



Impacts of influencer attributes on purchase intentions in social media influencer marketing: Mediating roles of characterizations

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ABSTRACT

Social media influencer marketing has recently received significant attention. Many studies have explored the parasocial relationship (PSR) formation between influencers and followers. PSR has not often been weighted against other widely used relationship marketing constructs, despite the multitude of PSR studies. This study developed a research model based on the theory of persuasion, which was constructed to investigate the relative weight of the PSR. The study considered three personal attributes (attitude homophily, physical attractiveness, and social attractiveness) and three characterizations (trustworthiness, perceived expertise, and PSR) as antecedents of purchase intention. Data were collected through a survey of respondents who bought products/services after watching YouTube advertisements made by influencers. The study found that PSR had a significantly positive impact on purchase intentions relative to other characterizations and that PSR was significantly related to the three personal attributes. In addition, PSR formation was significantly influenced by consumers' perceived influencer types. The survey showed that social media influencer marketing strategies need to be fine-tuned based on personal attributes, characterizations, and influencer types. This paper discusses the theoretical and practical implications of these findings.

1. Introduction

As user-generated content proliferates on social media, users can become leading creators by actively producing and uploading personal stories and reviews of products and services. These users are referred to as “social media influencers” (Freberg et al., 2011; Khamis et al., 2017; Lim et al., 2017). Social media influencers have attracted much attention from companies and brands, not only as potential marketing channels but also as social relationship assets with whom they can collaborate. This can lead to sustainable relationships based on marketing and sales (Augustine, 2019).

According to *Business Insider*, annual business investment in influencer marketing will reach \$15 billion by 2022 (Schomer, 2019). A growing number of brands that recognize this new opportunity to reach their target markets are collaborating with social media influencers. The role they play in inducing consumers' purchasing behavior is critical and is greater than the role played through traditional marketing channels. The number of influencer marketing-related studies has increased recently (Kim and Song, 2016; Ferchaud et al., 2018; Hwang and Zhang, 2018; de Bérail et al., 2019; Munnukka et al., 2019).

The influencer phenomenon is not new in marketing. In traditional media, famous celebrities were the primary influencers of consumer behavior long before the social media frenzy (Erdogan, 1999). As people imitate and follow celebrities, the latter exerts a strong influence by directly or indirectly advertising products and services on traditional media channels, such as TV and newspapers (Agrawal and Kamakura, 1995). Consumers believe that celebrities are more trustworthy than salespeople hired by producers (Parsons, 1963). Moreover, most celebrities are considered providers of expert-like opinions because the media constructs their characters (Joseph, 1982). Trustworthiness and perceived expertise seem to define the credibility of traditional influencers.

In addition to perceiving trustworthiness and expertise, consumers also form pseudo-social relationships with celebrities. This phenomenon is similar to the way people develop feelings of intimacy toward media personalities after repeated exposure (Alperstein, 1991; Auter, 1992; Stephens et al., 1996). This process, called the “parasocial relationship” (PSR), has characteristics similar to those of a bond formed through direct social interactions over time (Horton and Wohl, 1956). Studies have found that PSR is an enduring relationship formed through social

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attractiveness, such as friendship. This relationship develops even though no physical social interactions occur (Rubin and Perse, 1987; Lee and Watkins, 2016; Sokolova and Kefi, 2020). Although they would not be able to communicate similarly in real social relations, consumers perceive celebrities as intimate conversational partners because of this PSR (Horton and Wohl, 1956).

Social media influencer marketing is similar to classic celebrity endorsements in traditional mass media, except that the interactions are more content-driven (Lou and Kim, 2019). The degree of engagement with the audience is slightly higher than that of traditional celebrity endorsement (Arora et al., 2019). The traditional approach is based primarily on one-way broadcasting communication, in which followers are usually unable to respond to the messages of celebrities. By contrast, social media influencers build the PSR with their followers through limited two-way communication, such as via comments and responses. This is still regarded as PSR because two-way communication is limited and would not occur as extensively or deeply in a real social relationship. Hence, social media influencers constitute a distinct group (Belanche et al., 2020).

As social media proliferates, the roles of influencers are becoming increasingly diverse because digital technologies have increased the complexity of the customer environment. To match this complexity, companies must consider not only existing criteria (i.e., sales, profits, growth rate, customer satisfaction, and loyalty) but also new marketing strategies and value propositions for customers (e.g., value, brand, relationship equity; Kannan and Li, 2017). To address this situation, a new definition of social media marketing that considers the strategic level has been proposed. This definition describes social media marketing as an interdisciplinary and cross-functional process that uses social media to achieve organizational goals by creating value for stakeholders (Felix et al., 2017). Recent studies have also described the characteristics and narrative strategies of social media influencers (Harrigan et al., 2021; Zhou et al., 2020).

However, metrics that can be used to realize this diversified social media marketing strategy are not well developed. The validation scales used in public communication research do not sufficiently capture the increasingly complex nature of social media (Dwivedi et al., 2021). Moreover, there is no accurate way to ascertain the degree to which motivations for social media use depend on users' cultural backgrounds (Chiu and Huang, 2015; Shen et al., 2010). In addition, the characteristics of diversified social media platforms have not been adequately examined in terms of marketing effectiveness (Kannan and Li, 2017; Kapoor et al., 2018).

This study focuses on the role of social media influencers in video advertising (on YouTube), which is becoming increasingly influential as a social media marketing strategy. YouTubers illustrate the impact of PSR, which is thought to play an important role in explaining marketing effectiveness, but has not been sufficiently weighed in the research. Specifically, this study (i) validates the PSR of social media influencers that may drive followers' purchase intentions; (ii) determines the personal attributes of influencers relating to the PSR; and (iii) examines the impact of "followers" considered as control variables on the formation and influence of PSR.

This study provides important theoretical and practical contributions by examining the importance of PSR in measuring the effectiveness of social media influencer marketing through video advertising on YouTube. On a theoretical level, the conceptual research model derived from this study reveals the importance of PSR in social media marketing and its relevance to influencer characteristics. This clarifies the position of the PSR in the model setting when considering social media marketing strategies. In practical terms, the results provide insights that can help companies optimize their social media marketing strategies using influencers, taking into account the PSR perspective. In addition, social media influencers themselves may optimize their own promotion strategies based on the study's insights into PSR.

This study adapts and validates the theory of persuasion to explain

the mechanism behind social media influencer marketing by comparing the strength of PSR to that of other widely examined factors in social media marketing. Influencing people to purchase products is a form of persuasion, which is a process aimed at changing a person's attitude or behavior (Dotson and Hyatt, 2000). Studies on persuasion have found that the personal attributes and characterizations of the message source are more important as cues than are the arguments themselves (Mosler, 2006; Petty, 2013). The followers of social media influencers sense the influencer's attributes and characterize the influencers based on their assessments of them. Persuasion theory posits that this characterization in the minds of followers influences purchase intentions.

