

Gender and Age differences impact purchase intentions on TikTok

Yiding Wang^{1*},

Nanxin Zhang²

¹North London Collegiate School,
Singapore, 109708, Singapore,
Tiffanywang2006@outlook.com

²Hangzhou Foreign Language
School, Huangzhou, 310023, China,
xnancyzhang07@163.com

*Corresponding author email:
Tiffanywang2006@outlook.com

Abstract:

This study explores the differential effects of gender and age on purchase intentions influenced by TikTok short video advertisements. Through a quantitative survey of 680 Chinese-speaking participants, the research reveals that while visual appeal is the most crucial factor across all demographics, Generation Z, particularly females, are notably more responsive to celebrity and influencer endorsements compared to older age groups. The study reveals important implications for targeted marketing strategies on short-form video platforms, highlighting the need for visually appealing content and strategic use of influencers, especially when targeting younger female consumers.

Keywords: TikTok, Gender differences, Age differences, Purchase intentions, Short video advertisements

1. Introduction

Short video content has become a driving force in social media, revolutionizing how people create, consume, and engage with online content. In 2013, the arrival of Vine, the first short video App, made it easy for users to create and share short videos. However, it was the launch of TikTok that promoted the use of short videos. The name TikTok suggests the short format of the videos. Launched in September 2016 by the Chinese startup company ByteDance, it is known as Douyin in China. According to Investopedia, TikTok launched in its present form in 2018. In record time it joined the ranks of social media giants. As of February 2024, it has been downloaded approximately 4.7 billion times.

The cohort known as Generation Z, born between 1997 and 2012, is characterized by their early and extensive use of social media platforms. This digital native status suggests that social media plays a piv-

otal role in shaping their interactions, information consumption, and potentially, their purchasing behaviours. Among social media platforms, TikTok has become particularly influential, altering marketing approaches, especially for clothing brands targeting Gen Z females – a group known for frequent online shopping. Thus, examining how TikTok's short video ads influence Gen Z females' clothing purchase intentions is a valuable area of study.

The rapid rise of TikTok as a dominant social media platform transformed contemporary marketing strategies, particularly for clothing brands targeting Gen Z females, who tend to make more online purchases than other age groups (Rezek et al., 2022). Generation Z, comprised of individuals born between 1997 and 2012, grew up with social media as a crucial platform for interaction and information. Did Gen Z's early adoption of social media significantly influence their generation's purchasing intentions?

Video advertising has become an increasingly vital component of digital marketing strategies. TikTok, with its diverse user base spanning various ages and professions, early emerged as a preferred platform for brands and sellers to post advertisements, seemingly with effective results. The impact of TikTok's short video advertisements on clothing purchase intentions among Gen Z females warrants further research.

This study focuses specifically on short video advertisements on TikTok — a choice due to TikTok's extensive reach and immense popularity. While much previous research concentrated on the online behaviour of younger generations of Gen Z, this study compares data gathered from both those younger age cohorts, as well as those several generations older. To do so, this paper analyzes a range of potentially co-related data, including the reported usage of TikTok across all age groups and whether those users say that the short-video ads on TikTok influence their purchasing intention — and if so, what factors are persuasive.

2. Literature Review

TikTok Marketing

The new marketing communication approach dominated by social media presents opportunities and new challenges for brands, as purchasing decisions are heavily influenced by social media interactions (Dennhardt et al., 2014). TikTok is increasingly favoured by users over other social media platforms because it offers 'entertainment' values, diversity and positive self-expression (Munoz et al., 2022)

2.1 Purchase intention

(1) Short Video Content

Purchase intention, a critical stage in consumer decision-making, has been of interest to marketing and academic research (Hameed et al., 2023). The most influential factors that shape consumers' purchase intentions in the digital era have been examined by recent studies (Ananda et al., 2022; Liu et al., 2019). "Engaging content" is a key factor in the virtual world. TikTok video exchange and visual social media content are growing as far as consumers' interpersonal trust affects them positively and leads to positive brand perceptions, while at the same time, influencing purchase intentions according to Atkins and Kim (2022). Levering et al. (2023) noted that the accessibility on TikTok for finding and buying fashion items influences sales decisions positively proving an earlier study done by Napompech (2014), which has shown the significance of accessibility in e-commerce. Additionally, Xiao et al. (2019) argued that this results from the brevity of the

videos which forces marketers to concentrate on selling points with little space from other details.

