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Exploring the effects of audience and strategies used by beauty vloggers on behavioural intention towards endorsed brands

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Influencer marketing has become a potent and dynamic force in the digital age, changing the face of marketing in a variety of sectors. Even though social media influencers are still important in corporate communication strategies, there are still unresolved issues concerning what exactly makes an influencer powerful and how that influence impacts the behaviour of their followers. This research investigates the role of interactional elements used by beauty vloggers on the purchase intentions of consumers. In addition to the influence of beauty vloggers, there are inherent aspects that impact consumer purchasing behaviour. The present study also examines the impact of audience characteristics in forming consumer attitudes towards beauty vloggers that result in shaping favourable consumer behaviour. The study was carried out on individuals aged 16 to 45 years, who use social platforms regularly. Data obtained from 367 respondents from North India was analysed using structural equation modelling with the SmartPLS software. The outcome of the study demonstrates that interactional elements used by beauty vloggers impact the behaviour of consumers. The results also showed that perceived influence serves as a partial mediator in the relationship between interactional elements and consumers' purchase intention. Moreover, findings indicate that when consumers hold favourable attitudes towards beauty vloggers, the impact of self-concept and personality congruence enhancement on consumer behaviour is amplified, showcasing the mediating role of consumer attitude. The study's findings offer insights that can assist industrial marketers and cosmetic company practitioners in strategically selecting influencers to boost sales.

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Introduction

In an era marked by the pervasive influence of digital technologies, social media platforms have risen as influential tools shaping both consumer attitudes and marketing strategies (Lee and Watkins, 2016; Kim and Kim, 2021; Lee and Lee, 2022). The proliferation of social media users has revolutionised the way individuals engage with each other (Manchanda et al., 2022). Not only is there a notable surge in social media users, but there is also a significant growth in the number of content creators as well on different social media platforms (Ladhari et al., 2020). Once content creators amass a significant following, they are referred to as opinion leaders (Ki and Kim, 2019) or in general “influencers” or “social media influencers” (Lou and Yuan, 2019). Here, the term social media influencer (SMI) refers to an individual who serves as an independent representative having garnered significant virtual presence by sharing factual, cognitive, emotional, and often personalised insights using hashtags, texts, videos, etc (Garg and Bakshi, 2024; Freberg et al., 2011). Many SMIs create content in numerous categories, including lifestyle, gaming, food, travel, food, and technology (Sokolova and Kefi, 2020). However, those who precisely provide beauty content like cosmetic product reviews or product instructions are commonly identified as “beauty vloggers” or “beauty influencers” (Manchanda et al., 2022) or “beauty gurus” (Ladhari et al., 2020).

Consumers are currently consuming a greater volume of information from social media platforms compared to traditional media sources (Lee and Watkins, 2016). This seismic shift in media consumption and communication has created a dynamic landscape that calls for a deeper understanding of the relationships between influencers, their audiences, and consumer decision-making processes. Previous studies (Manchanda et al., 2022; Djafarova and Rushworth, 2017; Kim and Kim, 2021; Sokolova and Kefi, 2020) have shown the use of social media influencers as a promotional tactic to affect customer behaviour. Nevertheless, there have been concerns about the efficacy of vlogger-driven marketing (Sánchez-Fernández and Jiménez-Castillo, 2021; Hughes et al., 2019), prompting a necessity to improve understanding of the factors that contribute to its success.

A burgeoning body of literature has explored the impact of social media influencers’ credibility (Garg and Bakshi, 2024; Kim and Kim, 2021; Sokolova and Kefi, 2020), attractiveness (Ki and Kim, 2019; Torres et al., 2019; McGuire, 1985; Lee and Watkins, 2016; Ki and Kim, 2019) and importance of vlogger popularity (Manchanda et al., 2022; Ladhari et al., 2020). Yet, in this realm, a notable gap persists in our understanding, particularly concerning the establishment of relationships between consumers and social media influencers, and how this dynamic influences’ consumer purchasing behaviour. There is a scarcity of research emphasising the elements that facilitate beauty vloggers in fostering robust connections with their audiences, insights that marketers could leverage to promote their brands. Furthermore, past literature has shown the significance of alignment in personality between celebrity endorsers and products (Mishra et al., 2015; Xu and Pratt, 2018; Belanche et al., 2021). However, the importance of self-concept and congruence between the personality of the consumer and celebrity in shaping consumer behaviour has been overlooked. In this research, we aim to provide a comprehensive and timely exploration of the subject, shedding light on its relevance in the contemporary digital marketing landscape.

This study provides a comprehensive examination of the intricate mechanisms through which beauty vloggers exert influence over consumers by using four interactional elements (parasocial interactions, emotional attachment, meaning transfer, and informational value). These elements are used by beauty vloggers to increase their influential power over consumers

contributing to shaping consumers’ ultimate purchase intentions towards the brands endorsed by them. Subsequently, this research examines the theoretical aspects of consumers’ perception of beauty vloggers, specifically in regard to their self-concept and the impact of consumer-influencer personality congruence in forming a favourable consumer attitude towards beauty vloggers that leads to increased purchase intention.

This study is motivated by the recognition that despite the widespread use of influencer marketing in marketing campaigns (Lee and Watkins, 2016; Djafarova and Rushworth, 2017; Lou and Kim, 2019), there remains a considerable amount of knowledge still to be uncovered and comprehended about the fundamental processes that propel consumer behaviours within this domain. This study aims to analyse the relationships between interactional elements and audience characteristics, as well as the mediating variables, viz. perceived influence and consumer attitude, so as to understand the effect of vlogger marketing upon purchase intention. Influencer marketing is a multifaceted phenomenon that involves numerous factors, and this research seeks to shed light on a crucial aspect of it. Therefore, the main objectives of the present study are listed below:

O1: To investigate how interactional elements that beauty vloggers employ affect buyers’ inclination to make purchases.

O2: To investigate the effect of perceived influence in enhancing the relationship between interactional elements and the purchase intention of consumers towards the products/brands they endorse.

O3: To examine the effect of audience characteristics on the purchase intention of consumers.

O4: To investigate how consumer attitude influences the association between audience characteristics and buying intention.

This research uses social exchange theory (Homans, 1958) and self-congruence theory (Sirgy, 1985) to examine the influence of beauty vloggers on consumers’ inclination to purchase cosmetic products. This study demonstrates how interactional elements (parasocial interactions, emotional attachment, meaning transfer, and informational value) used by beauty vloggers, along with audience characteristics (self-concept and user-influencer personality congruence), affect the purchase intention by taking perceived influence and consumer attitude, respectively, as mediating variables. The conceptual model, illustrated in Fig. 1., delineates the intricate relationships within this framework and forms the basis for our analysis.

Theoretical background and hypothesis development

Interactional elements. Interactional elements refer to the many strategies that beauty vloggers use to enhance audience engagement and increase their following on social media platforms. The current research integrates parasocial interactions, emotional attachment, meaning transfer, and informational value as constituents of interactional elements to examine their influence on consumers’ purchase intention. The present research sought a more comprehensive understanding of consumer-influencer relationships by linking these interactional elements with social exchange theory to gain a deeper understanding of the persuasive mechanisms behind influencer marketing.