The remainder of this paper is organized as follows. Section 2 provides a literature review of social media influencer marketing. Section 3 presents the study's theoretical background, development of the research model, and hypotheses. Section 4 describes the methods, measures, and data employed in this study. Section 5 presents the results of the measurement model, hypothesis testing, and multi-group analysis of the control variables. Section 6 provides an in-depth discussion of the results, explains the theoretical and practical implications, describes the study's limitations, and suggests future research directions. Finally, Section 7 concludes the study.

2. Literature review

2.1. Social media marketing

Digital technologies have increased the complexity of the customer environment. Digital and social media marketing allows companies to achieve their marketing objectives at a relatively low cost (Ajina, 2019). The decline of traditional communication channels and societal reliance on brick-and-mortar operations require businesses to seek best practices using digital and social media marketing strategies to retain and increase market share (Schultz and Peltier, 2012; Naylor et al., 2013). Companies need to consider not only existing marketing strategies (i.e., sales, profits, growth rate, customer satisfaction, and loyalty) but also new marketing strategies and value propositions for customers (e.g., value, brand, and relationship equity; Kannan and Li, 2017). To adapt to these circumstances, a new definition of social media marketing has been proposed, according to which it is considered an interdisciplinary and cross-functional process that uses social media (often in combination with other communication channels) to achieve organizational goals by creating value for stakeholders (Felix et al., 2017). Regarding the new strategic definition, social media marketing encompasses an organization's decisions about social media marketing scope (ranging from defenders to explorers), culture (ranging from conservatism to modernism), structure (ranging from hierarchies to networks), and governance (ranging from autocracy to anarchy). One new aspect of this process is social capital, which is the social, non-monetary value of consumers (community members) created by relational exchanges in the community; this involves behaviors such as advocacy, openness, and honesty (Sanz-Blas et al., 2021). From an organizational perspective, it has been argued that research on social media should move past the conventional dyadic view of the relationship between an online community and a firm and reconceptualize online users as a stakeholder ecosystem (Kapoor et al., 2018).

2.2. Source of information

With the proliferation of social media, many companies are focusing on the use of influencer marketing (Audrezet et al., 2018; Boerman, 2020; Ki and Kim, 2019a, 2019b; Lou and Yuan, 2019). Social media influencers are considered opinion leaders for their followers in the social networks in which they perform (De Veirman et al., 2017). They are seen by consumers as disseminating information based on their personal sensitivities and interests. Therefore, they are considered sources of information with credibility, expertise, and authenticity (De

Veirman et al., 2017; Djafarova and Rushworth, 2017; Schouten et al., 2020). A method has been proposed to use big data analysis to search for consumers, called “market mavens,” with expertise and information-dissemination ability that can be used in influencer marketing (Harrigan et al., 2021). For example, the way social media influencers create electronic word-of-mouth (eWOM) to introduce and recommend brands and products to consumers has been described in terms of six narrative strategies: advising, enthusiasm, educating, appraising, amusing, and assembling (Zhou et al., 2020). Shareef et al. (2020) studied the trust development process on social media platforms and validated a theoretical framework for the antecedents of social media trust.

2.3. Advertisement in social media

The effectiveness of advertising in social media has been studied in terms of viral marketing through eWOM. Many studies have used social exchange theory (SET), message effects, sharing motivations, and platform effects to explain viral referrals in social media. However, Hayes and King (2014) asserted that the relationship between the recipient of the information and the advertised brand needs to be considered to explain the mechanism of viral referrals. Chu (2011) reported that college-aged Facebook group members generally engaged in higher levels of self-disclosure and maintained more favorable attitudes toward social media and advertising than non-group members did. However, Facebook group participation exerts no influence on users’ viral advertising pass-on behaviors (the process of passing on referrals to others). Regarding differences in credibility levels between information sources, one study examined the differences in effectiveness between three social media product advertising campaigns and found partial differences (Shareef et al., 2019). Pentina et al. (2013) confirmed that trust in social media leads to followers’ patronage intentions for social media and the brands featured on the site. They also pointed out that these relationships change depending on the cultural context, such as the country.

Multiplatform social media influencers have diverse backgrounds. They act as micro-celebrities with a smaller number of followers than traditional celebrities (Jiménez-Castillo and Sánchez-Fernández, 2019). These non-traditional celebrities, famous only to a niche group (Abidin, 2016), are increasingly regarded as being more powerful than traditional celebrities are. In the online context, they are perceived as more credible and accessible (Djafarova and Rushworth, 2017). A survey of the effects of advertising by social media micro-celebrities, primarily on 18- to 31-year-olds, showed that the influence of followers positively impacted customers’ perceptions of recommended brands and their brand purchase intentions (Jiménez-Castillo and Sánchez-Fernández, 2019). In addition, a survey of digital influencers on Weibo (China’s equivalent of Twitter), mainly among users under 30 years old, showed that wishful identification and PSR positively affected stickiness toward the influencer, or time spent watching the influencer (Hu et al., 2020).

3. Theoretical background and hypothesis development

Despite the proliferation of social media research, the current scales used to validate the marketing effect of social media influencers do not sufficiently capture the increasingly complex nature of the social media environment. In addition, the characteristics of diversified social media influencers and multiple platforms have not been adequately examined in terms of marketing effectiveness.

To address these research gaps, we employ the theory of persuasion in the context of video advertising by social media influencers. Herein, we present the detailed shape of the theory adapted for social media influencer research using the underlying constructs identified from prior studies. Then, we propose an empirical research model with related hypotheses.

3.1. Theory of persuasion

Persuasion is a process targeted at changing a person’s attitude or behavior. One branch of persuasion theory uses the elaboration likelihood model (ELM), which specifies two routes of persuasion: central, with higher elaboration likelihood, and peripheral, with low elaboration likelihood (Petty and Cacioppo, 1981). In the central route, a person assesses the information provided against how well it supports their values, whereas in the peripheral route, the person assesses how attractive the communication source is without performing in-depth deliberation.

This route theory of ELM stipulates that communication that does not require careful deliberation by personal value systems is better suited to the peripheral route (Petty and Cacioppo, 1986; Dotson and Hyatt, 2000). This peripheral route is geared toward more heuristic-based persuasion, through which attitudes or beliefs are leveraged by appeals to characterize the information sources through the lens of credibility. Studies have also established that positive impressions of a social media target are formed on the basis of minimal cues (Bacev-Giles and Haji, 2017).