(2) Brand Image

When it comes to shaping the audience's perception and influencing their buying behavior, the overall impression of consumers towards a brand in terms of their experiences and interactions remains crucial. Consumer trust, loyalty, and willingness to purchase are improved by a positive brand image (Zhang et al., 2023). Their purchasing intentions rest on brand image (Kim, 2010). Favourable information about brands positively influences the price-quality differential as well as buying propensities (Dodds et al., 1991; Monroe et al., 1985). Zhong et al. (2020) argue that 'brand image has become an indirect indicator of purchase intention for luxury brands'. For instance, if the brand image improves, consumer perceived quality and perceived value will increase for luxury brands.

(3) Influencers and Celebrities Endorsements

Recent research indicates a substantial influence of celebrities and social media influencers on the purchasing decisions of Generation Z females. Machecha et al. (2024) examined the effects of celebrity endorsements on consumer preferences, revealing a strong correlation between influencer recommendations and Gen Z women's trust. Social media influencers, who have a strong fan base, have built strong relationships with their followers, encouraging active participation, and support, according to Bu et al. (2022). High values of participants regarding the credibility and attractiveness of influencers, as well as the strong connection between the endorsed products (Rita et al., 2017).

(4) Emotional Engagement

Advertisements with emotional appeal can be perceived as a trend by which companies want to stimulate final purchasing decisions (Vrtana & Krizanova, 2023). They found that the impact of emotional appeal advertising depends on the age structure of the population. They stated that emotionally appealing advertising has the most significant impact on Generation Z, as young people are exposed to a variety of advertising campaigns that support their purchasing behaviour and various social perceptions (self-confidence, self-esteem, beauty, etc.). According to Gao et al. (2022), funny and interesting short video adverts can attract attention and generate pleasure, which in turn creates an intrinsic motivation to purchase the product.

This study builds on Munoz et al. (2022) and others by exploring the impact of TikTok's advertising on e-commerce strategies and consumer behaviour. While previous studies have largely concentrated on Generation Z's purchasing intentions, our research expands the demographic range. We offer a comparative analysis of self-reported

perceptions regarding the influence of TikTok's short-video product advertisements, highlighting the differences between individuals aged 46 and above and Generation Z.

Research Question 1:

Do TikTok's short video ads differently influence purchase intentions by age — specifically between Gen Z and older age cohorts?

Research Question 2:

Do TikTok's short video ads differently influence purchase intentions by gender identity?

3. Methodology

This study employed a quantitative research approach to investigate four aspects: demographic information, frequency of exposure to short video ads, average spending on online purchases of clothing brands, and the influence of advertisement factors on purchasing intention.

Wenjuanxing (<https://www.wjx.cn/>) was used as a tool for data collection. The survey was distributed through online links to multiple media platforms, including WeChat, Instagram, and TikTok, to ensure a broad geographical reach. The questionnaire was divided into three parts. The first section was mainly about the collection of participants' personal information. The second section obtained data on participants' online activity patterns and social media usage. The third section asked participants about their online purchasing behaviour. The survey included multiple-choice questions to facilitate responses and analysis. The Likert scale was also used to measure the level of agreement or frequency of behaviour on a scale. The scale ranged from "very unlikely" (1) to "very likely" (5), allowing for comparing the attitudes and behaviors of different groups of participants.

Once the survey was finished, 5 participants were given a pilot test. We then reset the questions found in the pilot test, mainly adjusting the order and content of the ques-

tions.