Social exchange theory. Several studies have used social exchange theory to evaluate the “exchange of activities” (Homans, 1958). Initially, social exchange theory focused on employment connections. This theory now applies to sociology, anthropology, and psychology (Cropanzano and Mitchell, 2005; Coco and Eckert, 2020). Given the broadening ambit of social exchange theory, its

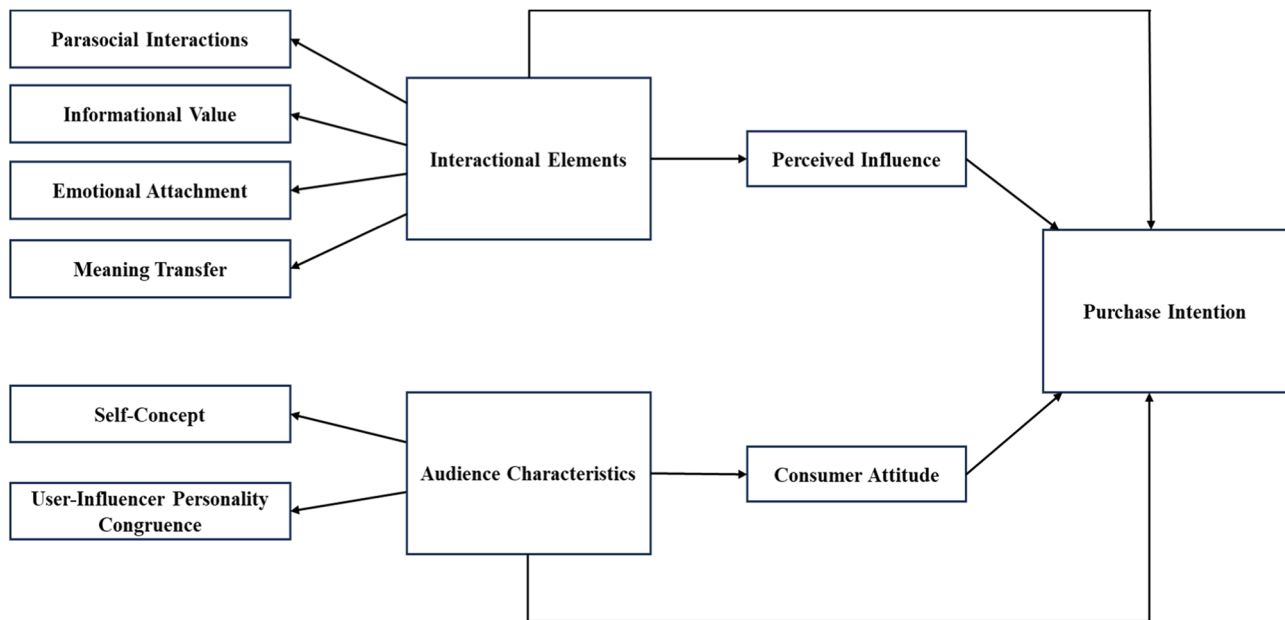


Fig. 1 Proposed conceptual framework using the interplay of various variables.

applicability extends to elucidating the dynamics inherent in the influencer-follower paradigm, along with the persuasive strategies employed by influencers to shape the behaviour of their followers. Effectively navigating resource exchange between stakeholders, namely influencers and followers in our investigation, engenders the cultivation of psychological bonds and incentivizes the perpetuation of their relationship (Ahmad et al., 2023). Both parties' profit from investing resources. Therefore, social exchange theory provides an appropriate theoretical foundation for beauty vlogging or influencer marketing. Cropanzano and Mitchell (2005) suggested that the exchange of resources encompasses both tangible and symbolic aspects, including elements like status, affection, services, information, monetary assets, and tangible goods within its purview. This philosophy uses cost and reward to build long-term partnerships (Kim and Kim, 2021). Beauty vloggers interact with their audiences on a daily basis. These interactions are usually one-sided in which vloggers talk about their personal lives, hence known as parasocial interactions (Horton and Wohl, 1956). Parasocial interactions have given beauty vloggers social influence as viewers rely on them for product suggestions and other useful information (Kim et al., 2020). In exchange their fans subscribe, like, share, and comment to show their love for their favourite beauty vlogger. With respect to social exchange theory, these are perceived as rewards for vloggers (Kim and Kim, 2021). From an economic standpoint, having more followers and views translates into financial benefits for the vlogger.

Status and power are also stressed in social exchange theory. Blau (1964) advanced this notion by introducing the theoretical framework of "exchange and power," which pertains to the capacity of one party to exert influence over another party, compelling the latter to undertake specific actions. Individuals take voluntary actions that are motivated by the returns which are expected for successful exchange behaviour. If the influential party provides informational content, the other party will become dependent on it (Emerson, 1976; Cook and Emerson, 1978). Beauty vloggers and their audience rely on each other for social interaction (Cook and Yamagishi, 1992). Interdependence between influencers and followers has a societal effect. Vloggers build viewer dependency and social influence by delivering helpful information and aesthetic content (Jiménez-Castillo and Sánchez-Fernández, 2019).

The principle of reciprocity can also find application within social exchange theory, which posits that social exchange benefits ought to be equitable (Chia et al., 2021). In other words, trading parties should get equal incentives (Cropanzano and Mitchell, 2005). Influencers update viewers on their lives, joyful and sad times, and new purchases to enhance participation that is adored by their audience and gets views on their profiles, demonstrating the reward's worth by developing an emotional attachment (Coco and Eckert, 2020). If the influencer posts stuff their audience likes, the engagement rate will rise until both sides reach a balance (Molm et al., 2007). Psychologically, reciprocity motivates parties to continue connections, building trust and changing behavioural attitudes (Kim and Kim, 2021). The process of exchange unfolds as a perpetual cycle wherein one party initiates an action, prompting reciprocal responses from the other party, thus initiating a fresh iteration of the exchange cycle (Ahmad et al., 2023). Additionally, the meaning transfer occurs when people embrace vloggers' attitudes and views via constant participation. Moreover, audiences relate some symbolic meanings like values and beliefs associated with vloggers (Holiday et al., 2021) with the products/brands that vloggers endorse (Torres et al., 2019). This helps viewers to perceive similar attributes in the brands/products hence resulting in increased purchasing intentions. Moreover, connections that are established based on the acknowledgement and mutual exchange of shared interests serve as fundamental components of communities (Holiday et al., 2021). Cropanzano and Mitchell (2005) also revealed that the reciprocity principle requires similar cultural expectations for successful social exchange between consumers and influencers. Taking into account these variables, this study seeks to investigate whether the distinctive elements employed by beauty vloggers can serve as mechanisms of social exchange, fostering long-lasting relationships that precipitate shifts in consumer attitudes toward the products endorsed by influencers. Drawing upon theoretical frameworks, particularly social exchange theory, this research posits that perceived influence and purchase intention represent efficacious outcomes resulting from the exchange of various activities (such as parasocial interactions, emotional attachment, meaning transfer, and informational value) between consumers and influencers.

Parasocial interaction (PSI) characterises the bond between celebrities and their audience (Horton and Wohl, 1956). In PSI, individuals engage with well-known figures such as actors, singers, and athletes, perceiving a sense of lively presence and a mutually beneficial relationship (Garg and Bakshi, 2024). The notion of emotional attachment pertains to forming a relationship that is distinct to a specific individual, which is established via the connection of emotions between individuals. It facilitates the sustenance of a durable connection between the involved parties, which may then be used to influence behaviour and foster a feeling of psychological proximity and accessibility (Thomson, 2006). Sánchez-Fernández and Jiménez-Castillo (2021) describe informational value as an important cue for influencing the behaviour. If viewers perceive that the information provided is accurate and true, and the information is enhancing their knowledge, it will improve the quality of communication resulting in higher perceived influence between the audience and vloggers. McCracken (1989), revealed the three stages of meaning transfer. In the first stage, a symbolic meaning is created in an individual based on the role assigned/done by the individual in the past. The same meaning is then transferred to the product he/she endorses. In the last stage, the same meaning is consumed by the customers when they make the purchase decision for the product. In relation to beauty vlogger endorsements, these four interactional elements (parasocial interactions, emotional attachment, informational value, and meaning transfer) are exchanged by vloggers for enhanced perceived influence and purchase intention for the brands/products they endorse.