The theory of persuasion can be applied to social media influencers, as follows: The followers’ characterization of the influencer (e.g., trustworthiness) affects their behavioral intentions (i.e., purchase intentions). Followers buy more when they perceive the influencer as trustworthy. This characterization of trustworthiness is formed in the followers’ minds based on the observations of the influencer’s personal attributes, such as attractiveness. Fig. 1 presents the research framework used in this study.

We theorized that, in the social media context, influencers’ personal attributes condition followers’ characterizations of them. In turn, these characterizations trigger the followers’ peripheral routes, leading to behavioral intention. Using this research framework, we reviewed the critical antecedents leading to purchase intentions among followers and identified them from extant social media studies.

3.2. Personal attributes versus perceived characterization

Studies have not clearly differentiated the personal attributes of influencers from the characterizations of followers. For example, Lou and Kim’s (2019) study of online posts identified informative value, entertainment value, trustworthiness, expertise, attractiveness, and similarity as factors critically related to brand awareness and purchase intentions. From the study’s theoretical perspective, trustworthiness and expertise were the characteristics of influencers, while attractiveness and similarity were personal attributes. The persuasion theory adapted for this study differentiates characterization from personal attributes. The basis for the followers’ characterizations of influencers is their personal attributes. Personal attributes are possessed and exhibited by the influencers, whereas the characterizations of the influencers are the perceptions of the followers. In this regard, these two constructs differ in theoretical framework.

3.3. Characterization

Our literature review identified three characterization constructs: trustworthiness, perceived expertise, and PSRs (Djafarova and Rushworth, 2017; Lim et al., 2017; Ki and Kim, 2019; Lou and Kim, 2019; Schouten et al., 2020; Sokolova and Kefi, 2020). These are important in explaining the purchase intentions of followers in social media influencer marketing.

3.3.1. Trustworthiness

As in traditional media, trustworthiness plays a critical role in social media influencer marketing. Traditionally, credibility is defined as the degree of trustworthiness and reliability of a source (Rogers and Bhowmik, 1970). Sternthal et al. (1978) argued that the credibility of a

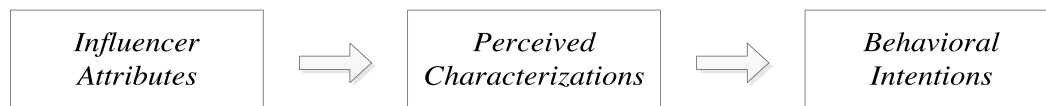


Fig. 1. Adapted theory of persuasion framework.

source is formed through trustworthiness and expertise; trustworthiness represents the degree to which the audience perceives the speaker's claims to be valid. Trustworthiness relates to the speaker's perceived honesty. Goodwill reflects their perceived level of caring about their audience (Sokolova and Kefi, 2020). Perceived expertise and authenticity are usually accompanied by trustworthiness in predicting positive outcomes for social media marketing (Chapple and Cownie, 2017; Djafarova and Rushworth, 2017; Schouten et al., 2020; Sokolova and Kefi, 2020).

Several studies have investigated influencers' credibility, including trustworthiness, as a determinant of followers' purchase intentions (Reichelt et al., 2014; Erkan and Evans, 2016; Djafarova and Rushworth, 2017; Schouten et al., 2020; Sokolova and Kefi, 2020). Some studies have found that PSR mediates the influence of trustworthiness, expertise, and similarity to influencers on viewers' purchase intentions (Lee and Watkins, 2016). Trustworthiness was found to be positively related to the perceived PSR between adolescent followers (aged 10–19 years) and their favorite influencers, which in turn was associated with purchase intention (Lou and Kim, 2019). Thus, the following hypothesis is proposed:

H1. Trustworthiness is positively associated with followers' purchase intention.

3.3.2. Perceived expertise

Expertise, knowledge, and experience in a given domain are the main factors of credibility, along with trustworthiness and goodwill (Hovland and Weiss, 1951; Sternthal et al., 1978; McCroskey and Teven, 1999). Expertise is defined as the degree of perceived understanding, skills, and knowledge of the endorser (Hovland et al., 1953). By virtue of expertise, highly credible sources are likely to induce the belief that their message is valid (Sternthal et al., 1978). An endorser's expertise is akin to a qualification that directly influences the level of conviction needed to persuade consumers to purchase whatever is endorsed (Wang and Scheinbaum, 2018). Thus, a lack of expertise can reduce the perceived credibility of influencers (Sokolova and Kefi, 2020).

Expertise has a positive influence on both brand attitude and purchase intention (Till and Busler, 2000). Credibility, including expertise, is positively related to purchase intention. Longtime followers of trustworthy influencers who care about their followers and show expertise about a subject are more likely to purchase the featured products (Sokolova and Kefi, 2020). Djafarova and Rushworth (2017) interviewed female Instagram users aged 18–30 and found that social media influencers on YouTube and Instagram were more strongly associated with expertise and purchasing behavior than traditional celebrities were. Thus, the following hypothesis is proposed:

H2. Perceived expertise is positively associated with followers' purchase intention.

3.3.3. Parasocial relationship

Horton and Wohl (1956) defined PSR as the enduring relationships that users form with a mediated performer. The user perceives the performer as an intimate conversational partner. The theory of parasocial interaction (PSI) also defines the relationship between a spectator and a performer (Horton and Wohl, 1956), wherein an illusion of intimacy is taken for a real interpersonal relationship (Dibble et al., 2016). Although PSR may begin to develop only during viewing, it is a long-term association that tends to extend beyond a given media

exposure and is thus considered to be conceptually similar to real-life relationships (Dibble et al., 2016). Such a relationship is self-established, and others may be unaware of it (Kelman, 1958). Kim et al. (2015) found that social networking site usage was positively related to the development of a PSR with celebrities. Online social networking users can create such a relationship with bloggers by subscribing to their channels or blogs and following their posts on social media (Sokolova and Kefi, 2020). Moreover, PSR positively affects attitudes toward the use of social networking services (Yuan et al., 2016).

PSR seems to be closely associated with social media followers' purchase intentions (Erkan and Evans, 2016; McCormick, 2016; Djafarova and Rushworth, 2017; Lim et al., 2017; Augustine, 2019; Ki and Kim, 2019; Lou and Kim, 2019; Woodroof et al., 2020). For social media influencers on YouTube and Instagram, intention to purchase is determined by both PSI and credibility. For celebrity followers, PSR positively affects purchase intention (Hwang and Zhang, 2018). In terms of brand perspectives, several studies have shown that PSR between influencers and followers affects the purchase intentions of the followers (Lee and Watkins, 2016; Chung and Cho, 2017). Thus, the following hypothesis is proposed:

H3. PSR is positively associated with followers' purchase intention.