The study used convenient sampling for data collection. The data are distributed through WeChat groups, WeChat Moments and TikTok. With friends and relatives reposted on their other WeChat groups and moments, this survey involves people with various age ranges.

The data collection resulted in 680 responses; 20 invalid responses, including those with logic errors and leave-blank questions, were eliminated. Detailed demographic information, including age, education level, income, and shopping habits. Females took the lead in this survey. Specifically, there were 407 female respondents (60 %) and 273 male respondents (40%). Among all the responses, 650 were from 32 provinces and cities across the country, while the other 30 were from overseas. The ages ranged from 14 to 75 years old, and all respondents were Chinese-speaking individuals. Although respondents were divided into age groups, the majority were clustered in the 19-25 and 35-45 age groups.

The data analysis in this study was performed using cross-filtering to identify relationships between multiple variables. The data was analyzed through demographic variables (e.g., age group) to understand how different groups interacted with TikTok short video ads. In addition, the effects of varying advertising features (e.g., visual appeal, influencer endorsements) on purchase intentions of varying age groups and genders were compared.

This study omits WeChat, despite its popularity, as its primary functions fall outside our focus on short video platforms. We instead examined how Gen Z uses TikTok, the next most used app, to gain insights into current trends in video-based social media.

4. Findings

TikTok Usage

Which social media platforms do you use for more than 3 hours a day?

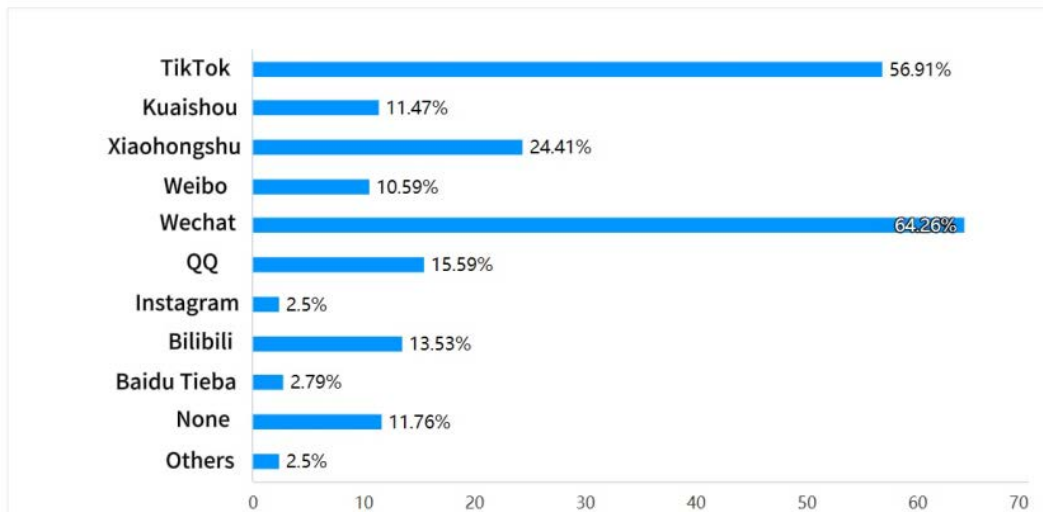


Fig. 1 Social media usage time

The data collected on the usage time of social media platforms indicate that participants frequently use TikTok: nearly all respondents use TikTok daily, with 57% of respondents spending over 3 hours on the platform. Further analysis reveals that the duration of TikTok use is significantly associated with gender and Generation Z. Among respondents who use TikTok for more than 3 hours, female users typically spend more time on TikTok than male users, accounting for about 60% of this group.

The data compares Generation Z (15-28 years old) and older generations (46 and above). Both age groups have the same percentage of respondents using TikTok, 67%, indicating that TikTok is popular among all age groups. According to BACKLINKO, 25% of TikTok users aged between 18 and 24 in the U.S. in 2024, while 27% of TikTok users aged above 45 years old. This is also a clear indication of the popularity of TikTok among all age groups.