There is currently a scarcity of research examining the collective influence of all interactional elements on purchase intention. Moreover, previous scholars have examined interactional components, especially meaning transfer (McCracken, 1989; Miller and Allen, 2012; Knoll et al., 2016) and parasocial interactions (Horton and Wohl, 1956; Rubin et al., 1985), within the realm of celebrity endorsement. However, with the advancement in technology, individuals are increasingly allocating a significant amount of their time to social media platforms. This is primarily attributed to these platforms to facilitate user engagement with vloggers for entertainment and information acquisition purposes. Therefore, we propose the following two hypotheses:

H1: Interactional elements used by beauty vloggers have a positive impact on followers' perceived influence.

H2: Interactional elements used by beauty vloggers have a positive impact on purchase intention.

Perceived influence and its mediating role. Social exchange theory posits the notion of exchange of activities which leads to behavioural change. In the effective communication process, it is important to establish connectedness between the two parties. Perceived influence refers to the subjective view held by the audience of an endorser, whereby they believe that the endorser has the ability to affect opinions, behaviours, or buying choices (Wang and Lin, 2011). In the field of consumer behaviour, if the listener feels that a message is delivered by an opinion leader or a renowned personality (famous beauty vlogger), it might change the perception of the listener about a particular product/brand (Jiménez-Castillo and Sánchez-Fernández, 2019). Moreover, the process of meaning transfer has the potential to increase the perceived level of influence, since it involves aligning the personal brand of the influencer with the values and goals of their audience. When individuals see the influencer as embodying their desired values or beliefs, they tend to be swayed by their suggestions (Holiday et al., 2021). This can also lead to increased purchase intention towards that particular product. By providing

valuable and useful information in an amusing and pleasing manner, beauty vloggers wield influential power over their audiences. Their audiences seek their advice before making a purchase decision (Sánchez-Fernández and Jiménez-Castillo, 2021). Moreover, in this technology-driven environment, consumers consider online information as more reliable than other sources (Lee and Lee, 2022; Manchanda et al., 2022). Also, previous literature witnesses the effectiveness of using influencer marketing for positive outcomes (purchase intention) (Djafarova and Rushworth, 2017; Sokolova and Kefi, 2020; Lou and Yuan, 2019). Hence, perceived influence is regarded as the outcome of many factors, including parasocial interactions, informational value, emotional connection, and meaning transfer. When influencers successfully develop these relationships, their perceived influence within their followers inherently grows.

Additionally, vloggers perform numerous interactional activities to increase familiarity and similarity with their audience which can result in establishing a long-term relationship between the two (Lee and Watkins, 2016; Lou and Kim, 2019). Vloggers share their personal lives on their social media handles to create an emotional bond which can be used to influence audiences' behaviour towards purchasing the recommended products/brands (Ladhari et al., 2020; Lee and Lee, 2022). Influencers are often seen as those who have significant influence and are considered opinion leaders within their respective domains. They play a crucial role in spreading genuine and trustworthy information about various products (Manchanda et al., 2022). When followers get knowledge about the advantages and characteristics of a certain product or service from an influencer, they have faith in, they become more educated and perhaps more inclined to make well-informed purchasing choices (Lou and Yuan, 2019; Sokolova and Kefi, 2020). Moreover, if followers see a congruence between the influencer's viewpoints and choices and their own beliefs and preferences, they may be inclined to adopt similar consumer behaviours (Choi and Rifon, 2012; Jiménez-Castillo and Sánchez-Fernández, 2019). Consequently, higher perceived influence can lead to higher intention to purchase the endorsed products/brands by the followers (Sánchez-Fernández and Jiménez-Castillo, 2021). By examining how interactional elements affect perceived influence and subsequently influence purchase intention, we can infer that perceived influence acts as a mediator between preceding factors and individual actions. Therefore, the researchers put forward the following two hypotheses:

H3: Perceived influence has a significant impact on buying intention.

H4: Perceived influence acts as a mediator in the association between interactional elements and buying intention.

Audience characteristics. The interactional elements employed by beauty vloggers determine consumers' behavioural outcomes. Additionally, an individual's notions of himself also frame their attitude towards a particular product/brand. This concept is explained by self-congruency theory, which is rooted in the theoretical framework of the self-concept (Plewa and Palmer, 2014). Sirgy (1982) has given two main dimensions of self-concept: actual self-concept and ideal self-concept. Actual self-concept is the perception that one holds about himself whereas ideal self-concept describes the aspirational image that one wants to embody. When the actual self-concept matches with the ideal self-concept, self-congruency is achieved (Sirgy, 1985). Self-concept is an intrinsic motivating factor that plays a vital role in framing a favourable attitude and marketing outcome (purchase intention). Also, self-concept helps in shaping the attitude towards influencers as it helps in identifying with influencers

(Choi and Rifon, 2012; Zogaj et al., 2021). For example, an individual who has a robust sense of self-identity as an environmentalist may have a greater propensity to adhere to and support influencers who advocate for sustainability and the adoption of eco-friendly behaviours. Hence buying the same things as influencers helps build a satisfying self-concept (Xu and Pratt, 2018). Moreover, the main proposition of self-congruency theory demonstrates that customers choose items or brands that align with their self-concepts. Consumers shape their self-image via brand purchases and consumption. Hence, we can say that self-concept describes audience characteristics. Initially, researchers have revealed the impact of self-concept with respect to celebrity endorsement (Choi and Rifon, 2012; Mishra et al., 2015). However, with the advancement in technology, a similar phenomenon can be observed in influencer marketing (Shan et al., 2019). Additionally, previous literature also supports the positive impact of self-concept towards the intention change especially in the field of tourism (Pradhan et al., 2023; Xu and Pratt, 2018). For checking the robustness of vlogger-led marketing, it is important that we should consider self-concept as one of the variables in this investigation.

Another sub-construct of audience characteristics is the user-influencer personality congruence. It is the congruency between the personality of consumers with that of the influencer (Belanche et al., 2021). Within the parameters of consumer behaviour, various studies have been conducted showing the congruence between brand personality and endorser personality and its effect on purchase intention (Mishra et al., 2015; Malodia et al., 2017; Tafheem et al., 2022). However, congruence between endorser and consumer personality is yet to be explored. Choi and Rifon (2012) reveal that if the congruency between the personalities of consumers and celebrities matches, it helps in framing behavioural changes as the customer is expected to evaluate the advertising more positively and express stronger intentions to make a purchase. Balabanis and Chatzopoulou (2019) also discovered similar findings, demonstrating that a higher degree of influencing power may be achieved when the personality of a blogger aligns with that of an information seeker. Moreover, a recent study undertaken within the domain of tourism literature reveals that visitors are inclined to adopt the attitudes and behaviours advocated by a celebrity endorser when they see a congruence between the endorser's personality and their own personality (Pradhan et al., 2023). Similarly, in the social media context, if there is congruency between the personalities of users and influencers, it can help in changing the consumer attitude towards influencers that further leads to changes in the behavioural outcome of the consumers (purchase intention). Additionally, this phenomenon is more effective in influencer marketing than celebrity endorsement as consumers perceive influencers as people "like you and me" (Mettenheim and Wiedmann, 2021). This is because, users see influencers as inspirational figures and aspire their lifestyle to be like them (Ki and Kim, 2019). Taking both self-concept and user-influencer personality congruence under the bracket of audience characteristics we propose the following two hypotheses:

H5: Audience characteristics have a positive impact in framing consumer attitudes towards beauty vloggers.