3.4. Personal attributes

Influencers' personal attributes are considered peripheral cues in the theory of persuasion. Followers characterize social media influencers based on an observation of these personal attributes. Three attributes have been identified as being particularly important for characterizing influencers: attitude homophily, physical attractiveness, and social attractiveness (Lee and Watkins, 2016; Lou and Kim, 2019; Sokolova and Kefi, 2020). These three attributes dominate because social media influencer marketing is characterized by a higher degree of engagement with the audience (Arora et al., 2019).

3.4.1. Attitude homophily

A high degree of congruence between a social media influencer's image and a consumer's ideal self-image leads to effective endorsement outcomes (Shan et al., 2019). Attitude homophily is related to similarity and is based on the principle that contact between similar people occurs at a higher rate than that between dissimilar people (McPherson et al., 2001). Individuals with similar attitudes often communicate with each other (Rogers and Bhowmik, 1970). Although one study shows that celebrities who are familiar with their audience are more effective in marketing (McCormick, 2016), social media influencers who are perceived by their followers to be similar to them may also be more effective because of attitude homophily (Sokolova and Kefi, 2020). Previous studies have shown that the similarity between influencers and followers increases influencers' social appeal (Byrne, 1961; Gonzales et al., 1983).

Research on word-of-mouth (WOM) behavior has found that attitude homophily is an important antecedent of trustworthiness that can lead to eWOM behavior (Li and Du, 2011). Similar studies on celebrity influencers have also found that attitude homophily is closely related to the trustworthiness level (Al-Emadi and Yahia, 2020). Homophily affects both PSI and credibility, comprising trustworthiness in the social media influencer context (Sokolova and Kefi, 2020). The perceived trustworthiness of influencers increases when they exhibit attitude homophily with their followers. Thus, the following hypothesis is

proposed:

H4a. Attitude homophily is positively associated with trustworthiness.

In the beauty industry, the effects of the four dimensions of the homophily construct (i.e., attitude, value, background, and appearance) have been found to influence the perceived expertise of vloggers, thereby leading to emotional attachment to them (Ladhari et al., 2020). Regarding online health behavior, Wang et al. (2008) studied credibility and homophily as two underlying mechanisms of social influence and found that homophily grounded credibility (including expertise) perceptions driving the persuasive process in online discussion groups; the more homophilous the online health information stimuli were, the more likely people were to adopt the advice offered. Hence, followers perceive a higher level of expertise when they feel homophily. Accordingly, the following hypothesis is proposed:

H4b. Attitude homophily is positively associated with perceived expertise.

Both external and internal similarities significantly affect consumers' PSR along with trust transfers, which, in turn, profoundly affect their social commerce behaviors (Fu et al., 2019). A study by Harry Potter fandom found that attitude homophily was an important determinant of PSRs with Potter (Schmid and Klimmt, 2011). Meanwhile, in a study of politics, attitude homophily measured by a drinking-buddy scale was found to predict the ratings of PSR perception (Powell et al., 2012). Homophily affects both PSI and credibility, showing that value sharing is a strong aspect of persuasion (Sokolova and Kefi, 2020). Thus, the following hypothesis is proposed:

H4c. Attitude homophily is positively associated with PSR.

3.4.2. Physical attractiveness

Physical attractiveness has been an important topic in attitude change research (Berscheid and Walster, 1974). It is a critical attribute of vloggers because followers can see them all the time (Rubin and Perse, 1987; Rubin and Step, 2000). Recent studies of social media influencers have investigated physical attractiveness as an important impact factor along with audience participation and influencer transparency (Augustine, 2019; Munnukka et al., 2019; Woodroof et al., 2020). Traditional studies on physical attractiveness have analyzed the effects of the appearance of the model in advertising (Joseph, 1982).

In a study of online dating profiles, perceived attractiveness was found to increase trustworthiness. For example, Airbnb hosts' physical attractiveness in online photographs affects their perceived trustworthiness (Ert and Fleischer, 2020). Physical attractiveness was also found to be positively related to credibility, including expertise (Sokolova and Kefi, 2020). Thus, the following hypothesis is proposed:

H5a. Physical attractiveness is positively associated with trustworthiness.

Advertising research has found that an information sender's physical attractiveness has a positive effect on perceived expertise and liking (Joseph, 1982; Patzer, 1983). Palmer and Peterson (2016) studied how citizens identify political experts. They reported that individuals who are more attractive are viewed as more knowledgeable and persuasive. The impact of online reviewers' physical attractiveness cues in profile photos was found to influence their perceived level of expertise, leading to positive brand evaluations (Ozanne et al., 2019). Physical attractiveness was also found to be positively related to the credibility, including expertise, of social media influencers in the beauty and fashion sector (Sokolova and Kefi, 2020). Accordingly, the following hypothesis is proposed:

H5b. Physical attractiveness is positively associated with perceived expertise.

The influence of physical attractiveness on PSR has been confirmed in studies on luxury brands (Lee and Watkins, 2016) and adolescent social media use (Lou and Kim, 2019). The physical attractiveness of the influencer seems to have a strong effect on the formation of the PSR. However, Sokolova and Kefi (2020) reported that physical attractiveness was negatively related to PSI with social media fashion bloggers. Although physical attractiveness is related to credibility, seeking a perfect physical appearance may not be the main goal of followers. Hence, the following hypothesis is proposed:

H5c. Physical attractiveness is positively associated with PSR.

3.4.3. Social attractiveness

Several studies have proposed that social attractiveness in the context of social media should be analyzed separately from physical attractiveness (Rubin and Perse, 1987; Rubin and Step, 2000). Three characteristics of a speaker are considered fundamental in persuasion: authority, credibility, and social attractiveness (Kelman, 1958). Social attractiveness refers to the likability of a speaker (Sokolova and Kefi, 2020). In a study of anthropomorphic speaker interfaces, social attractiveness was found to promote users' social responses to computers, indicating a higher level of trustworthiness (Lee, 2010). Customers universally anthropomorphize brands (e.g., Brown, 1991) and often use them as sources of self-expression and definition (Bourdieu, 1984). Research has analyzed the characteristics of brand anthropomorphism, focusing on the concept of brand love (Carroll and Ahuvia, 2006). Brand love has been identified as an antecedent of loyalty and WOM (Batra et al., 2012), and such a concept may be adapted to marketing by social media influencers who disseminate brands in terms of attractiveness.

Social attractiveness refers to the tendency of influencers to enhance emotional liking from their followers beyond just collecting "likes" on a social media platform. If this concept is highly valued, it may have characteristics similar to concepts such as brand love. Considering that very high social attractiveness may increase customer loyalty, it is also expected to positively affect credibility and PSR, which are considered intermediaries. Meanwhile, a study on personal profiles on social network sites found that social attractiveness was an important cue influencing Facebook users' perceived trustworthiness (Toma, 2014). Thus, the following hypothesis is proposed:

H6a. Social attractiveness is positively associated with trustworthiness.

