Influencer Endorsements: How Deception and Identification Affect the Source Credibility of Product Reviews by Influencers

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Abstract

Influencer marketing, which involves using social media influencers to promote companies' products or services, is becoming increasingly popular. This has made it more difficult to distinguish between truthful information and advertising, which has increased the prevalence of false endorsements, and little research has been done on this matter. Studies have been done on source credibility and deception, but not how these concepts affect each other. This study aimed to identify the effects of deception and of identification with the influencer on the source credibility of product reviews by influencers. A between-subjects experiment was conducted to test the prediction that positive reviews increase the credibility of influencers and the more someone identifies and perceives similarities with the influencer, the more credible the influencer becomes. Respondents were randomly assigned to one of the two conditions: positive customer reviews or negative customer reviews. Jamovi was used to analyze the data, and two different analyses were conducted: an independent samples t-test and a multiple regression. Findings suggest that an honest product review will increase the influencer's credibility and a deceptive review will decrease their credibility. There was no significant effect of the study's moderator: there was no relationship between the more people identify with the influencer and see similarities in them, the more credible they become. This may be due to the scales used to measure identification or the type of influencer used. Future research may use the self-influencer congruency meeting and the influencer must be pre-tested.

Keywords: social media influencers, influencer marketing, deception, identification, source credibility

How Deception and Identification Affect the Source Credibility of Product Reviews by Influencers

Social media's growth has altered and broadened people's ability to interact, exchange information, and engage with one another (Cheung et al., 2011; Holt, 2016). Individuals are becoming increasingly involved and important in the creation of other users' opinions and therefore influencing these users about the products they use, either positive or negative (Silva et al., 2019). These individuals are known as influencers, and due to their large number of followers they have a perceived social impact (Jin & Phua, 2014). Influencers are people who have the capacity to influence purchasing decisions of others because of their (actual or perceived) power, expertise, or position (Harris, 2019).

This rise of influencers has had a significant impact on how companies sell their products and services (Dwivedi et al., 2021). As a result, firms are increasingly turning to social media influencers to advertise their products and services, a practice known as influencer marketing (Mediakix, 2017). Companies approach influencers by offering to promote (endorse) their products through this process, called influencer endorsements (Almeida et al., 2018). This is a type of promotion that relies on a connection between the endorser and the brand (Temperley & Tangen, 2006; Till, 1998).

Therefore, influencer marketing has become popular for brands because influencers can interact and build relationships with customers (Hwang & Zhang, 2018; Lee & Watkins, 2016) to then use their social media platforms to promote third parties' items (Harris, 2019). Besides, influencer marketing has shown to be one of the most successful strategies for businesses to increase brand awareness and increase sales revenue (Shams, 2021). As a result, companies see this as an opportunity to collaborate with these influencers by having their products reviewed.

However, fake online reviews and other false endorsements are frequently used to promote items online (Federal Trade Commission, 2021). Over 700 companies have received official warnings from the Federal Trade Commission (FTC) for using fake reviews and deceptive endorsements, this also included using endorsements to make deceptive claims. Deceptive endorsements are a problem because consumers do not have access to all the (honest) information they require to make an informed decision. As a result, consumers may end up wasting money on products or services that they do not want or desire (Healy, 2021).

Generally, influencer endorsements affect the perceived credibility of influencers by consumers. If consumers believe that the advertised product is fake or misleading, they create negative attitudes toward the brand and influencer (Cheung et al., 2009). The credibility of influencers is one of the most important factors in the effectiveness of an advertisement (Lee & Kim, 2020). When an influencer promotes a product, the consumers' views of this influencer are connected to the brand of the promoted product (Temperley & Tangen, 2006; Till, 1998). Expertise, trustworthiness, and attractiveness are criteria by which an influencer is seen as credible by consumers (Ohanian, 1990).

Because of their perceived credibility, influencers can be more effective at reviewing products than when brands do it themselves (Audrezet et al., 2020; Hughes et al., 2019; Kannan & Li, 2017). Online product reviews by influencers and other consumers are important information for consumers to decide whether they want to buy a product (Ansari & Gupta, 2021). Often these are incentivized reviews, where brands collaborate with influencers to post (positive) reviews about their products (Gerrath & Usrey, 2021). Influencer endorsements have grown recently (Shams, 2021), and this rise has made it difficult to distinguish between truthful information and advertising, increasing false endorsements.

These influencer endorsements and their perceived credibility can be enhanced if consumers feel connected, or can identify, with the influencer. This relationship affects the strength of how credible a person finds an influencer, or in other words, the more a person identifies with the influencer, the more credible the influencer becomes (Ajzen & Fishbein, 1977). Moreover, consumers are more likely to see influencer endorsements as genuine information since they trust their friends' ideas and perceive their connection with an influencer to be a friendship (Colliander & Dahlén, 2011).

Several studies have been conducted on the credibility of influencers (e.g., Djafarova & Rushworth, 2017; AlFarraj et al., 2021), but they lack information on the distinction between truthful and deceptive product reviews, how this affects source credibility, and whether influencer identification influences this relationship. Therefore, this study will focus on the perceived credibility of consumers when they see a truthful versus a deceptive product review by an influencer and whether this is moderated by influencer identification. Consequently, the proposed research question is:

'To what extent does the type of review (deceptive vs. truthful) affect source credibility and to what extent is this effect moderated by identification with the influencer?'

Theoretical Framework

In order to gain insight into how deception and identification influences source credibility, a theoretical framework must first be outlined. This theoretical framework will elaborate on the main concepts of the objective as formulated in the introduction. First, it discusses what deception and identification are and ultimately how these two concepts affect source credibility.

Deception in Endorsements

The definition of deception in advertising may be divided into two categories: the advertiser's deception and the consumer's perception of the advertisement (Gardner, 1975). For instance, deception can be defined as intentionally generating or maintaining misleading perceptions in other communicators (O'Hair & Cody, 1994). According to the Federal Trade Commission, deception occurs when an objectively determinable important fact is presented incorrectly, ambiguously, or in a misleading manner (Gardner, 1975). Another definition of deceptive advertising is that advertising is misleading if it leads to incorrect ideas about a product among a large number of customers (i.e., those to whom it is addressed or whose consumption behavior is likely to be influenced by it) (Carson et al., 1985).

When individuals know they are seeing deceptive information, they would likely take different actions regarding the choice of a product, than if they were reading truthful information (Grazioli & Jarvenpaa, 2003). The main problem with the increasing practice of deceptive information and marketing (Campbell et al., 2013; Kaikati & Kaikati, 2004) is the fact that individuals may not have the same persuasive knowledge as marketers because they expect to read experiences and views from like-minded influencers with whom they have a relationship and can relate to, rather than marketers (Campbell et al., 2013; Darke & Ritchie, 2007). As a result, individuals cannot distinguish between truthful and deceptive information, and can therefore make poor decisions.

The Interpersonal Deception Theory (IDT) explains the process that results in individuals' judgments of deception (George et al., 2014). During communication, recipients alter their behavior as they become suspicious of deception. When someone produces a deceptive message, the recipient may seek deception (consciously or subconsciously) if that person is

highly motivated and is suspicious about the deception. According to this theory, when recipients read the communication message, they view the deceivers as deceivers or truthful depending on the facts they communicated (George et al., 2014).