H6: Audience characteristics have a positive impact on purchase intention.

Consumer attitude and its mediating role. Attitude is the perception that one makes for others (Chetioui et al., 2020). If an individual creates an attitude towards a particular product/brand or even a person, it will last for a long time (Taillon et al., 2020). One's attitude has a significant role in determining their level of

attraction toward a specific object, thereby impacting their intent to acquire that product (Chanana, 2015). Prior research has demonstrated that celebrities possess a notable ability to attract the attention of consumers. Consequently, if consumers hold a favourable attitude towards these celebrities, it is likely to enhance their intention to purchase products endorsed by them (Zhu et al., 2019). This is due to the celebrities' role in heightening awareness about the endorsed products (Chanana, 2015). However, in this technologically advanced era, consumers have a tendency to align themselves more with influencers that possess common personality qualities, a lifestyle that aligns with their own, or similar tastes as compared to traditional celebrities (Djafarova and Rushworth, 2017). A greater level of congruence between influencers and prospective consumers indicates favourable attitudes towards influencers, leading to heightened intentions to make purchases (Zhu et al., 2019). Therefore, it is imperative to integrate consumer attitudes within the scope of the present study.

Additionally, the audience characteristics of consumers help in forming positive attitudes towards the vloggers resulting in increased purchase intention. Vloggers do various interactional activities to engage more with their audiences so that consumers can match their personalities with them. If the audience's self-image matches with the vlogger's self-image, consumers will form a favourable attitude towards vloggers (Zhu et al., 2019). Consequently, a positive match between their personalities creates an attitude towards a vlogger that further helps in increasing purchase intention (Taillon et al., 2020). Therefore, consumer attitude towards beauty vloggers acts as a mediating variable between audience characteristics and purchase intentions. Hence, we put forward the following two hypotheses:

H7: Consumer attitude has a positive impact on buying intention.

H8: Consumer acts as a mediator in the association between audience characteristics and purchasing intention.

Research methodology

Measurement Scale. The questionnaire was derived from multiple academic sources found in existing literature. The items for parasocial interactions are taken from the scale used by Lou and Kim (2019) and Lee and Watkins (2016). The items for emotional attachment are adapted from two studies (Choi and Lee, 2019; Ladhari et al., 2020). The items for informational value were drawn and adapted from three distinct research (Ki and Kim, 2019; Lou and Kim, 2019; Lee et al., 2014). The items for meaning transfer are self-constructed using the previous literature (Roy and Jain, 2017; Jain and Roy, 2016). Self-concept items are self-constructed and modified for our research using existing literature (Malhotra, 1981; Goñi et al., 2011). The items for user-influencer personality congruence originated from three different studies (Ki and Kim, 2019; Casalo et al., 2020; Belanche et al., 2021). The items pertaining to mediating variables, perceived influence and consumer attitude were taken and modified from two distinct researches (Chanana, 2015; Jiménez-Castillo and Sánchez-Fernández, 2019) respectively. Purchase intention is the endogenous variable and its items were generated using several researches (Jiménez-Castillo and Sánchez-Fernández, 2019; Meng and Wei, 2020; Lou and Kim, 2019). The indicators have been evaluated by employing a 5-point Likert Scale, where 1 indicates strongly disagree and 5 indicates strongly agree. Detailed information on all the indicators can be found in Appendix 1 (refer to additional information given in supplementary materials).

Sample of the study. This study focused on individuals who regularly watch videos created by beauty influencers on YouTube

or similar websites, to determine their likelihood of purchasing cosmetic products endorsed by these vloggers. Data collection for the investigation of the current study spanned between June 2022 and March 2023. The questionnaire was circulated electronically to individuals aged 16 to 45 who identify as consumers. Since the characterisation of such virtual consumers and determination of the exact user population is tough, convenience sampling was employed (Lee and Lee, 2022; Djafarova and Rushworth, 2017). Initially, 500 respondents from northern India were administered the survey. Subsequently, refined data came from individuals who underwent thorough examination, satisfying the criteria of

regularly following beauty influencers and actively consuming material from those influencers between 1 to 3 h every day. Ultimately, we obtained 367 responses, resulting in a participation rate of 73.4%. In Table 1 we provide an overview detailing the demographic details of the respondents.

Methods. SmartPLS 4.0 was used to analyse the final data using partial least square structural equation modelling (PLS-SEM). This strategy is excellent for complicated latent variables (Agyapong, 2021). The relationship between endogenous and exogenous variables is better understood by PLS-SEM, which combines factor analysis and regression (Sarstedt et al., 2017; Hair et al., 2020; 2019; 2017). Additionally, PLS-SEM is more effective when applied to distribution-free data and obviates the requirement for strict adherence to assumptions of multivariate normality. Interactional elements and audience characteristics are higher-order constructs (HOC), and PLS-SEM is more flexible in complicated models (Hair et al., 2020; 2019).

Statistical analysis

Assessment of lower order construct’s (LOC’s) measurement model. Reliability and validity are the main evaluation criteria for the measurement model. In relation to the repeated indicator approach that was applied, LOC and HOC represent the two divisions of the conceptual framework (Sarstedt et al., 2019). The validity and reliability pertaining to LOC has been examined first. All findings are presented in accordance with the stipulated protocols outlined in the PLS-SEM manual (Sarstedt et al., 2019; Hair et al., 2019; 2017). To ensure the reliability of a construct, it is recommended that the outer loadings of the prevailing reflective variables surpass the minimum value of 0.708 (Hair et al., 2020; 2017). Table 2 and Fig. 2 depict that most values exceed threshold values. We removed 1 indicator from self-concept (SC1), 1 indicator from consumer attitude (CA5), as well as 4 indicators from PSI (PARA INT.3,6,8,9) to improve the assessment framework. Similarly, Cronbach’s alpha remained within acceptable limits, i.e., 0.70–0.95. The values of composite reliability and

Table 1 Demographic details of respondents.

Respondents	Frequency	%age
Gender		
Female	166	45.23
Male	201	54.76
Region		
Delhi NCR	109	29.70
Haryana	83	22.61
Punjab	102	27.79
Chandigarh	73	19.89
Age of respondents		
Below 18	11	2.99
18 - 30	353	96.18
31-45	3	0.81
Social media platforms used by respondents		
Facebook	136	37.05
YouTube	340	92.64
Instagram	347	94.55
Snapchat	232	63.21
Twitter	124	33.78
Number of hours spent on social media		
Less than an hour	41	11.17
1-3 h	197	53.67
3-5 h	94	25.61
5 h and above	35	9.53

Source: Developed by authors.