As discussed earlier, social attractiveness is a criterion that these individuals use to gauge the trustworthiness that forms credibility. A large number of followers associate great social capital with social attractiveness, leading to a positive evaluation of a person's expertise level (Jin and Phua, 2014). Thus, the following hypothesis is proposed:

H6b. Social attractiveness is positively associated with perceived expertise.

According to Rubin and Perse (1987), the social attractiveness of favorite television performers is positively related to PSR. Moreover, in an online survey, the social attractiveness of social media fashion bloggers was found to positively affect the PSR of female respondents (Lee and Watkins, 2016). Furthermore, the social attractiveness of four fashion bloggers on Instagram and YouTube was found to be positively related to PSI, with the influence rejected if the respondent was part of Generation Z (born after 1995; Sokolova and Kefi 2020). Thus, the following hypothesis is proposed:

H6c. Social attractiveness is positively associated with PSR.

In developing our research model, we adapted the theory of persuasion as an umbrella framework, in which PSR is embedded as a construct of follower characterization (see Fig. 2). To serve as the independent constructs of the research model, three personal attributes (attitude homophily, physical attractiveness, and social attractiveness) were selected from the literature review, and three characterization constructs (trustworthiness, perceived expertise, and PSR) were selected as mediators. Furthermore, we validated the differences based on the related control variables: gender, age, product/service, and influencer type.

4. Methodology

4.1. Measures

This study was a cross-sectional analysis that used a survey method to collect data from South Korea. The variables used in the research model were operationalized by adapting the measures developed in prior social media studies. Some of the wording was changed to match the context of this research, such as “YouTubers” instead of “influencers” or “bloggers.” The survey consisted of closed-ended questions measured on a 5-point Likert scale. Respondents were asked to choose from five answers, ranging from “strongly disagree” to “strongly agree.” The questionnaire was translated into Korean using a back-translation technique (Brislin, 1970). After the development of the measurement instrument, a pilot test was conducted to ensure the adequacy of the questionnaire for five graduate students at Yonsei University, Seoul, Korea. Table 1 depicts the measures of each variable in the questionnaire and the related literature.

4.2. Sample, data collection, and validation method

This study investigated the roles of influencers and followers’ personal attributes in enhancing purchase intentions in the context of video advertising. YouTube has become the leading platform for promoting products through video (Schwemmer and Ziewiecki, 2018), and its effectiveness has been extensively analyzed (e.g., Djafarova and Rushworth 2017, Hwang and Zhang 2018, Sokolova and Kefi 2020). Therefore, this study examined YouTube as the target platform for video marketing by influencers.

The population of this study represented all YouTube followers in South Korea with experience in purchasing products or services after watching YouTube videos produced by an influencer. South Korea,

where digital marketing is considered to be well penetrated in the market (Holroyd, 2019), was used as the market for this case study. The respondents were solicited via a mailing list provided by a South Korean research firm. The list provided adequate data for this survey because the source consisted of a wide range of people who were representative of the national population. A web-based survey was also designed and administered. We sent emails containing a URL to access the survey webpage. The respondents received membership points after completing the survey.

Screening questions were placed at the beginning of the survey to check whether they regularly used YouTube as an influencer channel, had experience in purchasing products or services after watching a YouTuber video, and subscribed to at least one YouTube channel. Participants who answered “yes” to all of these screening questions were asked to fill in the remainder of the survey. Unqualified participants denied further access.

The final sample size was 313. The responses were coded into SPSS version 25 for a descriptive analysis of the demographics and basic characteristics of the study sample. The respondents’ demographics are presented in Table 2.

The study’s data analysis used the structural equation modeling (SEM) technique, which is a multivariate statistical technique that integrates empirical data and the underlying model to assess the direct and indirect relationships between constructs. This study used SEM with partial least squares (PLS-SEM). We had planned to make comparisons using control variables, but we lacked a sample large enough to make comparisons, and PLS-SEM analysis is more adaptable for a smaller sample size than covariance-based SEM (Hair et al., 2019). SmartPLS 3 is used as software to perform two-stage data analysis models based on PLS-SEM (i.e., the measurement model and structural model).

5. Results

5.1. Measurement model assessment

To validate the measurement model, we first evaluated the item loadings on relevant constructs to assess indicator reliability. Second, we examined the internal consistency of each construct using composite reliability and Cronbach’s alpha. Third, we examined convergent validity using the average variance extracted (AVE) values for all the indicators of each construct. Fourth, the heterotrait-monotrait ratio of correlations (HTMT) criterion was used to assess discriminant validity.

As shown in Table 3, all item loadings were above the threshold of

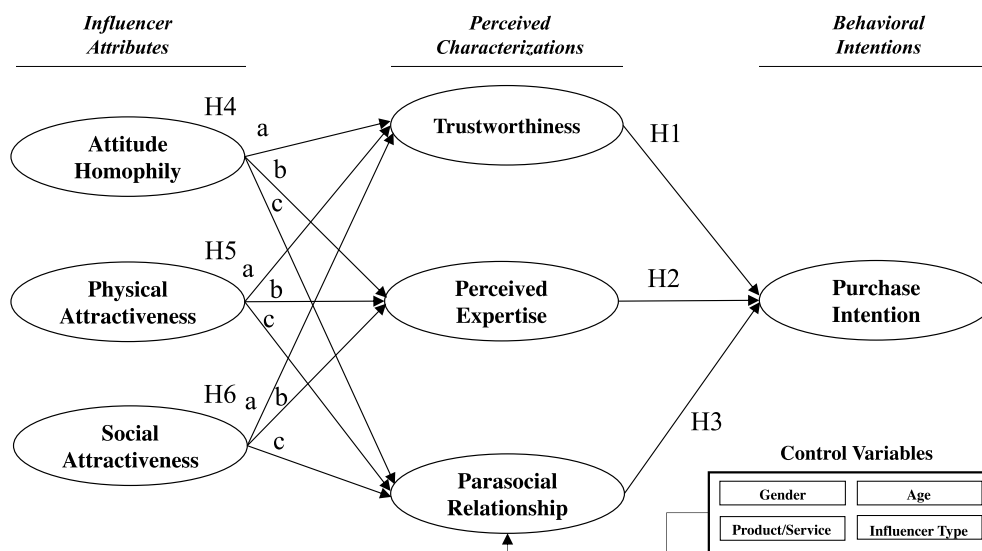


Fig. 2. Proposed research model.

Table 1
Questionnaire measures.