Aspects of short video ads influence purchasing decisions

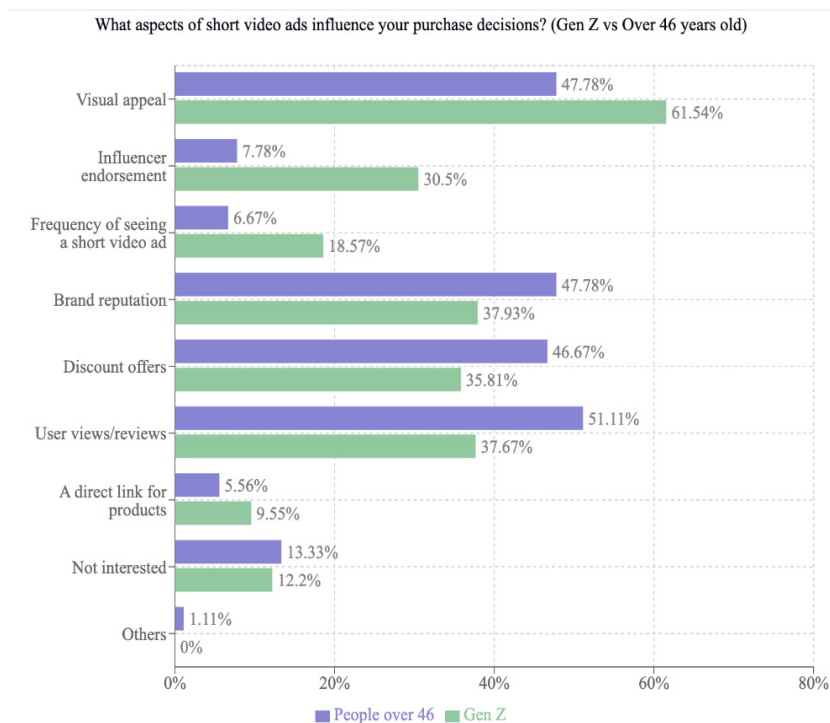


Fig 2 Aspects of short video ads that influence buying decisions

An evaluation of various factors affecting purchase decisions in online short video ads shows that visual appeal scores the highest, accounting for 58%, while direct product links score much lower, at 9%. Further analysis reveals that the impact of these factors on purchase decisions is significantly associated with gender and Generation Z. Additionally, Generation Z users make up 59% of this demographic, significantly exceeding the representation of other age groups. These findings indicate that visual appeal is a significant driver of purchase decisions, especially among younger female users, and suggest that the influence of visual factors tends to be more pronounced among Generation Z. About 31% of Generation Z are affected by the recommendation or appearance of celebrities or influencers in short video ads. This compares to data gathered from people over 46 years old, of whom only 8% are influenced by celebrities and influencers, a vast difference from the 30.5 per cent from Gen Z. This means that celebrities and influencers are more likely to impact Gen Z purchasing intentions.

Our study reveals significant gender-based differences in online shopping behaviors among Generation Z. Female participants exhibited higher rates of online purchases for clothing (71.65%) and cosmetics (44.85%) within one month, compared to their male counterparts (45.9% for clothing and 8.2% for cosmetics). Brand preferences also varied by gender. While 85.57% of female participants favoured Taobao retailers and 27.32% preferred sportswear brands, male participants showed a stronger inclination towards sportswear (48.09%) and a relatively lower preference for Taobao retailers (60.11%, approximately 20% less than females). Additionally, female participants were more susceptible to celebrity and influencer endorsements in short video advertisements, with 37.63% reporting being influenced by such content, compared to 22.95% of male participants.

5. Discussion

This study has revealed that visual appeal, brand reputation, user reviews and influencer endorsement of TikTok short video ads have a relatively huge impact on the purchasing decisions of Gen Z. TikTok has quickly become a dominant social media platform that appeals to a wide range of age groups. TikTok is predominantly popular among younger users, it also features a diverse range of content creators across different age groups (Ma et al., 2024). According to Ng & Indran (2023), TikTok is becoming increasingly popular with older adults who are not only present but are also starting to create content.