In addition to the IDT theory, another theory is the Truth-Default Theory (TDT). This theory states that people assume that what other people are saying is honest when communicating with each other (Levine, 2014). According to this theory, a variety of trigger events might cause people to depart from the truth-default state. Examples of trigger events are a projected reason for deceit, dishonesty-related behaviors, a lack of coherence in message content, a discrepancy between communication content and some knowledge of reality, or information from a third party warning of prospective deception.

If consumers believe an advertisement or the source of an advertisement has manipulative purposes, they are more likely to develop negative attitudes or actions against it (Friestad & Wright, 1994; Nelson et al., 2009). Besides, consumers create negative attitudes toward the brand and the celebrity endorser when they believe that the promoted items are seen as misleading and invalid (Cheung et al., 2009). Thus, previous research has shown that the credibility of influencers decreases when they do not speak the truth. However the credibility increases when influencers speak the truth. Therefore, the following hypothesis is established:

H1: A truthful product review will have a more positive effect on source credibility than a deceptive review.

Social Identification and Perceived Similarity with Influencers

The source credibility can also be affected by the relationship with the source, in this case the influencer. Influencers' visibility allows followers to form close relationships with them (Stever & Lawson, 2013). Viewers tend to see an influencer as a trustworthy information source

after frequent exposure since frequent exposures contribute to create comparable emotions of relationship development (Lee & Watkins, 2016). When followers build a relationship with an influencer because of frequent exposure, followers regard those influencers as credible sources of information and therefore also their advertising (Hwang & Zhang, 2018). Furthermore, because consumers believe the opinions of their friends and consider the relationship with an influencer to be a friendship, they are more likely to view influencer endorsements as credible information (Colliander & Dahlén, 2011).

Social identification is one reason why young adults buy products recommended by influencers. Social identity theory is a valuable tool for explaining social consumption behavior and how people define themselves as members of a community (Mael & Ashforth, 1992). The individual's awareness that they belong to various groups, as well as the emotional and value importance of the group membership to them, may be characterized as social identity (Tajfel, 1972). People's online activity is also influenced by their social identification with public figures (Jin & Ryu, 2019; Jin & Ryu, 2020; Loureiro & Sarmento, 2019). Besides, to form an online connection with a public figure, such as an influencer, people must first identify with them (Loureiro & Sarmento, 2019).

In addition to social identification, there is also the perceived similarity to the influencer. Perceived similarity, or the degree to which others believe they have something in common with the endorser, may be used to estimate how much one identifies with someone (Hoffner & Buchanan, 2005). Perceived similarity is positively associated with trust, which means that people who feel themselves to be similar to their group members are more inclined to trust them (Lacewell, 2015). However, when someone is not regarded as similar, they are considered as more dishonest, untrustworthy, and uncooperative, which means that similarity between persons

might impact the establishment of trust (Brewer, 1979). Thus, when someone considers someone as not being similar to them, they are less likely to trust them.

Based on the source credibility model by Ohanian (1990), the perceived credibility of an influencer determines the impact of an endorsement. Individuals evaluate the credibility of a brand's endorser based on their characteristics, the quality of an argument and fit with the product they promote when confronted with a brand endorsement (Kapitan & Silvera, 2015). Positive endorser characteristics (e.g., familiarity, attractiveness, likability, etc.), the high quality of the arguments, and the endorser's good fit with the endorsed brand all contribute to a positive perception of trustworthiness, honesty, and expertise, leading to a positive attitude toward the endorsement message and the brand (Goldsmith et al., 2000). These characteristics relate to identification and thus influence an influencer's credibility. As a result, the communication source's perceived credibility increases the possibility that the target audience will accept the message (Ajzen & Fishbein, 1977).

Social identity and perceived similarity appear to be essential components in online behavior, trust in others and identifying with someone. As a result, the following hypothesis is proposed:

H2: The more someone can identify with the influencer, explained by social identification and perceived similarity, the more credible they find the influencer.

Source Credibility

As stated before, one of the most essential variables in the efficacy of an advertisement is the credibility of influencers (Lee & Kim, 2020). The credibility of the source of the review is important since several studies (Bart et al., 2005; Benedicktus et al., 2010; Schlosser et al., 2006), suggest the relevance of trust-related variables in consumer decisions and behavioral

infestations on the Internet. Consequently, consumer views and their behavior are influenced by the information of the credible source (Hovland et al., 1953; Dholakia & Sternthal, 1977).

Source credibility is described as the degree to which the target audience examines the source in order to develop expertise and knowledge in their understanding of the product/service (Ohanian, 1990; Teng et al., 2014). According to Ohanian's Model of Source Credibility (1990), the efficiency of a message is determined by three dimensions: the influencer's perceived level of expertise, trustworthiness, and attractiveness. The degree to which an influencer is viewed as competent, knowledgeable, qualified and is in general a reliable source is characterized as expertise (Erdogan, 1999). The focus of this dimension is on how consumers perceive the influencer rather than their real expertise (Hovland et al., 1953; Ohanian 1991). The dimensions of trustworthiness includes the perceived reliability, dependability and honesty of an influencer (Erdogan, 1999). The degree to which an influencer is perceived as classy, sexy and beautiful is referred to as attractiveness (Erdogan, 1999). Thus, attractiveness relates to the source's physical appearance (Ismagilova et al., 2020). This dimension has a significant influence on consumer purchasing behavior (Kahle & Homer, 1985). Therefore, someone who scores high on these three dimensions is seen as a credible source and people will also trust the information this person proclaims.

Moreover, the consistency theory argues that when people's judgements of others are consistent, they feel at ease, and this can either be positive or negative (Solomon, 1996). As a result, a statement that clearly states that a post is an advertisement (rather than hiding this information), might be regarded favorably by consumers and increase the source's attractiveness. On the other hand, when it is not clearly communicated and thus hiding this information, this

indicates a lack of honesty and trustworthiness and does not reflect a good influencer-brand connection (Evans et al., 2017).

According to the persuasion knowledge theory, consumers are more likely to develop unfavorable attitudes or behaviors toward an advertisement or the source of an advertisement if they believe it includes manipulative intent (Friestad & Wright, 1994; Nelson et al., 2009). While clear communication might be interpreted as transparent, a deception reveal can be interpreted as manipulative (van Reijmersdal et al., 2015). Besides, consumers have a negative attitude toward the brand and the celebrity endorser when the promoted items are seen as misleading and invalid (Cheung et al., 2009). As a result of being exposed to deception, consumers may create an unfavorable perception toward the source credibility.