Construct	Item	Measure
Attitude homophily (AH) (Lou and Kim, 2019)	AH1	This YouTuber and I have a lot in common
	AH2	This YouTuber and I are a lot alike
	AH3	This YouTuber thinks like me
	AH4	This YouTuber shares my values
Physical attractiveness (PA) (Duran and Kelly, 1988)	PA1	I think this YouTuber is handsome/pretty
	PA2	This YouTuber is somewhat attractive
	PA3	I have a better relationship with this YouTuber than other YouTubers
	PA4	I find this YouTuber very attractive physically
Social attractiveness (SA) (Duran and Kelly, 1988)	SA1	I think this YouTuber could be my friend
	SA2	I want to have a friendly chat with this YouTuber
	SA3	We could be able to establish a personal friendship with each other
	SA4	This YouTuber would be pleasant to be with
Trustworthiness (Trust) (Lou and Kim, 2019)	Trust1	I feel this YouTuber is honest
	Trust2	I consider this YouTuber trustworthy
	Trust3	I feel this YouTuber is truthful
Expertise (Exp) (Lou and Kim, 2019)	Exp1	I feel this YouTuber knows a lot
	Exp2	I feel this YouTuber is competent to make assertions about things that this YouTuber is good at
	Exp3	I consider this YouTuber an expert on his/her area
	Exp4	I consider this YouTuber sufficiently experienced to make assertions about his/her area
Parasocial relationship (PSR) (Rubin and Perse, 1987)	PSR1	This YouTuber makes me feel comfortable as if I am with a friend
	PSR2	I see this YouTuber as a natural, down-to-earth person
	PSR3	I look forward to watching this YouTuber in his/her next video
	PSR4	If this YouTuber appeared in a video on another channel, I would watch or read his/her post
	PSR5	This YouTuber seems to understand the kind of things I want to know
	PSR6	If I saw a story about this YouTuber in a newspaper or magazine, I would read it
	PSR7	I miss seeing this YouTuber when he/she is ill or on vacation
	PSR8	I want to meet this YouTuber in person
	PSR9	I feel sorry for this YouTuber when he/she makes a mistake
	PSR10	I find this YouTuber attractive
Purchase intention (PI) (Casalo et al., 2017)	PI1	I think I will buy products or services recommended by this YouTuber
	PI2	I will probably buy products or services after watching this YouTuber

0.7. Cronbach’s alpha for each construct ranged from 0.744 to 0.915. Moreover, the smallest composite reliability was 0.884, which is much greater than the recommended threshold of 0.7. These assessments confirmed the internal consistency of the measures for each construct. In addition, all the AVE values were well above the required minimum level of 0.50, implying high levels of convergent validity for all measures. Table 4 presents the results of the discriminant validity analysis using the HTMT criterion. All values were below 0.90. Therefore, discriminant validity was verified.

5.2. Structural model assessment

The first step of the structural model assessment is to ensure that no significant levels of collinearity exist among the predictor constructs, which can create problems of redundancy in the analysis. This can be assessed using the variance inflation factor (VIF). All VIF values among

Table 2
Respondents’ demographics.

Characteristic	Frequency (n)	Percentage (%)
Gender		
Male	201	64.22
Female	112	35.78
Age group (years)		
20–29	25	7.99
30–39	77	24.60
40–49	86	27.48
50–59	68	21.73
60–69	57	18.21
Purchase category		
Product	157	50.16
Service	156	49.84
Influencer type		
Professional YouTuber	167	57.00
Celebrity, Expert	65	22.18
Others (Or I do not know, etc.)	81	20.82

the predictor constructs based on the research model were below the threshold value of five, demonstrating no critical multicollinearity issues.

For the path coefficients, the significance of the hypothesized relationship between constructs was tested using the bootstrapping procedure in SmartPLS 3 with 1,000 subsamples. The results are presented in Table 5. Except for H4a and H4b, the proposed research model was largely supported. Among the three characterization constructs influencing purchase intentions, PSR stands out strong ($\beta = 0.391, p = 0.000$) compared with perceived expertise ($\beta = 0.181, p = 0.012$) and trustworthiness ($\beta = 0.225, p = 0.006$). The impact of PSR on purchase intention is much stronger than that of other characterizations. For the associations between personal attributes and characterization, social attractiveness has a relatively strong association ($\beta = 0.204, 0.378$, and 0.446 , respectively) with trustworthiness, perceived expertise, and PSR, respectively. Physical attractiveness also maintained a significant but weaker association ($\beta = 0.172, 0.286$, and 0.361 , respectively). Attitude homophily has the weakest association overall ($\beta = 0.143$ only for the path to PSR).

Regarding explanatory power and predictive relevance, the squared multiple correlation (R^2) and Stone–Geisser’s Q^2 value (Geisser, 1974; Stone, 1977) were tested using the bootstrapping and blindfolding procedure in SmartPLS 3. Table 6 presents the R^2 , R^2 adjusted, and Q^2 values for the endogenous constructs. R^2 measures the percentage of variance explained by the independent constructs in the model. Characterizations consisting of trustworthiness, perceived expertise, and PSR seem to explain approximately 52% of the variance in purchase intentions. Moreover, the personal attributes of attitude homophily, physical attractiveness, and social attractiveness explain 50% of the variances in trustworthiness, 42% of the variances in perceived expertise, and 74% of the variances in PSR, respectively. The Q^2 value is used to interpret the model’s predictive relevance with regard to each endogenous construct (Hair, 2016). The Q^2 values of all endogenous constructs are considerably higher than zero. Therefore, our research model demonstrates high explanatory power and predictive relevance for endogenous constructs.

To conduct model comparisons, we used dummy variables based on demographic information to test how PSR formation was affected by using the PLS-SEM bootstrap procedure. Table 7 presents the results of the path structure using the control variables. All paths except for the dummy variables based on influencer type (professional YouTuber, celebrity/expert, others) were rejected. The formation of PSR was observed to be influenced by consumers’ perceptions of the influencer’s type. However, we also examined the impact of the influencer’s demographic information on purchase intention, finding that none of the dummy variables had any effect.

Table 3
Results of measurement model analysis.