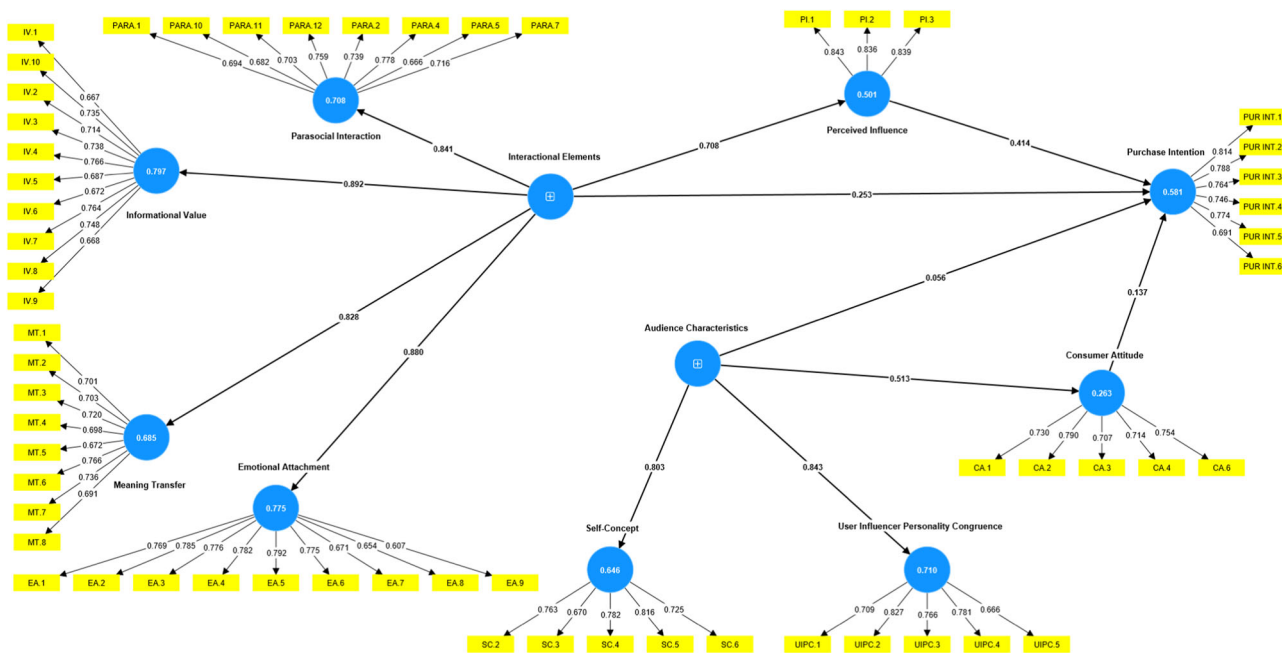


Fig. 2 Analysis of the conceptual model utilising SmartPLS. Source: Self-constructed using SmartPLS 4.0 version.

Table 2 Loc's assessment framework.

Variables	Indicators	Factor loadings	Alpha values	rho_a	rho_c	AVE
Parasocial interaction	PARA.1	0.694	0.866	0.869	0.895	0.516
	PARA.2	0.739				
	PARA.4	0.778				
	PARA.5	0.666				
	PARA.7	0.716				
	PARA.10	0.682				
	PARA.11	0.703				
Informational value	PARA.12	0.759	0.894	0.896	0.913	0.514
	IV.1	0.667				
	IV.2	0.714				
	IV.3	0.738				
	IV.4	0.766				
	IV.5	0.687				
	IV.6	0.672				
Meaning transfer	IV.7	0.764	0.860	0.861	0.891	0.506
	IV.8	0.748				
	IV.9	0.668				
	IV.10	0.735				
	MT.1	0.701				
	MT.2	0.703				
	MT.3	0.720				
Emotional attachment	MT.4	0.698	0.894	0.899	0.914	0.544
	MT.5	0.672				
	MT.6	0.766				
	MT.7	0.736				
	MT.8	0.691				
	EA.1	0.769				
	EA.2	0.785				
Self-concept	EA.3	0.776	0.807	0.812	0.867	0.567
	EA.4	0.782				
	EA.5	0.792				
	EA.6	0.775				
	EA.7	0.671				
	EA.8	0.654				
	EA.9	0.607				
User-influencer personality congruence	SC.2	0.763	0.806	0.812	0.866	0.565
	SC.3	0.670				
	SC.4	0.782				
	SC.5	0.816				
	SC.6	0.725				
	UIPC.1	0.709				
Perceived influence	UIPC.2	0.827	0.790	0.791	0.877	0.704
	UIPC.3	0.766				
	UIPC.4	0.781				
	UIPC.5	0.666				
Consumer attitude	PI.1	0.843	0.793	0.797	0.858	0.547
	PI.2	0.836				
	PI.3	0.839				
	CA.1	0.730				
Purchase intention	CA.2	0.790	0.857	0.860	0.893	0.584
	CA.3	0.707				
	CA.4	0.714				
	CA.6	0.754				
	PUR INT.1	0.814				
	PUR INT.2	0.788				
PUR INT.3	0.764					
	PUR INT.4	0.746				
	PUR INT.5	0.774				
	PUR INT.6	0.691				

Source: Self-constructed by the author.

Henseler's rho-A are above 0.70 indicating internal consistency in the proposed model (Hair et al., 2020; 2017). The (AVE) average variance extracted, which indicates the amount of variance in dependent constructs explained by independent

constructs, is assessed to determine convergent validity. The AVE values of all the constructs were above 0.50 (Hair et al., 2019; 2017; Sarstedt et al., 2017; Cohen, 1988), establishing the whole measurement model valuation.

The research next investigates discriminant validity to ensure the uniqueness of the constructs (Sarstedt et al., 2022). The Heterotrait-Monotrait (HTMT) ratio of correlation criteria is used to demonstrate discriminant validity for each component. According to the latest criteria, the liberal HTMT inference approach suggests that all HTMT ratio values should be below 1 (Garg and Bakshi, 2024). However, for more stringent criteria, the HTMT ratio should ideally fall between 0.85 (Henseler et al., 2015) and 0.90 (Gold et al., 2001). In our research, most measurements fall below acceptable standards, as demonstrated in Table 3.

Assessment of HOC’s measurement model. After investigating the assessment framework of LOC, the latent variable scores derived for the four sub-constructs relating to interactional elements and two sub-constructs of audience characteristics are integrated into the main dataset to examine the HOCs in the anticipated framework utilising the repeated indicator technique. Since the prospective framework model (as shown in Fig. 2) represents a Type 1 higher-order model, the repeated indicator technique is deemed suitable for measurement (Garg and Bakshi, 2024; Agyapong, 2021; Perez-Vega et al., 2018; Becker et al., 2012). The outcomes of the higher-order constructs are documented in Table 4. In the present study, there are two HOCs namely, interactional elements and audience characteristics. The Cronbach α for interactional elements is 0.884. The composite reliability (rho-c) and Henseler’s rho-a are 0.920 & 0.890 respectively. Audience characteristics have only two items, hence the Cronbach α value of 0.526 is justified (Nunnally and Bernstein, 1994). However, the value of composite reliability is 0.805 which establishes the internal consistency of the construct. The AVE value for both the higher-order constructs is above the threshold value of 0.5. In the proposed model, the path coefficients of LOCs serve as indicators for HOCs, serving as outer loadings for the HOC. In this model, outer loadings related to all sub-constructs exceed the acceptable threshold of 0.708 (Hair et al., 2020).

Next, we investigate the discriminant validity using the similar approach used in LOCs. Although most HTMT ratios are between 0.85 (Henseler et al., 2015) and 0.90 (Gold et al., 2001), the ratio between interactional elements and audience characteristics is over 0.90, hence a liberal approach is utilised. For doing so, confidence intervals for HTMT inferences are obtained using bootstrapping (Shiva et al., 2020; Hair et al., 2022). The HTMT value is 0.968, which is within the confidence intervals hence establishing uniqueness between the constructs. The results of HTMT ratios along with confidence intervals are displayed in Table 5.