Method

Design

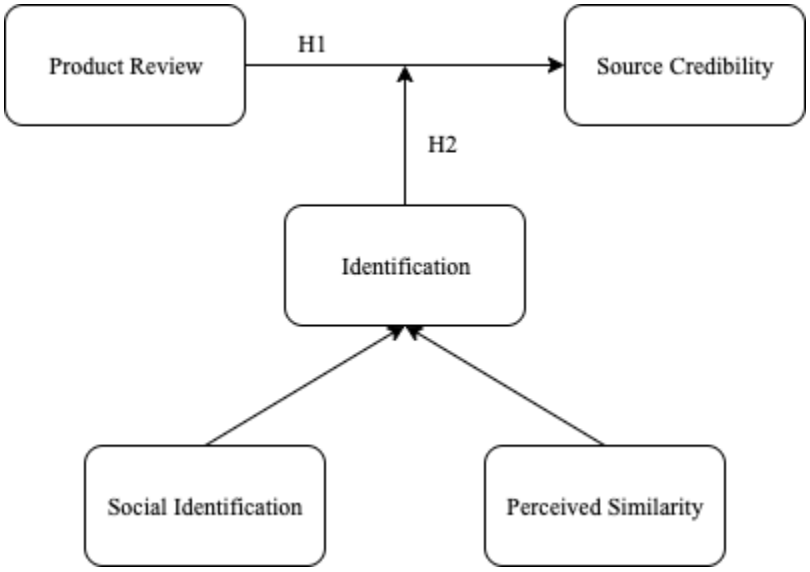
The main objective of the current study was to investigate how credible people find influencers when they see a truthful or deceptive product review. This research focused on the perceived credibility of consumers when they see a truthful product review versus a deceptive product review moderated by the strength of the relationship with the influencer. This study sought to determine whether you tell people it is a truthful review or not, it influences source credibility. Quantitative research was used for this study, which relied on an experiment with a questionnaire.

To test the hypothesis and answer the research question: "*To what extent does the type of review (deceptive vs. truthful) affect source credibility and to what extent is this effect moderated by identification with the influencer?*", an experiment using a between-subjects design was performed. The independent variable was the type of product review, deceptive versus truthful.

The moderator of this study was the identification with the influencer, consisting of social identification and perceived similarity. This moderator was expected to affect the strength and direction of the relationship between the type of product review and the source credibility, meaning that the relationship between product review and the source credibility differs between the strength of the relationship with the influencer. The dependent variable in this study was source credibility, influenced by expertise, trustworthiness, and attractiveness. Source credibility was measured before and after that the deceptiveness of the review was explained. The conceptual model can be seen in Figure 1.

Figure 1

Conceptual Model of the Study



Stimuli

An influencer profile on Instagram was created for the experiment. This profile showed the interests of the influencer and what they stand for, allowing the participant to assess how much they identified with the influencer. During the procedure, an Instagram post was made and

showed on this influencer's profile. This post advertised the product that the participant would later be required to review. Customer reviews were also made for participants to see, with either positive or negative reviews. These negative customer reviews are a trigger for deception according to the Truth-Default Theory, allowing people to recognize deception. Appendix A contains all of the study's materials.

Participants

The sample size for the main study was calculated with G*Power (3.1.9.7). In order to detect a small effect size of $f^2 = .05$, with $\alpha = .05$ and $\beta = .80$, a sample size of 196 would be necessary to achieve sufficient power. To understand the perceived credibility toward influencers regarding truthful and deceptive product reviews, 207 participants took part in the experiment to indicate how credible they found the influencer. Participants were recruited through convenience sampling. 40 participants who did not complete the questionnaire and wanted their data deleted were removed.

Dependent Measures

Source Credibility

Based on Ohanian's model (1990), three factors were used to measure the dependent variable of this study: expertise, trustworthiness, and attractiveness (Ohanian, 1990). Each component of source credibility consists of five semantically distinct elements that are rated on a 7-point scale (Bearden, 2011). Thus, the questionnaire consisted of 15 statements to which respondents had to answer using a 7-point Likert scale. The reliability of the scale before the reviews was good, $\alpha = .89$, and after the reviews the reliability of the scale was excellent, $\alpha = .95$.

Social Identification

Three statements based on Leach et al. (2008) were used to assess social identification with the influencer. An example item was: I feel solidarity with the influencer (1 = totally disagree; 7 = totally agree). The reliability of the scale was good, α = .89.

Perceived similarity

Five statements based on Hoffner and Buchanan (2005) were used to assess perceived similarity. An example item was: 'This influencer and I have a lot in common' (1 = totally disagree; 7 = totally agree). The reliability of the scale for perceived similarity was good, α = .89.

Procedure and Data Collection

Before the participants underwent the experiment, they first had to read the instructions and agree to participate (see Appendix B and C). After they did so, demographic questions were asked including age, gender, and education level. Once they had completed this, the experiment began. The participants were then shown the influencer's Instagram profile. Social identification and perceived similarity were measured: how strongly one identifies and perceives similarities with the influencer. Following, participants had to fill in the source credibility of the influencer they had seen. Source credibility was measured using Ohanian's (1990) model of source credibility that consists of expertise, trustworthiness, and attractiveness. Then, participants were shown a product review that the influencer in question had supposedly created, and participants read the product review. Next, participants were shown customer reviews of the product that the influencer reviewed, which were either positive or negative. The participants were randomly assigned to one of the customer reviews. These customer reviews either reinforced or did not reinforce the influencer's product review, allowing the participants to see if the influencer was telling the truth or not. Finally, after this, the credibility of the source was measured again to see

if it had an impact on perceived credibility. In this way, it was possible to determine whether people were influenced by the knowledge of the type of review they have seen, and thus whether this changed the source credibility. At the end of the questionnaire, control questions were asked to determine whether the participants actually knew what they had seen and if they considered they had seen a truthful or deceptive review. This allowed the manipulation check to be determined.

The data from the quantitative research experiment were collected using the online program Qualtrics (see Appendix D). The method used was convenience sampling, which is a type of non-probability sampling. By using this sampling approach, it was possible to reach people who were most easily accessible to the researcher for participation in the experiment. The questionnaire was sent through the researcher's network. At the start of the questionnaire, a brief introduction was provided, followed by informed permission for the study. After this, participants were randomly assigned to one of the product reviews. Several questions were asked about the product review the participants saw. Respondents were debriefed after completing the questionnaire (see Appendix E).

Data Analysis

To test the hypotheses, a moderation model was built with Jamovi 2.2.2. A reliability analysis was performed for the dependent and moderator variables.

Results

A total of 247 participants participated in the study, of which 40 were removed because they did not complete the questionnaire, answered the control questions incorrectly, or did not complete all the answers making the questionnaire incomplete. In total, 207 respondents completed the online Qualtrics questionnaire, of which 24.9% (52) were males, 71.8% (150)

were females and 3.3% (5) others. Their mean age was 25 years (*SD* = 6.8). Of these respondents, 20 completed a high school diploma or an equivalent, 77 did or is doing a bachelor, 96 did or is doing a master's degree.

Preliminary check

Because the influencer used in this study was a male, there could be a gender mismatch between the influencer and the participants, as the majority of participants were female. To rule out whether a gender mismatch between the influencer and the participants could affect the outcome, additional analysis was done on this. Results showed that there are no differences in how respondents perceive the credibility of the influencer depending on their gender, before the manipulation $F(1, 80.1 = 0.23, p = .632)$ and after the manipulation $F(1, 88.1 = 0.84, p = .361)$. Thus, re-running the analyses, separating the gender of the participants, did not change the results, suggesting that participants of each gender gave similar responses and had no effect on the credibility of the influencer. More details of this analysis can be found in Table 1.

Table 1

The Credibility of the Influencer Depending on the Gender of Participants

	F	df1	df2	p
Source Credibility T1	0.2316	1	80.1	0.632
Source Credibility T2	0.8423	1	88.1	0.361
Attractiveness T1	0.0369	1	84.5	0.848
Attractiveness T2	0.5407	1	84.4	0.464
Trust T1	0.047	1	88.4	0.829
Trust T2	0.3198	1	93.8	0.573

	F	df1	df2	p
Expertise T1	0.5152	1	78.9	0.475
Expertise T2	1.4083	1	87.7	0.239
Difference Attractiveness T1-T2	0.8116	1	90.8	0.37
Difference Trust T1-T2	0.1807	1	95.6	0.672
Difference Expertise T1-T2	0.639	1	106.6	0.426
Difference Source Credibility T1-T2	0.6268	1	98.2	0.43

Note. T1 represents the measurement before the manipulation and T2 after the manipulation. Source credibility consists of three components: attractiveness, trust and expertise, these were measured separately and together.