Construct	Cronbach's Alpha	CR	AVE	Item	Outer Loadings	VIF
Attitude homophily	0.882	0.918	0.738	AH1	0.836	2.357
				AH2	0.876	2.782
				AH3	0.863	2.255
				AH4	0.860	2.140
Physical attractiveness	0.827	0.884	0.656	PA1	0.826	1.858
				PA2	0.827	1.650
				PA3	0.784	1.776
				PA4	0.801	1.847
Social attractiveness	0.878	0.917	0.734	SA1	0.857	2.303
				SA2	0.879	2.650
				SA3	0.881	2.656
				SA4	0.807	1.733
Trustworthiness	0.862	0.916	0.785	Trust1	0.869	2.135
				Trust2	0.917	2.704
				Trust3	0.871	2.088
Expertise	0.817	0.879	0.646	Exp1	0.771	1.555
				Exp2	0.824	1.837
				Exp3	0.808	1.832
				Exp4	0.811	1.741
Parasocial relationship	0.915	0.929	0.569	PSR1	0.751	1.991
				PSR2	0.796	1.821
				PSR3	0.707	2.157
				PSR4	0.764	2.376
				PSR5	0.792	2.035
				PSR6	0.732	1.784
				PSR7	0.718	2.591
				PSR8	0.773	2.668
				PSR9	0.750	2.023
				PSR10	0.753	2.321
Purchase intention	0.744	0.887	0.796	PI1	0.893	1.542
				PI2	0.892	1.542

Note: CR = composite reliability; AVE = average variance extracted; VIF = variance inflation factor.

Table 4
Assessment of discriminant validity using HTMT.

	AH	PA	SA	Trust	Exp	PSR	PI
Attitude homophily (AH)							
Physical attractiveness (PA)	0.791						
Social attractiveness (SA)	0.865	0.798					
Trustworthiness (Trust)	0.663	0.668	0.797				
Expertise (Exp)	0.620	0.686	0.719	0.798			
Parasocial relationship (PSR)	0.806	0.865	0.895	0.867	0.687		
Purchase intention (PI)	0.652	0.687	0.765	0.807	0.768	0.834	

Note: HTMT = heterotrait-monotrait criterion.

6. Discussion

With a focus on PSR, this study tested a research model based on the theory of persuasion of how influencer attributes and perceived characteristics affected the behavioral intentions of consumers who bought a product/service after watching video marketing. The results show that purchase intention induced by an influencer via video advertising was influenced by trustworthiness, perceived expertise, and PSR, with a particularly strong influence exerted by PSR. In addition, PSR was influenced by attitude homophily, physical attractiveness, and social attractiveness, with a particularly strong influence exerted by social attractiveness. A comparison based on demographic information found that PSR formation was influenced by how consumers perceived each influencer type (e.g., professional YouTuber, celebrity/expert).

The first important finding is that PSR positively influences followers' purchase intentions via advertisements by social media

Table 5
Results of structural model assessment.

Hypothesis/Structural path	B	p-value	Result
H1 Trustworthiness → Purchase intention	0.225	0.006	Accepted
H2 Perceived expertise → Purchase intention	0.181	0.012	Accepted
H3 Parasocial relationship → Purchase intention	0.391	0.000	Accepted
H4a Attitude homophily → Trustworthiness	0.062	0.422	Rejected
H4b Attitude homophily → Perceived expertise	0.048	0.500	Rejected
H4c Attitude homophily → Parasocial relationship	0.143	0.008	Accepted
H5a Physical attractiveness → Trustworthiness	0.172	0.010	Accepted
H5b Physical attractiveness → Perceived expertise	0.286	0.000	Accepted
H5c Physical attractiveness → Parasocial relationship	0.361	0.000	Accepted
H6a Social attractiveness → Trustworthiness	0.529	0.000	Accepted
H6b Social attractiveness → Perceived expertise	0.378	0.000	Accepted
H6c Social attractiveness → Parasocial relationship	0.446	0.000	Accepted

Table 6
R², R² Adjusted, and Q².

	R ²	R ² Adjusted	Q ²
Purchase intention	0.523	0.519	0.404
Trustworthiness	0.504	0.499	0.389
Perceived expertise	0.423	0.417	0.267
Parasocial relationship	0.740	0.737	0.417

influencers (Hwang and Zhang, 2018; Fu et al., 2019; Lou and Kim, 2019). Sokolova and Kefi (2020) examined social media fashion bloggers and showed that PSI was a behavior that accompanied PSR and that influencer credibility is associated with purchase intention; they also

Table 7
Results of model comparison of PSR by dummy variables.

Structural path related to control variables	β	p-value	Result
Dummy_Female → Parasocial relationship	0.041	0.154	Rejected
Dummy_Age_20–29 → Parasocial relationship	−0.003	0.945	Rejected
Dummy_Age_30–39 → Parasocial relationship	0.013	0.749	Rejected
Dummy_Age_40–49 → Parasocial relationship	−0.043	0.230	Rejected
Dummy_Age_50–59 → Parasocial relationship	0.030	0.070	Rejected
Dummy_Service → Parasocial relationship	−0.024	0.392	Rejected
Dummy_ProfessionalYouTuber → Parasocial relationship	0.103	0.005	Accepted
Dummy_Celebrity+Expert → Parasocial relationship	0.074	0.034	Accepted

showed that when the sample was divided into three age categories, the effect of PSI on purchase intention was greater than that of credibility for Gen Z (born after 1995) and Gen Y (born between 1980 and 1995), and vice versa. By contrast, this study analyzed the influence of perceived expertise and PSR on purchase intention for a wide variety of influencers on YouTube and showed that the influence of PSR on purchase intention was stronger than that of trustworthiness or perceived expertise. These results indicate that PSR may play a more important role in influencing followers' behavioral intentions, such as purchase intentions, for a wider range of influencer marketing targets than previous studies have suggested.

Regarding the second important finding, the constituent factors of PSR have been studied from various perspectives. Sokolova and Kefi (2020) found that the influencer marketing effect of fashion bloggers was significantly influenced by social attractiveness and attitude homophily as a factor in the formation of their PSI, and that physical attractiveness had no effect on PSI; furthermore, the antecedent that had the greatest impact on PSI was attitude homophily. Lou and Kim (2019) showed that, regarding social media influencer marketing effectiveness, PSRs were influenced by entertainment value, expertise, attractiveness, similarity, and trustworthiness among young American adolescents (10–19 years old). The information value was not significantly affected, and the antecedent that had the strongest impact on PSR was similarity. By contrast, we found that attitude homophily, physical attractiveness, and social attractiveness significantly influenced the formation of PSR in the effect of influencer marketing on YouTube for a broader range of products/services and that social attractiveness had the strongest influence, and attitude homophily the weakest, on PSR. These results suggest that the antecedents that make up PSR may also be influenced by the context of influencer marketing, but that the attractiveness of influencers might play a more important role in the composition of PSR in general.

Third, regarding how different influencer types affect PSR, studies have often concentrated on specific influencer marketing contexts. Sokolova and Kefi (2020) conducted a study on how PSR marketing of beauty and fashion influencers on YouTube and Instagram affected their female followers. Hwang and Zhang (2018) examined how influencer marketing by celebrities on social media in China had a PSR marketing effect on consumers. Lou and Kim (2019) examined the marketing effects of PSR on young Americans aged 10–19 due to influencers on social media. Our study covered broader influencer marketing on YouTube and found a significant impact of influencer type (professional YouTuber vs. celebrity/expert), especially with respect to PSR formation. These results indicate that PSR optimization for different marketing contexts needs to be considered in addition to exploring the key constructs related to PSR in social media influencer marketing.