Structural model assessment. Once the measurement model has been validated, the structural framework is assessed to ascertain the relationships between variables and to evaluate their predictive ability (Hair et al., 2017). Multicollinearity between constructs must be checked first. We evaluate each construct as a formative factor and examine the tolerance and VIF (Variance Inflation Factor) of the inner model and these measurements are found to be below 3, ensuring no construct multicollinearity issue (Shiva et al., 2020; Diamantopoulos, 2008). Subsequently, the coefficient of determination (R^2) was examined for every predicted latent variable. The R^2 value elucidates the inherent variance relating to predicted variables attributed to antecedent factors. Notably, the R^2 values for the dependent constructs, Consumer Attitude (0.266), Perceived Influence (0.507), and Purchase Intention (0.581), were found to exhibit moderate significance depicted by Fig. 2. and Table 6. In social sciences, R^2 0.20 or more is considered significant since we measure behaviour (Hair et al., 2017; Rasoolimanesh et al., 2017). Bootstrapping at 10,000 SmartPLS subsamples is done to assess path coefficient significance and relevance for hypothesis testing. The interactional elements and audience characteristics are HOCs, while the path coefficient of their sub-constructs serves as factor loadings as displayed in Fig. 3 (Shiva et al., 2020). Table 6 indicates that the majority of the values are statistically significant at the 5% level, thereby supporting hypotheses H1–H5 and H7. However, no

Table 3 Discriminant validity (LOC).

	i	ii	iii	iv	v	vi	vii	viii	ix
i. Parasocial interaction									
ii. Informational value	0.732								
iii. Meaning transfer	0.632	0.805							
iv. Emotional attachment	0.824	0.742	0.700						
v. Self-concept	0.419	0.474	0.483	0.443					
vi. User-influencer personality congruence	0.650	0.665	0.616	0.678	0.442				
vii. Perceived influence	0.617	0.776	0.813	0.702	0.427	0.617			
viii. Consumer attitude	0.701	0.799	0.851	0.708	0.441	0.585	0.826		
ix. Purchase intention	0.583	0.735	0.734	0.641	0.408	0.575	0.861	0.755	

Source: Calculated by authors.

Table 4 Assessment of HOC’s measurement model.

Constructs	Items	Factor loadings	α value	rho_a	rho_c	AVE
Interactional elements	Parasocial interaction	0.835	0.884	0.890	0.920	0.741
	Informational value	0.888				
	Meaning transfer	0.850				
	Emotional attachment	0.869				
Audience characteristics	Self-concept	0.757	0.526	0.560	0.805	0.674
	User-influencer personality congruence	0.880				

Source: Self-constructed by authors.

Table 5 Evaluation of discriminant validity for HOC.

	i.	ii.	iii.	iv.	v.
i. Interactional elements					
ii. Audience characteristics	0.968 (0.861; 1.101)				
iii. Perceived influence	0.844 (0.775; 0.906)	0.786 (0.652; 0.924)			
iv. Consumer attitude	0.888 (0.829; 0.942)	0.775 (0.632; 0.919)	0.826 (0.720; 0.918)		
v. Purchase intention	0.783 (0.714; 0.846)	0.743 (0.611; 0.886)	0.861 (0.782; 0.935)	0.755 (0.660; 0.836)	

Source: Calculated by authors.

Table 6 Assessment of Structural model and hypothesis testing.

	β -value	Sample mean	Standard deviation	t-statistics	p-value
Direct effect					
Interactional elements > Perceived influence	0.712	0.713	0.030	23.507	0.000*
Perceived influence > Purchase intention	0.411	0.413	0.070	5.893	0.000*
Interactional elements > Purchase intention	0.257	0.255	0.080	3.209	0.001*
Audience characteristics > Consumer attitude	0.516	0.518	0.049	10.496	0.000*
Consumer attitude > Purchase intention	0.134	0.136	0.067	1.988	0.047*
Audience characteristics > Purchase intention	0.055	0.055	0.057	0.972	0.331*
Indirect effect					
Interactional elements > Perceived influence > Purchase intention	0.293	0.294	0.052	5.624	0.000*
Audience characteristics > Consumer attitude > Purchase intention	0.069	0.071	0.036	1.904	0.057**
	R²		Adjusted R²		SRMR
Perceived influence	0.507		0.506		0.063
Consumer attitude	0.266		0.264		
Purchase intention	0.581		0.576		

Source: Self-calculated by authors.
 $p \leq 0.05^*$; $p \leq 0.10^{**}$.

significant explicit relationship was found between audience characteristics and purchase intention, hence rejecting H6 ($\beta = 0.055$, $t = 0.972$, $p = 0.331$). The present study employs Standardised Root Mean Square Residual (SRMR) for evaluating the fitness of the model, which cannot exceed 0.08. The SRMR measurement for the current study is 0.063, hence indicating sufficient explanatory power of the model (Henseler et al., 2016). Table 6. lists all p -values, path coefficient values, t -statistic values, and SRMR values.

To test model predictive relevance, Q^2 predict values are computed. The Q^2 predict values of endogenous variables consumer attitude (0.259), perceived influence (0.503), and purchase intention (0.465) are larger than 0, establishing predictive relevance. Moreover, for estimating predictive error metrics for endogenous variables' indicators, PLSpredict uses tenfold sample-based predictions (Shmueli et al., 2016). Table 7 shows that Q^2 predicted values for each indicator are less than 0. RMSE (Root mean square error) measurements are assessed to determine the model's predictive relevance as errors are symmetrically distributed. Most of the items yield fewer prediction errors in the PLS model than in the linear model, resulting in moderate predictive relevance of the model (Singh and Bala, 2020; Shmueli et al., 2019).

Analysis of mediating variables. The results suggest that confirming Hypotheses 1 and 3 substantiates the function of perceived influence as a mediator in linking offers interactional elements to buying intention. In the light of empirical evidence supporting Hypothesis 2, a comparative investigation of interactional elements' direct and indirect effects on purchase intention is necessary. The study found a β -value of 0.257, establishing a

direct linkage between interactional elements and consumer purchasing intention. Moreover, perceived influence mediation increases β to 0.292 (Hypothesis 1 * Hypothesis 3: 0.712*0.411). These results reveal interactional elements directly affecting buying intention. However, this impact is increased when perceived influence mediates, showing a complementary partial mediation effect (Zhao et al., 2014; Garg and Bakshi, 2024). In the case of audience characteristics, acceptance of H5 and H7 indicated a mediation effect. However, rejection of H6 revealed no explicit relation between audience characteristics and consumer purchasing intention ($p = 0.331$), indicating the case of full mediation (Zhao et al., 2014).

Discussion

The present study aims to examine the combined impact of interactional elements used by beauty vloggers and audience characteristics on purchase intention using two mediating variables. The findings obtained from the application of PLS-SEM support almost all the hypotheses (H1–H5, H7, H8) except one (H6). The outcomes of the study indicate that interactional elements used by beauty vloggers help in creating buying intention for the merchandise used/promoted by beauty influencers. Additionally, empirical evidence does not suggest a strong linkage between audience characteristics and purchase intention. The extensive literature suggests that consumers with a strong self-concept or high degree of congruence with an influencer's personality have a higher chance of purchasing merchandise endorsed by the said influencer (Zogaj et al., 2021; Mishra et al., 2015; Choi and Rifon, 2012), this finding may seem counter-intuitive. This shows the complexity of consumer buying behaviours.