Manipulation Check

In order to test for the deception induction manipulation, we evaluated whether the negative reviews lead participants to assume that the influencer was deceptive in his product sponsoring. The manipulation was effective, with χ^2 (2) = 135, $p < .001$. Negative reviews lead to more deceptive evaluations of the influencer (deceptive = 95%, honest = 3%, does not remember = 2%), while positive reviews induced more honest evaluations of the influencer (honest = 83%, deceptive = 15%, does not remember = 2%).

Independent Samples Welch's *t*-test

Assumption Checks

The assumption of normality was assumed, The Shapiro-Wilk statistic associated with these data is $W = .99$, indicating that no significant departures from normality were detected ($p = .24$). The assumption of homogeneity of the variances test was not assumed $F(1, 203 = 9.95, p =$

.002). Therefore, the p-value may not be reliable, and more weight should be placed on the bootstrapped 95% confidence interval that will be provided. Source credibility was measured with a scale consisting of 15 items on a 7-point Likert scale (e.g., 'The influencer is an expert'). The reliability of the scale before the reviews was good, $\alpha = .89$, and after the reviews the reliability of the scale was excellent, $\alpha = .95$.

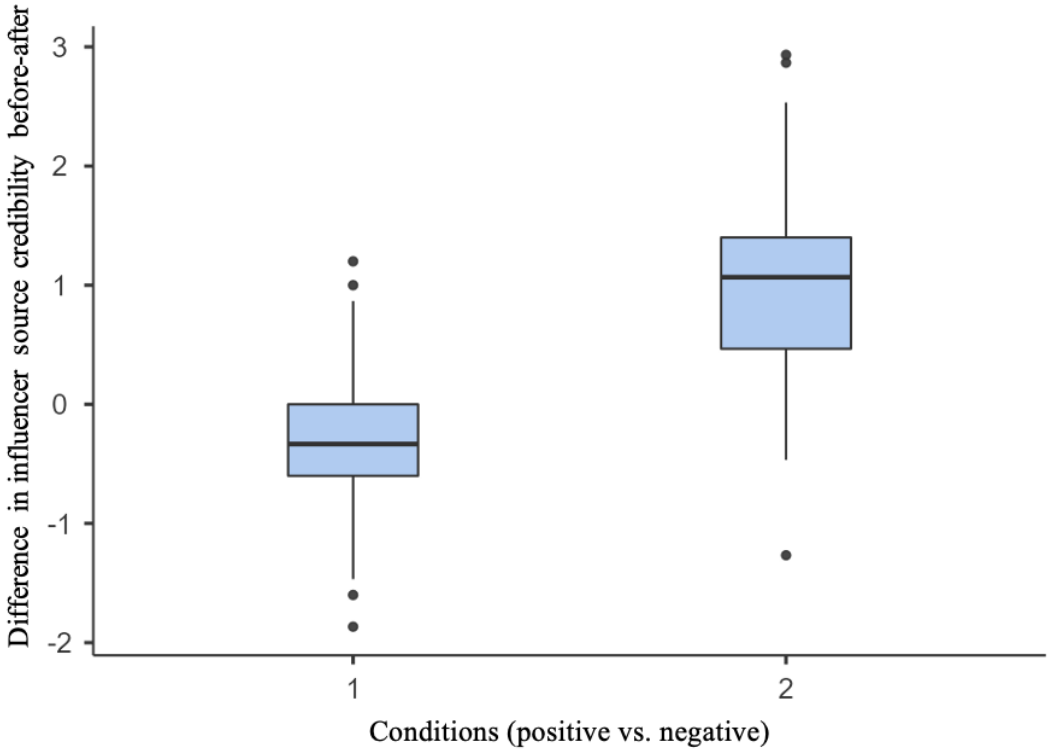
Hypothesis Testing

To test whether a truthful product review will have a more positive effect on source credibility than a deceptive review, an independent samples Welch's t-test[1] was performed. The mean perception of positive customer reviews was -.31 ($SD = 0.53$), whereas the mean perception of negative customer reviews was 0.99 ($SD = 0.72$). The robust independent samples t-test showed that this -0.5% difference was significant ($t(184) = 14.76$, $p > .001$, CI95 = [-1.48, -1.13], $d = -2.07$), suggesting that a genuine difference in type of review has occurred. When the mean score is negative, it suggests that the score improved after the review, i.e., when a participant read favorable reviews, the influencer's credibility increased. This was also true in the opposite direction: when a participant read unfavorable reviews, their belief in the influencer decreased. Hence, H1 was supported. Figure 2 shows the difference in influencer source credibility by condition.

[1] In line with Delacre et al. (2017).

Figure 2

Boxplot of Difference in Influencer Source Credibility by Condition



Multiple Regression Analysis

Assumption Checks

Scatterplots show that the assumption of linearity is met. Analysis of collinearity statistics show this assumption has been met, as VIF scores were well below 10, and tolerance scores above 0.2 (VIF = 1.82 and Tolerance = .55). The Durbin-Watson statistic showed that the assumption of independence has been met, as the obtained value was close to 2 (Durbin-Watson value = 2.02). The plot of standardized residuals vs standardized predicted values showed no obvious signs of funneling, suggesting the assumption of homoscedasticity has been met. The P-P plot for the model suggested that the assumption of normality of the residuals has been met. Perceived similarity was measured with a scale consisting of 5 items on a 7-point Likert scale

(e.g., 'The influencer is like me'). The reliability of the scale for perceived similarity was good, α = .89. Social identification was measured with a scale consisting of 3 items on a 7-point Likert scale (e.g., 'I feel a bond with the influencer'), the reliability of the scale was also good, α = .89.

Hypothesis Testing

To investigate whether the type of review influences the credibility of the influencers and whether this is moderated by social identification and perceived similarity, a multiple regression analysis was performed. The results of the regression indicated that the model explained 52.9% of the variance. The overall model was a significant predictor of source credibility, $F(4,199) = 55.8$, $p < .001$. Perceived deceptiveness of the review influenced the credibility of the influencer, $b = 1.28$ (SE = 0.20), β = 1.53, $t = 6.43$, $p < .001$. Perceived deceptiveness explains 52% of the variance, $F(1, 202) = 219.1$, $p < .001$. It was found that perceived similarity did not significantly predict source credibility $b = 0.01$, (SE = 0.06), β = -0.02, $t = 0.12$, $p = .905$. Perceived similarity did not improve the predictive capacity of the model and thus did not contribute to the multiple regression model. It was also found that social identification did not significantly predict source credibility $b = -0.04$, (SE = 0.07), β = -0.18, $t = 0.66$, $p = .510$. Social identification did not improve the predictive capacity of the model and thus did not contribute to the multiple regression model. The final predictive model was source credibility = -0.34+ 1.28*Condition + (0.01*perceived similarity) + (-0.04*social identification) + (0.01*perceived similarity*social identification). Hence, H2 is not supported and thus identification, explained by perceived similarity and social identification, did not predict source credibility.