6.1. Theoretical contributions and implications

This study shows the diversity of the PSR's impact on purchase intentions. We found that PSR had the greatest impact on purchase

intentions in our analysis of video ads by social media influencers on diverse topics. In contrast, a study of marketing effectiveness among social media fashion bloggers and female followers found that credibility had a greater influence on purchase intentions than PSR (Sokolova and Kefi, 2020). Thus, when considering PSR in social media influencer marketing, optimization based on more detailed comparisons is necessary because its impact on outcomes varies depending on the marketing context.

The study's second theoretical contribution is showing the association between influencer type and PSR composition. This study determined that the influencer type perceived by consumers influenced PSR formation in a broad range of influencer marketing on YouTube using professional YouTubers, celebrities/experts, and others as control variables. In general, PSR is thought to positively affect influencer marketing outcomes such as purchase intention. However, how PSR is formed might be influenced by how audiences position influencers. In cases such as social media beauty and fashion bloggers, influencers may be seen by female followers as opinion leaders and an object of adoration. Farivar et al. (2021) explained that the marketing effect of Instagram influencers is that followers' purchase intentions are positively influenced not only by PSR but also by their characteristics as opinion leaders. However, this study found no significant effects of gender or age on PSR composition, but these are also expected to be affected by marketing type and data sampling. Hwang and Zhang (2018) argued that empathy and low self-esteem have significant effects on the formation of PSR and that loneliness has no effect on PSR. Thus, it might be necessary to consider the psychological state of followers in social media influencer marketing.

The third theoretical contribution of the study provides a perspective by which to analyze the impact of PSR on the use of new technological marketing channels. New technologies such as artificial intelligence (AI), robotics, and augmented reality (AR) are being applied to the service domain. This may produce new marketing channels using AI, robots, and AR. Rauschnabel (2021) surveyed consumer intentions regarding the widespread adoption of AR and found that the areas of acceptance for consumers, included consumer electronics, complementary daily functions (e.g., post-it notes, shopping lists, calendars), and toys, whereas recording personal memories and use as pets (e.g., virtual dogs) were less acceptable. In this context, video advertising is possible through new channels, such as the AR used in consumer electronics and handling daily errands. Influencer marketing is still useful in information dissemination because information credibility depends on the influencer's characteristics. Furthermore, the marketing effect created when an influencer employs AR to form a PSR with users may be stronger than the market effect without a PSR. The role of influencers in this type of AR advertising is likely to include something related to daily life, such as transmitting weather and traffic information, providing instructions for using home appliances, or tutorials for performing daily errands. Automated technologies such as AI could be used if people were found to perceive credibility in and form PSR with influencers consisting of virtual avatars instead of real people.

6.2. Implications for practice

The study's first practical contribution is that PSR can be used to enhance marketing effectiveness. Focusing on a diverse types of video advertising, this study shows that PSR positively influences purchase intention in social media influencer marketing. By contrast, previous studies have shown that, in influencer marketing in the beauty and fashion field, factors such as influencer credibility have a greater impact on outcomes (Sokolova and Kefi, 2020). Therefore, companies trying to use influencer video marketing can exploit the impact of the constructs of PSR and credibility on key performance indicators (KPIs), such as purchase intention to develop more optimal social media marketing strategies for their targets.

The study's second practical contribution is to provide companies

with a perspective on how to formulate PSRs. This study found that, in relatively general influencer video advertising, PSR was influenced by attitude homophily, physical attractiveness, and social attractiveness, with the influencer's social attractiveness exerting a particularly strong impact. Some studies of advertising in the beauty and fashion fields found a strong influence of attitude homophily on the formation of PSR. Admiration for influencers, such as celebrities and/or the psychological state of followers, is also considered to be involved in PSR composition. Therefore, further optimization of marketing effectiveness can be achieved by increasing PSR with consumers in video marketing using social media influencers after examining how the relevant constructs affect the construction of PSR in targeted consumers.

The study's third practical contribution was to show that PSR could be examined as a marketing KPI when companies use new technologies in their marketing strategies. It is relatively easy to create AI-based robot chats and videos using virtual avatars. An increasing number of companies are considering introducing robots and virtual avatars into their customer touch points. In this new interface with customers, it is worthwhile examining from various perspectives whether a relationship similar to PSR can be established with customers. For example, when companies advertise their products and services, they could investigate how technologically created anthropomorphic objects affect PSR and marketing outcomes.

6.3. Limitations and future research directions

This study had two main limitations. First, further subdividing the influencer type and consumer attribute information used in this study could allow a more detailed analysis of the structure of PSR formation and its influence on marketing effectiveness. Using the research model examined here as a starting point, a more detailed explanation of the impact could be obtained by comparing the models by subdividing the influencer type and consumer attribute information. Second, the study's analysis did not sufficiently incorporate the product/service categories to which the influencers belonged. We considered only the advertising targets, but this perspective did not affect the formation of PSR or purchase intention. Future studies should create subcategories based on the product/service of each advertising target and compare marketing effectiveness levels across the subcategories.

We plan to expand this study's data collection in a way that enables us to verify social media influencer marketing effects and compare the model structures in more detail. In particular, we will classify influencer types, create subcategories based on the products/services associated with the influencers, and conduct data classification based on the consumer's demographic information. In addition, the literature has reported that the marketing effect varies depending on the cultural characteristics of the consumer (Pentina et al., 2013). Thus, we plan to examine the differences in marketing effects based on differences between influencers and consumers' cultural backgrounds (e.g., Asian, European, and American).

7. Conclusion

This study was undertaken to clarify the characteristics of the PSR, which is considered a critical construct in social media influencer marketing. We conducted an online survey of Korean consumers who had purchased a product/service after watching an influencer's video advertisement on YouTube to examine the marketing effect of influencers on repurchase intention in terms of PSR and persuasion theory. The results show that PSR has a stronger influence on purchase intention than trustworthiness and expertise, and that social attractiveness has a greater influence on PSR formation than attitude homophily and physical attractiveness. Furthermore, PSR formation is also influenced by how consumers perceive the type of influencer (e.g., professional YouTuber, celebrity/expert). Thus, PSR might be a more important construct than credibility in terms of more general models based on the

wide variety of foci of influencer advertising. We plan to examine the impact of such PSRs on social media marketing effectiveness based on a more detailed examination of influencers and consumer characteristics.

CRedit authorship contribution statement

Hisashi Masuda: Data curation, Conceptualization. **Spring H. Han:** Formal analysis, Visualization. **Jungwoo Lee:** Writing – review & editing, Formal analysis.

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