Across all demographics, visual appeal emerged as the most influential factor in short video advertisements. This

finding emphasises the importance of visual appeal in digital marketing, in line with Yousef et al., (2021) study on strong visually appealing advertisements. They stated that online advertisements with strong visual appeal are more likely to evoke positive emotions such as happiness and excitement, and are particularly effective in driving engagement and purchase intention. Creative advertising typically has visual appeal. Creative presentations can capture consumers' attention and evoke an emotional response, resulting in a stronger urge to make an impulse purchase (Feng et al., 2023). A similar argument was made by Mead et al., (2020) that creative visual presentations are positively correlated with the urge to buy immediately. The research results show that the influencer and celebrity endorsement in short video advertisements will have a significant impact on Generation Z. The possible reason for the significant influence of celebrities or influencers on short video ads among Gen Z females might be the hobby of star chasing among young generations. According to Ma et al.(2024), young TikTok influencers are usually more popular than older influencers because Gen Z sees influencers as friends and role models, while influencers are unaware of their existence - this has become an indispensable aspect of personal emotional development. The influencers on TikTok are usually considered reliable and authentic and can have a considerable influence on their fans (Zniva & Weitzl & Lindmoser, 2023). They conclude that this type of content driven by peers and influencers resonates with young audiences, who are more likely to trust recommendations from people they perceive as similar to themselves.

The current work found that women are more susceptible to celebrity endorsements than men. This is aligned with the findings of Ahmed et al. (2019), who showed that young women are more likely to be influenced by celebrity endorsements. This gender difference in celebrity influence extends beyond social media. Female consumers had a more positive attitude towards celebrity-endorsed advertisements and stronger purchase intentions compared to male consumers (Wu et al., 2015). Further investigation by Wan et al.(2024) found that conformity to male celebrity-endorsed products has a significant positive effect on purchase intention among female college students. When male celebrities endorse products, female college students may perceive the quality and value of the products more positively due to conformity, resulting in a positive product attitude and purchase intention. These findings collectively suggest that the gender difference observed in our study regarding susceptibility to celebrity and influencer endorsements in TikTok short video advertisements is part of a broader trend in consumer behavior and advertising effectiveness.

Surprisingly, results showed that there is no huge difference between the data of Gen Z and that of people over 46 years old, including but not limited to screen time, time of social media usage, frequency of TikTok usage, frequency of clothes purchase, frequency of viewing short video ads, etc. The difference between items they purchase online is that people over 46 years old tend to buy more household products, but it is not surprising.

6. Conclusion

In conclusion, the factors of short video ads in TikTok influencing Gen Z females' purchasing decisions are apparent. TikTok usage is popular among all age groups. For most of the participants in our survey, visual appeal is the most crucial aspect of short video advertisements influencing their purchasing intentions. The result is also the same when filtering the data with only Gen Z people. One thing unique about Gen Zs is that they are more likely to be affected by the appearance of celebrities and influencers in ads compared with people over 46 years old. This phenomenon is more evident among Gen Z females.

Potential biases still exist in this study. The study's sample may be biased toward Generation Z women in specific populations or regions, potentially limiting the generalizability of findings. Reliance on self-reported data and subjective feedback introduces bias, particularly when assessing the impact of video creativity, authenticity, and viewer interaction on purchasing intent. Additionally, focusing solely on TikTok limits the understanding of advertising effects compared to other platforms, such as Instagram and YouTube, which have different user demographics, content types, and interaction dynamics. Future research should encompass a broader range of platforms to thoroughly assess the applicability and efficacy of digital marketing strategies, thereby offering robust insights for brand marketing.

Based on these findings, brands can enhance their advertising skills by focusing on essential ad factors to attract more consumers. Additionally, adapting rules for digital marketing platforms to enhance customer experience and advertisement effectiveness is critical as the market changes. In this fast-expanding digital market, firms can utilize these findings to heighten their competitiveness thus expanding their selling scale. Possible suggestions for firms might be improving advertisements' visual appeal and offering discounts to attract more consumers. For brands who reckon Gen Z females are their consumer targets, finding celebrities or influencers to advertise products will be much more efficient than those who do not.