Discussion

The purpose of this study was to see if the type of product review affected source credibility and if the bond with the influencer increased source credibility. It was predicted that

truthful reviews would increase source credibility more than deceptive reviews, and that greater identification with the influencer would increase source credibility more than a weaker bond. The findings revealed that a truthful product review had a more positive effect on source credibility than a deceptive review. However, no moderator effect of identification with the influencer was found; the abovementioned effect did not become stronger or weaker when people could identify with the influencer.

Reliability and Validity

The impact of several criteria, as defined in Ohanain's (1990) Source Credibility theory, on the perception of credibility of influencers by individuals was investigated using a questionnaire in this study. After that, 207 people in a representative sample of the current population completed the questionnaire. As a result, it is possible to assume that if this study were duplicated, the results would be the same, showing that the findings are reliable. Calculation with G*Power with a sample size of 196 would be necessary to achieve sufficient power, meaning that a sufficient number of people were questioned ($N = 207$). This increased external validity, allowing the results to be more confidently generalized to the population.

The reliability of the study was good because the items used to measure the concepts (scales) correlated with each other. The Cronbach's Alpha was .80 or higher for each scale. This confirmed the internal consistency of the study.

Findings and explanations

The findings of the survey showed that negative reviews of influencers lead to a reduction in the credibility of the influencer. This result is consistent with the expectation that a truthful product review will have a more positive effect on the credibility of the influencer than a deceptive review (Cheung et al., 2009). The results indicated that the influencer's credibility

improved when a participant read positive evaluations by customers. This was also true in the opposite direction: when a participant read negative evaluations by customers, their trust in the influencer decreased. This is indeed in line with the literature (Friestad & Wright, 1994; Nelson et al., 2009).

Furthermore, the findings revealed that identification with the influencer had no effect on the strength of the aforementioned relationship; identification was not a moderator between type of review and source credibility. This result contradicts the idea that the more someone identifies with the influencer and perceives similarities with the influencer, the more credible the influencer becomes (Ajzen & Fishbein, 1977). It suggests that the deception effect is independent of the relationship one has with the influencer. This implies that, despite the stronger relationship between the consumer and the influencer, deceptive influencers continue to lose credibility. Even if there is a strong relationship between consumer and influencer, if the influencer still proclaims deceptive information, the credibility of the influencer will still decrease for the consumer.

But another possible explanation for this result is that the influencer shown in the survey had specific interests, such as ecology, photography and traveling, so hence not everyone could relate to them. Future research can address this and use different influencers (e.g., male, female) in combination with various interests. To evaluate this fit, future research should question whether the participant shares the same interests as the influencer presented. This is also something that this study lacks.

Another reason may be that identification with an influencer can be measured in different ways and there exists different scales for measuring this construct. The construct was measured using two scales in this study; however, identification can be measured in several ways. For example, the measure of the self-influencer congruence, which is the degree to which an

individual considers a product or brand as consistent with how they perceive themselves, is referred to as self-congruity (Sirgy, 1982). Consumers are more inclined to pay attention to and acquire items from companies that mirror their self-concept, according to self-congruity theory (Basil, 1996). Future study is needed to determine whether additional assessments of this construct influence the strength of the relationship between review type and source credibility.

A final explanation for this may be that identification is not yet occurring because they did not know the influencer used in this study. When you already know, follow or like the influencer you see, it will affect how strong a person experiences the connection with the influencer (Munnukka et al., 2019). So future research can look at influencers that participants already know or have a connection with, such as a parasocial relationship, and see if this does matter for the strength of the relationship between review type and source credibility.

The current study adds to the existing literature on misleading influencer reviews because previous studies have not provided conclusions about the difference in influencer credibility between truthful and deceptive product reviews. The current study also builds on previous studies by providing new insights into the effects of influencers' use of misleading ads. Therefore, the finding that deceptive product reviews on Instagram lead to the reduction of influencers' credibility can be added to previous studies on social media advertising.

Implications

The findings of this study are useful to influencers and brands on a practical level. This research shows that when an influencer promotes misleading information, and the viewer realizes this, that the credibility of the influencer by the consumer is lowered. This means for influencers that it is important that they speak the truth about products they endorse because otherwise followers may form a negative opinion about them.

In addition, these findings are also important for brands. As influencers sell their products, these influencers become associated with the brand they are promoting. Therefore, if the influencers receive negative attention, or lowers their credibility, this also indirectly affects the brand. Brands therefore need to encourage influencers to be honest. So even though influencers and brands want to portray the most positive image of the product, it is important that the reviews are realistic because otherwise credibility can deteriorate.

Limitations and Suggestions for Further Research

This study contains limitations that need to be highlighted in addition to its valuable findings. First, the current study was unable to apply a real-world scenario to the usage of Instagram, which may have influenced the message's perceived legitimacy. The influencer's profile and posts were visible to participants in this study on Instagram; however, the consumer reviews were not visible on Instagram or on the product's website, but rather as independent reviews. In a typical setting, participants would normally read the reviews right below the post or on the website where they may purchase the product. Future research should provide a more realistic atmosphere, where individuals can read other people's evaluations right beneath the post or go to the product's website and read them there. Participants are more likely to feel like they are truly on Instagram because of this, which better mimics reality.

Second, this study's social influencer stimulus may have been pre-tested to get additional information about how participants perceived the influencer. It is possible that participants had significant unfavorable views about the social influencer as a result of his hobbies or the appearance of his profile, which impacted their reactions to the advertising. Future studies should examine this in advance to guarantee that the modification has a positive impact on participants' perceptions.

Lastly, a shortcoming is that this study focused on no specific target population. Differences between, for example, various age groups may be investigated when employing a specific target group, since they have different interests, use social media for different purposes, and may regard influencers differently. In this way, different groups can be identified and, moreover, more specific statements can be made.

As described above, future research can use other materials that better connect with different people so that they see an influencer who looks like them and they can identify with. For example: Male influencer, male interests vs. male influencer, female interests vs. female influencer, female interests vs. female influencer, male interests. The research can look at the influencer's fit as well as the fit between the influencer and the respondent. The impact of product-influencer fit on source credibility can then be investigated in future studies.

If it wants to go a step further, it can also look at the type of product the influencer is promoting. Research by Janssen et al. (2021) has shown that the product-influencer fit is a primary driver of influencer endorsement effects. Influencers position themselves as experts or representatives in a specific field, which allows their influencer brand personality to naturally align with companies and products promoted in that field (Schouten et al., 2019). Future research could look at the effects of the product-influencer fit on source credibility.

Another recommendation, as we discussed above, future studies could be using other constructs instead of identification. Such as parasocial interaction (PSI) or parasocial relationship (PSR). Parasocial relationship is the imaginary sense of an in-person relationship with a media figure and interpersonal engagement with that person (Horton & Richard Wohl, 1956; Rubin et al., 1985). Despite the fact that this relationship is imaginary, the feeling has been shown to be extremely strong (Munnukka et al., 2019). On the other hand, parasocial interaction (PSI) refers

to the imaginary sense of the interaction with a media figure (Horton & Richard Wohl, 1956). Whereas PSI takes place during watching the media figure, PSR describes more the feeling of preference toward the media figure and either a short- or long-term commitment to the media figure (Dibble et al., 2015). Thus, these measures could be used in the future.