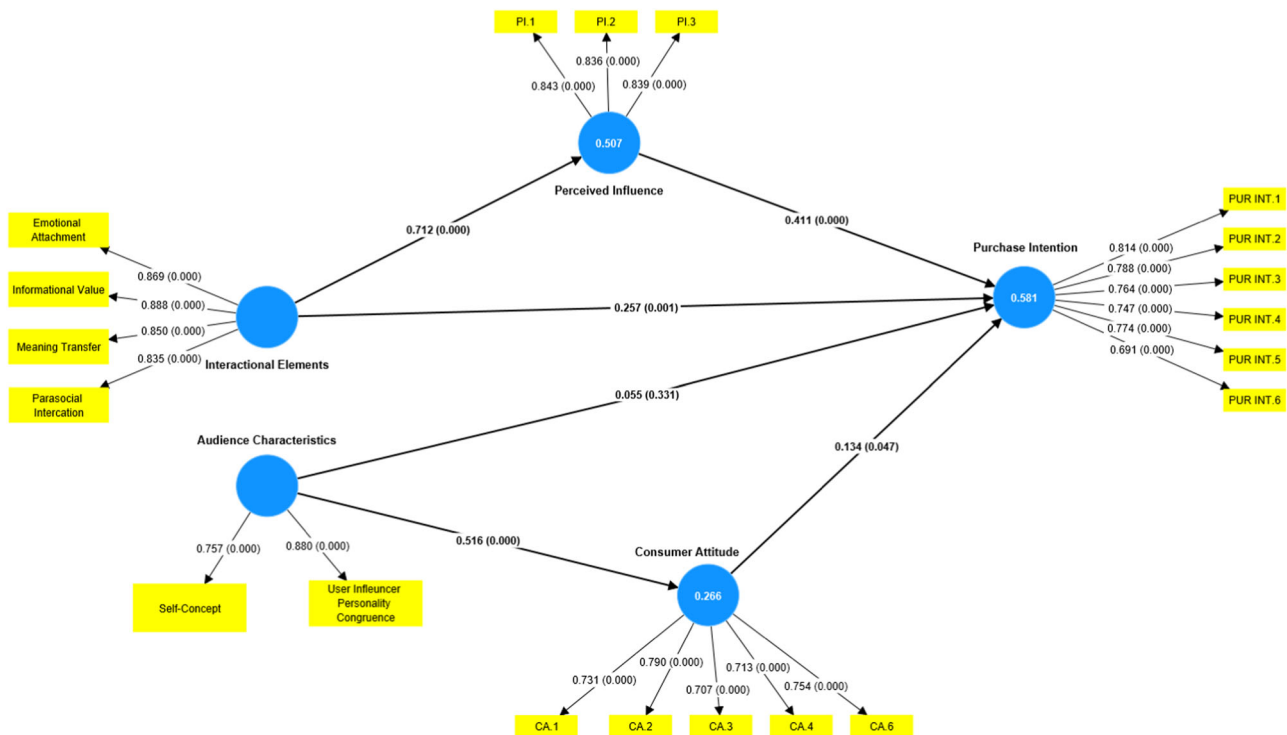


Fig. 3 Analysis of structural model and statistical relationships between variables. Source: Self-constructed using SmartPLS 4.0 version.

Table 7 PLSPredict.			
	Q ² Predict	RMSE (PLS)	RMSE(LM)
PUR. INT.1	0.335	0.792	0.799
PUR. INT.2	0.251	0.830	0.843
PUR. INT.3	0.268	0.793	0.796
PUR. INT.4	0.243	0.798	0.801
PUR. INT.5	0.302	0.729	0.723
PUR. INT.6	0.219	0.794	0.792

Source: Self-calculated by authors.

The present research used social exchange theory to explain influencer marketing dynamics. The application of this theory helps us understand how two parties interact with each other by exchanging perceived costs and benefits (Kim and Kim, 2021). According to social exchange theory, people associate and interact with the anticipation of getting reciprocal advantages in exchange for their own efforts. In relation to influencer marketing, the aforementioned theoretical framework postulates that customers actively interact with influencers with the expectation of deriving value or advantages, especially in the form of entertainment and knowledge. The nature of the relationship established between influencers and their followers is shaped by the ongoing process of exchange and the mutually obtained benefits. In instances where a sequence of exchanges occurs, discerning the specific exchange that precipitated the formulation of a robust relationship becomes notably challenging. The present study used four sub-constructs of interactional elements namely, parasocial interactions, emotional attachment, meaning transfer, and informational value. The results reveal that all four sub-constructs have almost similar empirical impacts. PSI was formerly used by media outlets including TV and radio and media consumers (Horton and Wohl, 1956). Similarly, meaning transfer was initially studied from a celebrity endorsement’s perspective. However, with the rise of social media and technology, influencers have

become the new reference group for consumers with whom they can identify themselves more easily as compared to traditional celebrities. Hence, PSI and meaning transfer have expanded beyond conventional media as beauty vloggers build an influential, illusionary relationship with their audience. Moreover, the analysis underscores the significance of parasocial interactions in influencer-audience dynamics, fostering reciprocity. Social exchange theory suggests that followers may reciprocate the attention and engagement offered by influencers by valuing and adopting their recommendations, thereby amplifying the perceived influence of the influencer towards the brands endorsed by them. Furthermore, meaning transfer emerges as a salient mechanism through which influencers enhance their perceived influence by associating products or brands with positive attributes or values. Influencers have unique identities and personal brands that are constructed based on their beliefs, lifestyles, and areas of expertise (Holiday et al., 2021). When a brand partners with an influencer, its objective is to capitalise on the favourable meanings linked to the influencer’s character and then convey those meanings to the products. Social exchange theory posits that individuals are motivated to maintain relationships that enhance their self-image or social status. When followers perceive that using a product endorsed by their favourite beauty vlogger aligns with their desired identity or values, they are more likely to adopt the product, thereby reinforcing the influencer’s authority and influence. This phenomenon underscores the power of influencers not only to shape consumer preferences but also to influence broader cultural narratives and norms through the products and brands they endorse. Emotional attachment and informational value also play a vital role in creating influential roles for beauty vloggers. Sánchez-Fernández and Jiménez-Castillo (2021) revealed the significant impact of informational value and emotional attachment in creating a perceived influence on consumer’s buying intention, hence signifying the role of perceived influence as a mediator. Additionally, they also showcased the interdependence between influencers and their followers, examining it through the lens of social exchange theory. They

found that followers are likely to reciprocate favourable thoughts, emotions, and actions towards the brands/products suggested by influencers when they perceive a benefit from their connection with the influencer. Hence, social exchange theory asserts that consumers need to acknowledge the importance of informational value for creating trust and emotional attachment in online communities. These connections are established and nurtured by continuous, interactions that revolve around meaningful shared values (Holiday et al., 2021). Overall, the insights gleaned from this study highlight the multifaceted nature of perceived influence in influencer marketing, with parasocial interactions, emotional attachment, meaning transfer, and informational value each playing distinct yet interconnected roles in shaping followers' perceptions of influencers' authority and influence. By elucidating these mechanisms through the theoretical framework of social exchange theory, this study offers valuable insights for marketers seeking to leverage influencer relationships to drive consumer behaviour and brand engagement in an increasingly competitive digital landscape.

Another antecedent proposed in the current study is audience characteristics, consisting of two sub-constructs namely, self-concept and user-influencer personality congruence. The study examined the impact of audience characteristics on purchase intentions using self-congruency theory. The results demonstrate that there is no significant direct relationship between audience characteristics and purchase intention. Previous literature also supports the connotation that there is no direct impact of self-concept and user-influencer personality congruence on consumer behaviour (Zogaj et al., 2021; Pradhan et al., 2016; Choi and Rifon, 2012). However, the findings reveal that there is a significant indirect relationship between audience characteristics and purchasing intention using consumer attitude. When customers develop a favourable perception of influencers, it reduces communication barriers between the two parties. This phenomenon leads to an increased intention to make purchases, as consumers tend to emulate the actions of their role models with whom they see a sense of likeness (Mettenheim and Wiedmann, 2021). Thus, it bridges the gap between audience characteristics and purchase intention. Additionally, if consumers have favourable attitudes towards beauty vloggers, the impact of self-concept and personality congruence affects consumer behaviour, hence showing the satisfying mediating role of consumer attitude. The results of the present study are in line with the study conducted by Pradhan et al. (2023). Overall, the audience's self-concept and the congruence between the personality of the vlogger and that of the audience indirectly influence their purchasing decisions. By identifying with the vlogger's personality and finding alignment with their own self-concept, consumers are more likely to form a favourable attitude towards them such that they trust the vlogger's recommendations and get influenced to purchase the endorsed products.