Future investigations could enrich these findings by conducting more extensive surveys or interviews across vari-

ous geographic locations. Product-based analysis and gender-specific studies focused on this domain could provide beneficial results too. Furthermore, comparisons between TikTok and emerging competitors may also reveal evolving trends in mobile commerce.

Limitations

Potential limitations of this study include sampling bias inherent in online surveys, self-reporting biases, and the inability to establish causation due to the cross-sectional nature of the survey design.

Convenience sampling allows for fast data collection in large numbers. However, since the sample is not randomly selected, but is chosen by surveying close relatives, the sample can not be fully representative of the target population.

References

- Rezek, A. (n.d.). *How Brands Go Viral: An Analysis of Successful Brand Marketing on Tik Tok with Gen Z*. eGrove. https://egrove.olemiss.edu/hon_thesis/2645/
- Ahmad, A. H., Idris, I., Mason, C., & Chow, S. K. (2019). *The impact of young celebrity endorsements in social media advertisements and brand image towards the purchase intention of young consumers*. *International Journal of Financial Research*, 10(5), 54-65.
- Munoz, Tamara B., "TikTok's influence on Generation Z's Buying Habits and Behavior" (2022). *Global Strategic Communications Student Work*. 10. <https://digitalcommons.fu.edu/gsc/10>
- Hameed, F., Malik, I. A., Hadi, N. U., & Raza, M. A. (2023). *Brand awareness and purchase intention in the age of digital communication: A moderated mediation model of celebrity endorsement and consumer attitude*. *Online Journal of Communication and Media Technologies*, 13(2), e202309. <https://doi.org/10.30935/ojcm/12876>
- Vrtana, D.; Krizanova, A. *The Power of Emotional Advertising Appeals: Examining Their Influence on Consumer Purchasing Behavior and Brand–Customer Relationship*. *Sustainability* 2023, 15, 13337. <https://doi.org/10.3390/su151813337>
- 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*. *Frontiers in psychology*, 12, 791567. <https://doi.org/10.3389/fpsyg.2021.791567>
- Xiao, Y., Wang, L., & Wang, P. (2019). *Research on the Influence of Content Features of Short Video Marketing on Consumer purchase intentions*. *Proceedings of the 2019 4th International Conference on Modern Management, Education Technology and Social Science (MMETSS 2019)*. <https://doi.org/10.2991/mmets-19.2019.82>
- Zhang, Y. (2015). *The Impact of Brand Image on Consumer Behavior: A Literature Review*. *Open Journal of Business*