Finally, future studies might analyze and perhaps compare the impact of different platforms and types of content using other platforms and types of content. This study used photo content and focused on Instagram. Other platforms and content, such as TikTok or video content, might be used in future studies, as video content and platforms are rapidly developing and becoming more popular (Janssen et al., 2021).

Conclusion

This research provides essential information about advertising with social influencers and their credibility. In short, based on the results of the current study, it can be concluded that when people see an influencer endorsement and believe it contains deceptive information, the credibility of the influencer is lowered. In addition, when people think that the influencer is telling the truth, the credibility of the influencer rises. As a result, it is possible to conclude that deceptive information in influencer endorsements leads to a negative attitude whereas truthful information leads to a positive attitude. It is important for influencers and brands that the reviews are realistic because otherwise credibility (of both) may decrease.

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Appendices

Appendix A

Stimuli materials

Figure 3

Stimuli Material of the Influencer's Instagram Profile

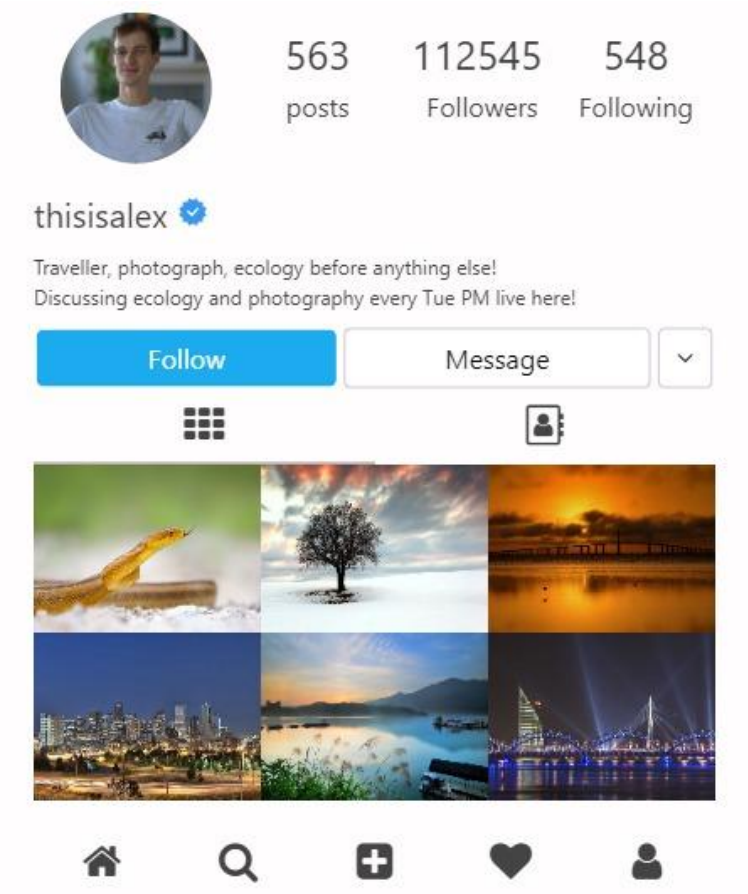


Figure 4

Stimuli Material of the Influencer's Instagram Post

Figure 5

Positive Customer Reviews

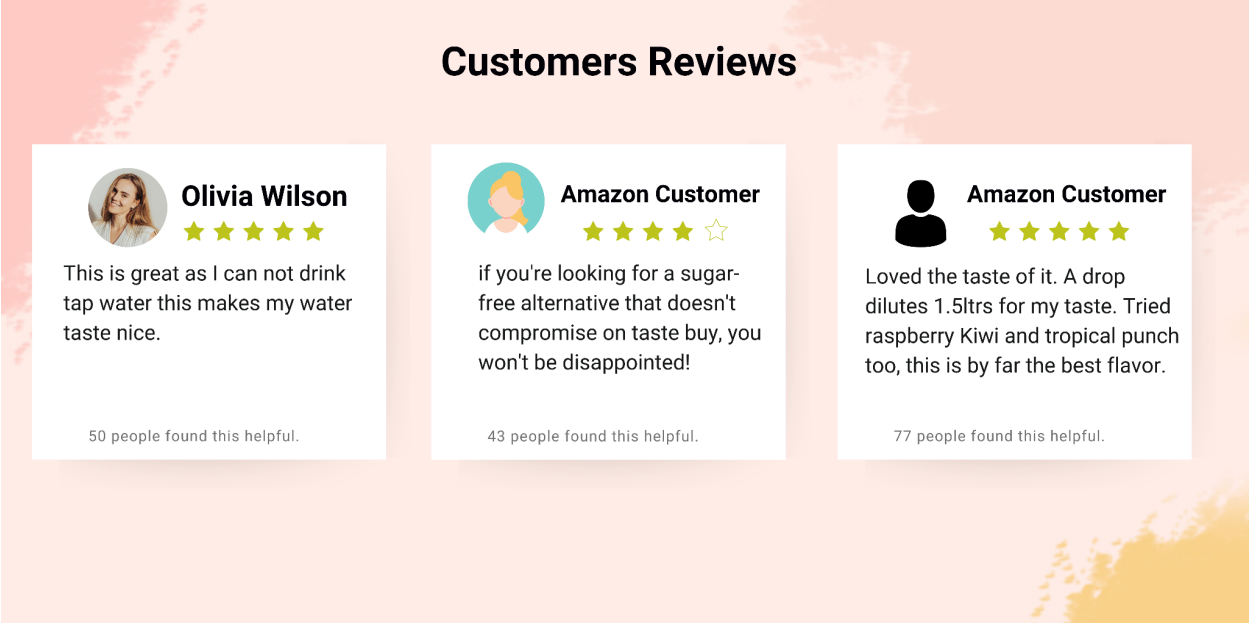
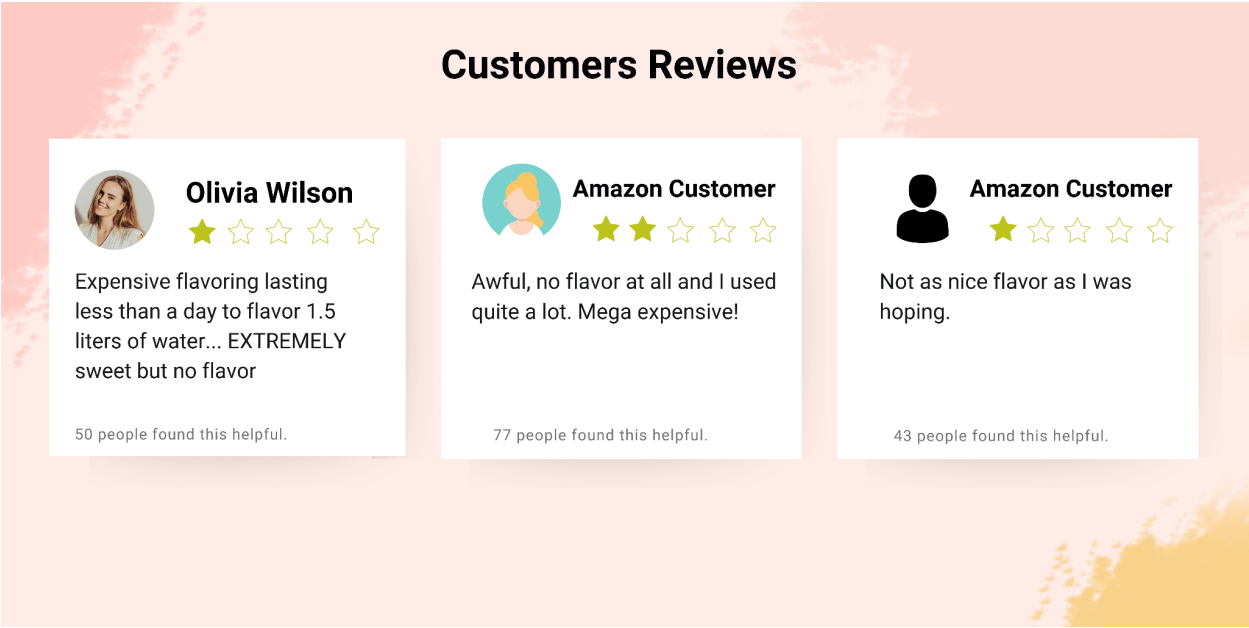


Figure 6

Negative Customer Reviews



Appendix B

Information Letter

Welcome!