Implications, limitations, and future research directions

Theoretical contribution. This investigation has produced noteworthy intellectual insights. Using 2 independent theoretical frameworks, i.e., social exchange and self-congruence, to demonstrate the reciprocal influence of the two frameworks on customers' buying intention. Previous academicians have used the credibility model (Djafarova and Rushworth, 2017), the source attractiveness model (Kim and Kim, 2021), the elaboration likelihood model of persuasion (Sokolova and Kefi, 2020), persuasion knowledge (Myers et al., 2024), uses and gratification theory (Dolan et al., 2016), and many others to show the effect of influencer mechanism on consumer behaviour. However, the current study is the first that has used social exchange theory in

the context of interactional elements used by beauty vloggers. The rise of beauty vlogger marketing in digital spaces necessitates an extension of social exchange theory to incorporate the dynamics of online interactions. While traditional applications of social exchange theory focus on face-to-face exchanges, the prevalence of influencer-follower interactions mediated through digital platforms calls for a nuanced understanding of how digital interactions influence reciprocity and perceived influence (Ahmad et al., 2023). Consequently, this study makes a valuable contribution to the existing literature on the emerging phenomenon of influencer marketing. Secondly, the application of social exchange theory to influencer marketing could benefit from a deeper examination of the evolving power dynamics between influencers and followers. Influencers often wield significant power over their audiences due to their persuasive abilities and large followings. Understanding how these power dynamics fluctuate over time and in response to factors such as content authenticity, engagement strategies, and brand partnerships could enrich social exchange theory's explanatory power in the context of influencer marketing. Third, the cultural and contextual factors shaping influencer marketing relationships present opportunities for extending social exchange theory. While the theory primarily emphasises individual-level exchanges within dyadic relationships, influencer marketing operates within broader cultural and contextual contexts that influence interactions and perceptions. Modifications to social exchange theory could involve integrating cultural norms, societal values, and platform-specific dynamics to better understand the complexities of reciprocity and perceived influence in influencer marketing relationships across diverse cultural and contextual settings. Fourth, the study highlights the need to examine long-term relationship dynamics in influencer marketing. While social exchange theory focuses on short-term exchanges and transactions, influencer marketing campaigns often aim to cultivate long-term relationships between influencers and followers. Future research could explore how social exchange processes unfold over time within these sustained relationships, including factors such as loyalty, commitment, and relationship maintenance strategies employed by influencers and brands. Fifth, the previous literature has only shown the effectiveness of credibility and its direct and indirect effect on consumer behaviour, however, the present study emphasizes the role of audience characteristics, particularly self-concept and user-influencer personality congruence, in influencing customer attitudes that lead to purchase intention. This approach offers a more intricate theoretical framework for the impact of the congruence between an individual's self-identity and an influencer's image on consumer decision-making. Another notable theoretical contribution is the proposition for the incorporation of mediating variables, specifically consumer attitudes, into the framework of self-congruency theory. While traditional self-congruency theory emphasizes the explicit linkage between audience characteristics and buying intention, our findings reveal a significant indirect pathway mediated by consumer attitudes towards beauty vloggers. This suggests that the effect of audience characteristics on buying intention is not solely driven by direct alignment with influencer personality traits but is also mediated by consumers' perceptions and attitudes towards the influencers. Therefore, future researchers should explore the importance of consumer attitudes more extensively within the framework of self-congruency theory to gain a deeper understanding of the mechanisms driving consumer behaviour in influencer marketing contexts.

Practical implications. In addition to theoretical implications, this study also holds practical significance. First, owing to the increasing usage of social media and absorbing more online

content, the study provides an alternative to traditional celebrity endorsers. Beauty vloggers are regarded as opinion leaders and consumers relate more with them as compared to traditional celebrities. Second, the results of this research provide a valuable understanding of the process of influencer selection in practical contexts. Marketers can identify influencers whose self-concept and personality qualities coincide with their intended target audience, hence augmenting the authenticity and efficacy of influencer marketing efforts. Third, the results reveal the importance of meaning transfer. This study can assist marketers in making informed decisions regarding investment in beauty vloggers whose values and beliefs align with their products, thereby enhancing customer consumption. Fourth, the current study underscored the significance of emotional attachment. Consequently, marketers should refrain from solely relying on metrics such as follower count, likes, and comments to gauge the popularity of influencers. Instead, they should prioritise investing in influencers who possess the ability to forge emotional connections with their audience, thereby enhancing the persuasive effectiveness of their followers. Fifth, the primary objective of influencer marketing is to generate revenue via increased sales. The purchasing intent of customers may be favourably influenced when they possess a favourable attitude towards an influencer and the products/brands they advocate. Consumers may have a greater propensity to experiment with or buy products that are promoted by influencers whom they admire. This enhances the usage of influencer marketing. In addition to marketers, this research incorporates interactional elements that promote the establishment of likeness and familiarity with their target audiences. Consequently, the current study has potential value for emerging influencers seeking to enhance their engagement rates across various social media platforms.

Limitations and future research directions. Despite our diligent endeavour, the researchers were incapable of eradicating all research flaws. This research is subject to sample-based limitations, as is common in empirical studies. Due to the demographic patterns of beauty vlogger viewership, with relatively few viewers over the age of 45, the majority of data was gathered from individuals aged 18 to 30 years old. Future studies might compare influencer marketing's effects on different age groups. Second, the data used in this research originated from a developing nation like India. However, it's important to note that findings may differ across diverse countries due to cultural variations, which could impact the characteristics of the target audience. Third, this study only examined beauty vloggers' interactional aspects to persuade customers, as well as audience factors influencing consumer attitudes about vloggers and their impact on purchase intention. However, future researchers may examine how sponsored marketing and the disclosure hashtag affect customer perception. This study was limited to the product categories pertinent to beauty vloggers only, primarily cosmetics. Future researchers may apply the vlogger marketing approach to health, gaming, food, and travel vlogging.

Data availability

The dataset collected and/or analysed during the present study is not publicly accessible due to confidentiality agreements with participants. The participants had furnished personal data and agreed to answer probing questions in the questionnaire upon the precondition that none of their data would be shared subsequently, except in case of extremely reasonable requirements. Hence, the dataset can be obtained from the corresponding author upon reasonable request.

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Author contributions

MG conceived and designed the research, conducted data collection and analysis, drafted the manuscript, analysed and interpreted the data, and participated in critical revisions.

AB significantly contributed to the research design, provided crucial intellectual input, participated in manuscript writing, and played a key role in revisions. Both authors approved the final version of the manuscript for submission.

Competing interests

The authors declare no competing interests.

Ethical approval

The procedures used in this study adhere to the principles of the Declaration of Helsinki. The corresponding author obtained permission to conduct the study. The research was carried out in accordance with the Helsinki Declaration guidelines and has been reviewed by the Ethical Committee of Thapar Institute of Engineering & Technology (TIEC/EC/2022-16). Informed consents were obtained from participants prior to the survey to ensure respondents had a good understanding of the study objectives.

Informed consent

The survey was conducted upon informed consent previously gained from participants, who agreed to provide data for data analysis for this study. We informed each respondent of their rights and to safeguard their personal information.

Additional information

Supplementary information The online version contains supplementary material available at <https://doi.org/10.1057/s41599-024-03133-y>.

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