- and Management, 03(01), 58–62. Researchgate. <https://doi.org/10.4236/ojbm.2015.31006>
- Dodds, W.B., Monroe, K.B. and Grewal, D. (1991), “Effects of price, brand, and store information on buyers’ product evaluations”, *Journal of Marketing Research*, Vol. 28 No. 3, pp. 307-19.
- Zhong, M. (2020). *The relationship between brand image and purchase intention in luxury brands: a case study of Louis Vuitton*. Wkuwire.org. <https://wkuwire.org/handle/20.500.12540/473>
- Macheka, T., Quaye, E.S. and Ligaraba, N. (2024), “The effect of online customer reviews and celebrity endorsement on young female consumers’ purchase intentions”, *Young Consumers*, Vol. 25 No. 4, pp. 462-482. <https://doi.org/10.1108/YC-05-2023-1749>
- A. J., Araujo, C. J. G., Perater, K. a. S. D., & Quicho, A. M. V. (2022). Influence of TikTok video advertisements on Generation Z’s behavior and purchase intention. ResearchGate.https://www.researchgate.net/publication/358467845_Influence_of_TikTok_Video_Advertisements_on_Generation_Z’s_Behavior_and_Purchase_Intention
- Yousef, M., Dietrich, T., & Rundle-Thiele, S. (2021). *Social Advertising Effectiveness in Driving Action: A Study of Positive, Negative and Coactive Appeals on Social Media*. *International journal of environmental research and public health*, 18(11), 5954. <https://doi.org/10.3390/ijerph18115954>
- Alhabash, S., McAlister, A. R., Hagerstrom, A., Quilliam, E. T., Rifon, N. J., & Richards, J. I. (2013). *Between likes and shares: Effects of emotional appeal and virality on the persuasiveness of anticyberbullying messages on Facebook*. *Cyberpsychology, Behavior, and Social Networking*, 16(3), 175-182.
- Bhandari, U., Chang, K., & Neben, T. (2019). *Understanding the impact of perceived visual aesthetics on user evaluations: An emotional perspective*. *Information & Management*, 56(1), 85–93. <https://doi.org/10.1016/j.im.2018.07.003>
- Wu, Wann-Yih & Anridho, Nadia & Liao, Y.K.. (2015). *The role of associative and relational moderators on experiential branding*. *MakeLearn and TIIM Joint International Conference 2015*. 593-602.
- Ma, Y. (2024). *TikTok Influencers: How age affects popularity*. *SHS Web of Conferences*, 185, 03007. <https://doi.org/10.1051/shsconf/202418503007>
- Feng, Z., Al Mamun, A., Masukujjaman, M. et al. *Modeling the significance of advertising values on online impulse buying behavior*. *Humanit Soc Sci Commun* 10, 728 (2023). <https://doi.org/10.1057/s41599-023-02231-7>
- Mead, J. A., Richerson, R., & Li, W. (2020). *Dynamic right-slanted fonts increase the effectiveness of promotional retail advertising*. *Journal of Retailing*, 96(2), 282-296.
- Themer, A. (2021, November 30). *How does generation Z react to different advertising tactics used by social media influencers? How does Generation Z react to different advertising tactics used by social media influencers?* <https://shareok.org/handle/11244/332579>
- Liu, X., & Zheng, X. (2024). *The persuasive power of social media influencers in brand credibility and purchase intention*. *Humanities and Social Sciences Communications*, 11(1). <https://doi.org/10.1057/s41599-023-02512-1>
- Wan, J., Ma, H., Zhou, W., Qin, M., & Li, P. (2024). *The study of female college students’ consumer psychology mechanism toward male celebrity endorsed products: Tempted or coerced?*. *Heliyon*, 10(9), e30401. <https://doi.org/10.1016/j.heliyon.2024.e30401>
- TikTok made me buy it: The impact TikTok has on people’s purchasing decisions in the fashion industry*. (2023). *Floortje Levering*, 47.
- Zniva, R., Weitzl, W.J. & Lindmoser, C. *Be constantly different! How to manage influencer authenticity*. *Electron Commer Res* 23, 1485–1514 (2023). <https://doi.org/10.1007/s10660-022-09653-6>
- Kim, M., Kim, S., Lee, Y. (2010), “The effect of distribution channel diversification of foreign luxury fashion brand on consumers’ brand value and loyalty in Korean market”, *Journal of Retailing and Consumer Services*, Vol. 17 No. 4, pp. 286–293.
- Monroe, K. B. & Dodds, W. B (1985) “The Effect of Brand and Price Information on Subjective Product Evaluations,” In E. Hirschman and M. Holbrook (Eds.), *Advances in Consumer Research* (p. 85-90), Association for Consumer Research
- Bu, Y.; Parkinson, J.; Thaichon, P. (2022) *Influencer marketing: Homophily, customer value co-creation behaviour and purchase intention*. *J. Retail. Consum. Serv.*, 66, 102904. <https://run.unl.pt/bitstream/10362/129605/1/TGI0456.pdf>
- Alalwan, A. (2018). *Investigating the impact of social media advertising features on customer purchase intention*. *International Journal of Information Management*, 42, 65-77. <https://doi.org/10.1016/j.ijinfomgt.2018.06.001>