I would like to ask you to participate in my Master's thesis research for the study of Communication and Information Sciences at Tilburg University.

First of all, thank you very much for participating in this study of Tilburg University about influencers and product reviews. Below you can read all the information needed before you can start the research, so please read it carefully. With this research we want to gain more insight into how credible people find influencers when they read a product review. Therefore, you will soon be given a product review to read and about this you have to answer some questions. The findings will be used to write a research report.

Participation in this research will take about 10 minutes. The experiment consists of a number of different parts.

If you decide to participate in the questionnaire, you can withdraw at any time without giving a reason by simply closing the web page or clicking on the button at the end of the questionnaire. If you decide to withdraw, your answers will not be used in the final results. There are no risks involved in participating in this study. All data collection will be in accordance with the new AVG (General Data Protection Regulation) rules and the Research Ethics and Data Management Committee of Tilburg School of Humanities and Digital Sciences has given permission to

conduct this study. Data will be processed completely anonymously and will be treated with utmost confidentiality. In no case will your name be linked to the results, as you will be assigned a unique code at the beginning of the study. The anonymized data from this study will be kept for 10 years, and data can only be shared with other researchers upon request.

The study is completely voluntary and during the study you have the right to withdraw at any time, for any reason and without any adverse consequences. If you have any questions about the study at a later time, you can contact Karlijn de Bont at the following e-mail address k.debont@tilburguniversity.edu.

Thank you in advance for your contribution to my Master's thesis research.

Appendix C

Consent

To ensure that you consent to this study, you confirm and acknowledge that you:

- have carefully read the above information;
- are over 18 years, or older;
- participation in this study is voluntary;
- know you can withdraw at any time and without giving a reason;
- agree that your anonymized data will be kept for ten years;
- agree that the anonymized data may be used for possible follow-up research or scientific publications;
- agree that the anonymized data may be shared with other researchers.

I agree and want to start the experiment.

I do not agree and do not wish to participate in this study.

Appendix D

Questionnaire

Survey Flow

Standard: Introduction/consent (2 Questions)
Standard: Demographic questions (3 Questions)
Standard: Introduction Alex (1 Question)
Standard: Profile Alex (2 Questions)
Standard: Dependent measures: Social Identification & perceived similarity (2 Questions)
Standard: Introductie (1 Question)
Standard: Post (2 Questions)
Standard: Dependent Measures: Source Credibility 1 (3 Questions)
Standard: Introductie Review (1 Question)
BlockRandomizer: 2 - Evenly Present Elements
- **Standard: Versie 1 (2 Questions)**
- **Standard: Versie 2 (2 Questions)**

Standard: Dependent Measures: Source Credibility 2 (3 Questions)
Standard: Control Questions (3 Questions)
Standard: Debriefing (1 Question)

Page Break

Start of Block: Introduction/consent

Q1 Welcome!
I would like to ask you to participate in my Master's thesis research for the study of Communication and Information Sciences at Tilburg University.

First of all, thank you very much for participating in this study of Tilburg University about influencers and product reviews. Below you can read all the information needed before you can start the research, so please read it carefully. With this research we want to gain more insight into how credible people find influencers when they read a product review. Therefore, you will soon be given a product review to read and about this you have to answer some questions. The findings will be used to write a research report.

Participation in this research will take about 10 minutes. The experiment consists of a number of different parts.

If you decide to participate in the questionnaire, you can withdraw at any time without giving a reason by simply closing the web page or clicking on the button at the end of the questionnaire. If you decide to withdraw, your answers will not be used in the final results. There are no risks involved in participating in this study. All data collection will be in accordance with the new General Data Protection Regulation (GDPR) rules and the Research Ethics and Data Management Committee of Tilburg School of Humanities and Digital Sciences has given permission to conduct this study. Data will be processed completely anonymously and will be treated with utmost confidentiality. In no case will your name be linked to the results, as you will be assigned a unique code at the beginning of the study. The anonymized data from this study will be kept for 10 years, and data can only be shared with other researchers upon request.

The study is completely voluntary and during the study you have the right to withdraw at any time, for any reason and without any adverse consequences. If you have any questions about the study at a later time, you can contact Karlijn de Bont at the following e-mail address k.debont@tilburguniversity.edu.

Thank you in advance for your contribution to my Master's thesis research.

P.S.: This survey contains a completion code for SurveySwap.io

Q2
To ensure that you consent to this study, you confirm and acknowledge that you: have carefully read the above information; are over 18 years, or older; participation in this study is voluntary; know you can withdraw at any time and without giving a reason; agree that your anonymized data will be kept for ten years; agree that the anonymized data may be used for possible follow-up research or scientific publications; agree that the anonymized data may be shared with other researchers.

- ○ I agree with the above information, proceed to questionnaire (1)
- ○ I do not agree to the above information and hereby discontinue my participation in this study (2)

Skip To: End of Survey If Q2 = 2

End of Block: Introduction/consent

Start of Block: Demographic questions

Q3 What is your age (in years)?

_____

Q4 What gender do you identify with?

- ○ Male (1)
- ○ Female (2)
- ○ Non-binary / third gender (3)
- ○ I prefer not to say (4)

Q5 What is your highest (or current) level of education?

- ○ Less than a high school diploma (7)
- ○ High school degree or equivalent (2)
- ○ Bachelor's Degree (3)
- ○ Master's Degree (4)
- ○ Doctorate (e.g., PhD) (5)
- ○ Other, please specify: (6) _____

End of Block: Demographic questions

Start of Block: Introduction Alex

Q6 You will now see a profile by an influencer called Alex. Please read it **carefully** because you will be asked questions about this afterward. Also, you will **not** be able to go back to the information

End of Block: Introduction Alex

Start of Block: Profile Alex

Q7 **Meet Alex!**
Alex is a young influencer who recently got a lot of attention because he discussed his two passions in life on his profile: photography and ecology! He is known for his sympathy and clarity when he explains technical issues regarding photography and environment.

Q55 Timing
First Click (1)
Last Click (2)
Page Submit (3)
Click Count (4)

End of Block: Profile Alex

Start of Block: Dependent measures: Social Identification & perceived similarity

Q8 Think about the influencer you just saw. On a scale from totally disagree to totally agree, to what extent do you agree with the statements below?

