Brand	Industry	Douyin ID	Followers	Following	Videos	Likes
3M	Diversified	3Mzhibojian3M	222000	12	31	170751
adidas	Sporting Goods	adidasSP	6238000	4	19	462344
Audi	Automotive	140973989	1674000	38	141	524469
BMW	Automotive	BMW_China	5223000	1	71	5783279
Budweiser	Alcohol	991342475	152000	11	11	51207
Burberry	Luxury	Burberry	136000	0	51	339275
Canon	Electronics	jianengzhong	197000	8	34	93587
Cartier	Luxury	cartier_1847	1133000	0	97	815518
Cisco	Business services	Cisco_China	2276	4	26	1704
Citi	Fiance serves	citibankchina	68000	7	13	361
Coca-cola	Beverage	31035727910	111000	6	38	8138
		dysakwxscjan	96000	5	9	438
Corona	Alcohol	dy71nzy0ueoh	94000	18	22	97521
Colgate	FMGG	590404973	316000	11	47	21658
Dior	Luxury	787647614	1095000	24	72	7241000
Ford	Automotive	137090348	1848000	73	58	884447
General Electric	Diversified	2239773062	37000	4	9	1369
Gillette	FMGG	1770861569	224000	2	132	9187
Gucci	Luxury	GUCCI	2765000	0	46	2598721
Heineken	Alcohol	Heineken_CN	34000	3	18	119223
Hennessy	Alcohol	HennessyOfficial	28000	4	11	10315
Honda	Automotive	Honda_China	985000	6	45	484037
HP	Electronics	845334988	252000	17	23	41279
Huawei	Technology	huaweiguandou	13022000	74	325	6196937
Hyundai	Automotive	787903414	908000	183	39	710817
Ikea	Retail	606334163	335000	5	40	20805
Intel	Technology	947382643	271000	6	28	43496
Johnson & Johnson	FMGG	Johnsonsbaby666	20000	6	36	1281
KFC	Restaurant	867105841	1520000	9	167	286969
Kia	Automotive	1754930166	668000	6	50	16263
L'oréal	FMGG	700989007	2139000	29	74	222863
Landrover	Automotive	1235101844	723000	1	50	727733
Lego	FMGG	LEGObrand	251000	1	38	163107
louisvuitton	Luxury	LouisVuitton	1703000	0	83	1021930


Mercedes-Benz	Automotive	MercedesBenz	3315000	0	104	2364190
Microsoft	Technology	71587629171	40000	4	60	78681
Nescafé	Beverage	Nescafé	134000	11	31	213047
Nestlé	Retail	Nestle001	303000	55	436	9411
Nike	Sporting Goods	nikejdi	815000	43	43	528265
Nissan	Automotive	333411407	1701000	9	97	731771
Panasonic	Electronics	songxiajiang	223000	418	13	14373
Pepsi	Beverage	1693088256	597000	24	23	475283
Philips	Technology	Philipslab	259000	145	47	19505
Porsche	Automotive	Porsche_China	724000	0	26	366732
Prada	Luxury	PRADA	600000	1	129	549247
Samsung	Technology	82672497	669000	8	98	390421
Sephora	Retail	sephoraofficial	1427000	20	18	142935
Siemens	Diversified	SiemensHA	203000	13	30	5977
Sony	Electronics	1653616793	2108000	115	159	2160587
Starbucks	Restaurant	691960905	1156000	369	51	614852
Tesla	Automotive	TeslaChina	1180000	53	75	200848
Tiffany&Co.	Luxury	Tiffany	1236000	2	28	1631801
Toyota	Automotive	601424085	1019000	2	200	172410
		581273644	891000	6	185	911533
Volkswagen	Automotive	SVW_VW	3097000	15	97	1488434
		818537634	2457000	33	96	4295165
Zara	Retail	ZARA_Official	371000	2	27	322120


## Appendix B. Coding Scheme

Variable		Definition	Example
<p><b>1. Screen mode</b></p>	<p><b>Vertical screen</b></p>	<p>The shooting angle is vertical, and the video feature a full-filled interface on the devices</p>	
	<p><b>Horizontal screen</b></p>	<p>The shooting angle is horizontal. Most of these videos would not fill the entire device's interface; it is usually placed in the middle of the interface, leaving some space on the top and bottom of the video, including the videos which can be manually converted</p>	 



<p><b>2. Caption</b></p>	<p><b>Full-text caption</b></p>	<p>Speech-synchronizing subtitles in the video (lyrics synchronization included), captioning the entire video content</p>	
	<p><b>Keyword caption</b></p>	<p>Only captioning some keywords in the video or the text appearance of some keywords (e.g., brand name)</p>	
	<p><b>Both full-text caption and keyword caption</b></p>	<p>Both two kinds of captioning appear in the video</p>	
	<p><b>No caption</b></p>	<p>The following circumstance should be considered as no caption:</p> <p>1) No text appears</p>	

		<p>2) The text attached to some objects that appeared initially in the video should not be identified as a caption, such as banners at the exhibition, the setting option on the monitor, and the slogan displayed by the product. (The texts should be post-added to the video during the post-production to be coded as captions)</p> <p>3) The must-added explanatory expressions due to law or compliance requirements</p>	
<p><b>3. Human voice</b></p>	<p>Whether there any human appears, including narration and characters speaking, these two kinds of human voices could appear at the same time.</p>	<p><b>Narration:</b> A speech is given by a person who is not seen on the screen</p> <p><b>Character speaking:</b> The speech is given by the characters shown in the video</p>	
<p><b>4. Music</b></p>		<p>Whether any music appears, including melody and songs in the videos.</p>	

<p><b>5. Title length</b></p>		<p>Represented by the number of words in a full title, including the ‘folding’ part. Unlike the caption, the title is white text in uniform font size and appears below the @brand ID in all videos. Feigua.cn captures this variable.</p>	
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