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither disagree nor agree (4)	Somewhat agree (5)	Agree (6)	Strongly Agree (7)
I feel a bond with the influencer (1)	○	○	○	○	○	○	○

I feel solidarity with the influencer (2)	○	○	○	○	○	○	○
I feel committed to the influencer (8)	○	○	○	○	○	○	○

Q9 Think about the influencer you just saw. On a scale from totally disagree to totally agree, to what extent do you agree with the statements below?

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither disagree nor agree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
This influencer thinks like me (1)	○	○	○	○	○	○	○
This influencer is similar to me (4)	○	○	○	○	○	○	○
This influencer behaves like me (2)	○	○	○	○	○	○	○
This influencer is unlike me (3)	○	○	○	○	○	○	○

This influencer and I have a lot in common (5)	○	○	○	○	○	○	○

End of Block: Dependent measures: Social Identification & perceived similarity

Start of Block: Introductie

Q10 You will now see an Instagram post by Alex. Please read the post **carefully** because you will be asked questions about this afterward. Also, you will **not** be able to go back to the Instagram post.

End of Block: Introductie

Start of Block: Post

Q11 Please read the post carefully. The continue button will appear shortly.

Timer Timing
First Click (1)
Last Click (2)
Page Submit (3)
Click Count (4)

End of Block: Post

Start of Block: Dependent Measures: Source Credibility 1

Q12 Please rate the influencer (Alex) you just saw on the following aspects ('I think this influencer is....')

	1 (1)	2 (2)	3 (3)	(4)	(5)	(6)	(7)	
Attractive	○	○	○	○	○	○	○	Unattractive
Not classy	○	○	○	○	○	○	○	Classy
Ugly	○	○	○	○	○	○	○	Beautiful
Plain	○	○	○	○	○	○	○	Elegant
Sexy	○	○	○	○	○	○	○	Not sexy

Page Break

Q13 Please rate the influencer (Alex) you just saw on the following aspects ('I think this influencer is....')

	1 (1)	2 (2)	3 (3)	(4)	(5)	(6)	(7)	
Undependable	○	○	○	○	○	○	○	Dependable
Dishonest	○	○	○	○	○	○	○	Honest
Reliable	○	○	○	○	○	○	○	Unreliable

Sincere	○	○	○	○	○	○	○	Insincere
Untrustworthy	○	○	○	○	○	○	○	Trustworthy

Page Break

Q14 Please rate the influencer (Alex) you just saw on the following aspects ('I think this influencer is....')

	1 (1)	2 (2)	3 (3)	(4)	(5)	(6)	(7)	
Expert	○	○	○	○	○	○	○	Not an expert
Inexperienced	○	○	○	○	○	○	○	Experienced
Unknowledgeable	○	○	○	○	○	○	○	Knowledgeable
Qualified	○	○	○	○	○	○	○	Unqualified
Skilled	○	○	○	○	○	○	○	Unskilled

End of Block: Dependent Measures: Source Credibility 1

Start of Block: Introductie Review

Q15 You will now be shown three customer reviews about the product Alex was promoting in this Instagram post. Read those carefully and consider the influencer's post you just saw. After this, you will be asked questions about the review.

End of Block: Introductie Review

Start of Block: Versie 1

Q16B Please read the following customer reviews carefully.

Q54 Timing
First Click (1)
Last Click (2)
Page Submit (3)
Click Count (4)

End of Block: Versie 1

Start of Block: Versie 2

Q16A Please read the following customer reviews carefully.

Q53 Timing
First Click (1)
Last Click (2)
Page Submit (3)
Click Count (4)

End of Block: Versie 2

Start of Block: Dependent Measures: Source Credibility 2

Q17 Re-assess the influencer (Alex) on the following aspects after reading the customer reviews ('I think this influencer is....')

	1 (1)	2 (2)	3 (3)	(4)	(5)	(6)	(7)	
Attractive	○	○	○	○	○	○	○	Unattractive
Not classy	○	○	○	○	○	○	○	Classy
Ugly	○	○	○	○	○	○	○	Beautiful
Plain	○	○	○	○	○	○	○	Elegant
Sexy	○	○	○	○	○	○	○	Not sexy

Page Break

Q18 Re-assess the influencer (Alex) on the following aspects after reading the customer reviews ('I think this influencer is....')

	1 (1)	2 (2)	3 (3)	(4)	(5)	(6)	(7)	
Undependable	○	○	○	○	○	○	○	Dependable
Dishonest	○	○	○	○	○	○	○	Honest
Reliable	○	○	○	○	○	○	○	Unreliable

Sincere	○	○	○	○	○	○	○	Insincere
Untrustworthy	○	○	○	○	○	○	○	Trustworthy

Page Break

Q19 Re-assess the influencer (Alex) on the following aspects after reading the customer reviews ('I think this influencer is....')

	1 (1)	2 (2)	3 (3)	(4)	(5)	(6)	(7)	
Expert	○	○	○	○	○	○	○	Not an expert
Inexperienced	○	○	○	○	○	○	○	Experienced
Unknowledgeable	○	○	○	○	○	○	○	Knowledgeable
Qualified	○	○	○	○	○	○	○	Unqualified
Skilled	○	○	○	○	○	○	○	Unskilled

End of Block: Dependent Measures: Source Credibility 2

Start of Block: Control Questions

Q20 Based on the customer reviews you saw, you would say this influencer's post is… [fill in the dots]

- truthful (1)
- deceptive (2)
- I did not see what kind of product review it was (3)

Q21 I found the product review realistic

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither disagree nor agree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

Q22 After reading the user reviews, I changed my mind about the influencer

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)

- ○ Neither disagree nor agree (4)
- ○ Somewhat agree (5)
- ○ Agree (6)
- ○ Strongly agree (7)

End of Block: Control Questions

Start of Block: Debriefing

Q23 This is the end of this study. Thank you again for your participation! **Don't forget to click the 'next' button!**

This study focused on the distinction between truthful and deceptive reviews by influencers. This study was about the perceived credibility by participants of influencers when writing a product review and how it differs between influencers who write an honest review and influencers who write a deceptive review. One group was shown a deceptive review and the other group was shown a truthful review, after which you had to answer questions about the credibility of the influencer.

Influencer marketing represents an important channel for external company revenue. An increasing number of companies are using sponsorship strategies to promote their products. This win-win situation, in which the influencer is paid to promote a product and the company expects a return on investment, may involve immoral behavior by the influencer. For example, some may conduct misleading product reviews to fulfill their contractual obligations with the outside company, even though they never tested the product presented. Your results contribute to this!

Do you have any questions or comments? Please contact Karlijn de Bont (k.debont@tilburguniversity.edu).

End of Block: Debriefing

Appendix E

Debriefing

This is the end of this study. Thank you again for your participation!

This study focused on the distinction between truthful and deceptive reviews by influencers. This study was about the perceived credibility by participants of influencers when writing a product review and how it differs between influencers who write an honest review and influencers who write a deceptive review. One group was shown a deceptive review and the other group was shown a truthful review, after which you had to answer questions about the credibility of the influencer.

Influencer marketing represents an important channel for external company revenue. An increasing number of companies are using sponsorship strategies to promote their products. This win-win situation, in which the influencer is paid to promote a product and the company expects a return on investment, may involve immoral behavior by the influencer. For example, some may conduct misleading product reviews to fulfill their contractual obligations with the outside company, even though they never tested the product presented. Your results contribute to this!

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